

**THE MANAGEMENT OF THE EFFECTS OF A HURRICANE:
A STUDY OF HIGHER EDUCATION CRISIS MANAGEMENT PROCESSES
AS VIEWED THROUGH A PERFORMANCE MANAGEMENT SYSTEM**

A Dissertation

by

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ABSTRACT

On September 13, 2008, Hurricane Ike, a huge storm with tropical storm force or greater winds extending 275 miles from the eye, made landfall in Galveston, Texas submerging over 75% of the city. In response to this crisis, Texas A&M University at Galveston, a small ocean oriented satellite school of 2000 students, deployed a never-before-attempted business continuity plan, relocating 91% of the student body and campus operations 150 miles inland to the mother campus of Texas A&M University in nine days. As a result, Texas A&M University at Galveston successfully weathered the storm and enjoyed a record enrollment the following spring semester.

This dissertation utilized a case study methodology to look at the approach/planning process that went into the plan, the deployment of the plan, and the learning that took place throughout the crisis. In addition, the case study was considered through the use of a performance management system, specifically the Quality Texas Foundation - Engagement Level Criteria based on the Malcom Baldrige Quality Management Criteria, to determine whether this criteria might be appropriate for assessing future crisis response in higher education. All Texas A&M University at Galveston crisis team members were interviewed using the criteria to guide the discussion.

The study revealed that the approach taken by the Texas A&M University at Galveston crisis team members was very timely in that a number of significant changes were implemented in the plan only a year prior to Hurricane Ike, initiated in response to

Hurricanes Katrina and Rita's impact on other universities. Furthermore while the approach outlined a plan that guided the relocation effort, significant areas that were not directly related to the relocation of the students, such as plans for the workforce not directly involved in the relocation and community involvement, were not adequately addressed. In deployment of the plan, the development of guiding principles to further align the thousands of decisions that would take place proved critical. The study further identified that the crisis team members incorporated learning into the approach and deployment of the plan, and established a very comprehensive assessment process immediately after the crisis. The study also revealed a number of valuable lessons for practice for use by other institutions as they develop their own crisis management plans. Lastly, the Quality Texas Foundation - Engagement Level Criteria provided a solid platform for crisis management assessment in higher education, particularly in large scale disaster type crises.

DEDICATION

I dedicate this work to my family:

My father who instilled the value of education in me;

My mother who instilled the discipline and drive to push ever further;

My wife whose love and constant support made it all possible; and

My daughter, Claire, who gave me plenty of wonderful study breaks, but more importantly, the chance to spend even more time with her gave me the reason to finish it.

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TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vii
LIST OF FIGURES.....	xi
LIST OF TABLES.....	xii
CHAPTER I INTRODUCTION	1
Statement of the Problem.....	3
Purpose of the Study.....	4
Research Questions.....	4
Operational Definitions.....	5
Assumptions.....	12
Limitations.....	13
Significance of the Study.....	13
CHAPTER II LITERATURE REVIEW.....	15
The Study of Crisis.....	15
A Definition of Crisis.....	23
Crisis in the Academy.....	24
The Crisis Management Team.....	35
The Process of Crisis Management.....	38
The Phases of Crisis Management.....	41
The Planning Phase.....	41
The Prevention Phase.....	43
The Response Phase.....	43
The Recovery Phase.....	44
The Learning Phase.....	44
Texas A&M University at Galveston’s Crisis Management Plan.....	47
Texas A&M University’s Risk Management Process.....	48
Performance Management Systems.....	49

The Baldrige Criteria.....	50
The Texas Quality Foundation.....	52
Summary of Literature Review.....	53
CHAPTER III METHODOLOGY.....	55
Introduction.....	55
Restatement of the Purpose.....	55
Research Questions.....	55
Selection of Methodology.....	56
The Case Study Research Design.....	62
Theoretical Framework.....	64
Institutional Characteristics and Participant Selection.....	67
Data collection and recording.....	71
Instrumentation.....	71
Interview Protocol and Data Collection.....	72
Researcher Reflexive Journal.....	73
Data Analysis.....	74
Unitizing data.....	75
Evaluation of the Quality of the Study.....	76
Trustworthiness.....	76
Summary of the Methodology.....	78
CHAPTER IV THE CASE STUDY.....	79
The Context of the Study.....	79
The Origins of a Plan.....	79
The Evolution of a Plan.....	85
The Storm Approaches.....	89
Hurricane Ike Strikes Galveston.....	95
The Crisis Response Initial Meeting.....	97
The Next Eight Days.....	107
The Students Arrive.....	120
The Semester Starts Again.....	125
Back in Galveston.....	131
The Cost of the Storm.....	139
The Return Home.....	155
Restating the Purpose of the Study.....	156
Research Questions.....	157
The Findings.....	157
Research Question 1 –Approach.....	157
Leadership.....	158
Strategic Planning.....	165
Customer/ Student Focus.....	168

Measurements, Analysis, and Knowledge Management.....	172
Workforce Focus.....	176
Process Management.....	180
Summary.....	183
Key Findings.....	185
Research Question 2 –Deployment.....	186
Leadership.....	187
Strategic Planning.....	197
Customer/ Student Focus.....	205
Measurements, Analysis, and Knowledge Management.....	216
Workforce Focus.....	221
Process Management.....	232
Business Results.....	236
Ensuring Consistency of Approach.....	251
Summary.....	259
Key Findings.....	260
Research Question 3 – Learning.....	265
Leadership.....	273
Strategic Planning.....	278
Customer/ Student Focus.....	281
Measurements, Analysis, and Knowledge Management.....	284
Workforce Focus.....	286
Process Management.....	290
Business Results.....	294
Summary.....	305
Key Findings.....	308
Research Question 4.....	309
Summary.....	317
Key Findings.....	319
 CHAPTER V SUMMARY AND CONCLUSIONS.....	 321
Introduction.....	321
Summary of Findings.....	322
Research Question 1.....	322
Research Question 2.....	325
Research Question 3.....	329
Research Question 4.....	332
Conclusions.....	334
Recommendations for Practice.....	337
Recommendations for Future Research.....	342
Closing statement.....	344
 REFERENCES.....	 345

APPENDIX A. BALDRIGE CRITERIA (TEXAS QUALITY FOUNDATION ENGAGEMENT LEVEL).....361

APPENDIX B. INTERVIEW INTRODUCTION AND PROTOCOL.....364

APPENDIX C. IKE AFTER ACTION REVIEW.....367

APPENDIX D MEMO CONCERNING POST-IKE AFTER ACTION REVIEW.....418

APPENDIX E. STORM RESPONSE MATRIX.....420

APPENDIX F. TAMUG CRISIS MANAGEMENT PLAN.....422

LIST OF FIGURES

	Page
Figure 1. Faculty Opinions of TAMUG Administrative and Student Academics Responses to Hurricane Ike.....	239
Figure 2. Student Assessment of Academic Quality of Relocation.....	240
Figure 3. The Academic Support Services were Satisfactory.....	242
Figure 4. Texas A&M University at Galveston Fall Enrollment Figures.....	247

LIST OF TABLES

	Page
Table 1. An Array of Organizational Crises.....	18
Table 2. Preparation for and Experience of Crises.....	29
Table 3. TAMUG Estimates of Total Cost of Recovery from Hurricane Ike.....	145
Table 4. Texas A&M at Galveston Summary of Costs to Date.....	151

CHAPTER I

INTRODUCTION

Texas A&M University at Galveston is a satellite campus of Texas A&M University. Located 150 miles southeast of College Station and situated on the Gulf of Mexico, its close proximity to the ocean is ideal for the 1700 students studying any of the nine undergraduate programs and two graduate programs that focus on the ocean. Classes spent in salt marshes collecting samples or on board ships learning maritime skills provide a hands on experience that greatly enhances the instruction in the classrooms. Furthermore, the high quality of faculty teaching in small classroom settings further augments the reputation of the small institution, attracting students from 49 states and nearly 20 countries (Texas A&M University at Galveston website, 2010). The Galveston campus's motto is "The Ocean is my classroom," and many of the faculty, staff, and students believe they have found the perfect place to live and explore their passion for the ocean.

At 2:10 am September 13, 2008, the eye wall of Hurricane Ike made landfall in Galveston, Texas. Ike was a huge storm with tropical storm force or greater winds extending 275 miles from the eye, creating a massive storm surge across the Gulf Coast that would range up to 20 feet high (Johnson, 2010). The wall of water pushed ahead of Hurricane Ike would cause devastation throughout the Gulf Coast region, resulting in Hurricane Ike going on record as the third most costly hurricane in the history of Federal Emergency Management Administration (FEMA, 2008). Galveston, lying in the direct

path of the storm, suffered extensive damage to the city's infrastructure and over 75% of the city of Galveston was submerged before the storm had passed (Spinner, 2010). With no electricity, gas, or sanitation, massive destruction to many of the homes and buildings, and lack of access to the island due to the mountains of debris left by the storm, the city of Galveston and much of the Gulf Coast were in the midst of a crisis that had not been seen since Hurricane Katrina had wreaked similar devastation to New Orleans. To a small campus like Texas A&M University at Galveston, the crisis and its impact on the campus almost seemed insurmountable. Roof damage was extensive to a number of campus buildings, but even those without roof damage suffered extensive water damage from sheets of rain pouring through storm shattered windows. Flood waters from the storm surge completely devastated the waterfront of the campus carrying off those boats that couldn't be moved before the storm and leaving large piles of debris in their stead. This debris was left throughout the campus as the surge completely covered the campus grounds, and although the surge water only permeated a few of the campus buildings, the two private student housing complexes located across the street, where nearly 25% of the student body called home during the school year, were rendered uninhabitable. Power lines were knocked down, and transformers were shattered leaving the campus without power. To further complicate any potential recovery, the Pelican Island causeway which provided the one road into campus had been washed completely out and was traversable only by foot traffic. The future of Texas A&M University at Galveston was in crisis.

Texas A&M University at Galveston had a crisis management team in place well before Hurricane Ike landed. A two tiered team that aligned critical staff and faculty into the executive team or strategic operations team, the crisis management plan clearly identified critical staff and their role during a crisis (Texas A&M University at Galveston website, 2010). As a small campus, the team members had worked together in non-crisis situations and were fairly close-knit, but had the additional experience of working together in crisis mode through numerous table top exercises and previous hurricane evacuations. However, all of the drills and practices could never completely replicate the thousands of management decisions that would need to be made by the crisis management team in the wake of Hurricane Ike. These decisions, which included the relocation of the student body and integrating into the mother campus for a semester, were often required to be made with partial information and no previous body of knowledge that was relevant to the situation. In many ways, they were operating in new, untested territory with high stakes decisions being made moment by moment. These decisions, although certainly difficult under the circumstances, had far reaching consequences and needs to be examined with regards to their impact, organizational learning and implications for future crisis management in higher education.

Statement of the Problem

The crisis management team of Texas A&M University at Galveston was required to make numerous difficult decisions after Hurricane Ike devastated Galveston Island. As with most natural disasters, many of the specifics of the crisis were somewhat

unique to the incident which creates difficulty in assessing the success or failure of the management decisions purely by comparisons to similar crises on other university campuses. Consequently a need exists to examine the crisis management process and crisis management team's performance in order to improve the preparedness for and management of future crisis events.

Purpose of the Study

The purpose of this study was twofold: (1) to examine the Texas A&M University at Galveston's crisis management team's approach, deployment, and learning as a consequence of Hurricane Ike in the effort to return the campus to Pre-Ike status; (2) to evaluate the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) as a framework for assessing crisis management in higher education.

Research Questions

1. What approach did Texas A&M University at Galveston utilize in their crisis management process?
2. What strategies did Texas A&M University at Galveston deploy in applying their approach consistently and ensuring the approach was utilized by all appropriate work units?
3. What learning occurred as a result of refining the approach through cycles of evaluation and improvement?

4. To what extent is the Quality Texas Foundation- Engagement Level Criteria an effective framework for assessing crisis management in higher education?

Operational Definitions

Approach – the first of four factors used to evaluate processes in the Baldrige Criteria.

Approach refers to:

- the methods used to accomplish the process
- the appropriateness of the methods to the Baldrige category item requirements and the organization’s operating environment
- the effectiveness of the use of the methods
- the degree to which the approach is repeatable and based on reliable data and information (i.e., systematic) (National Institute of Standards and Technology, 2011).

Baldrige Criteria – The Baldrige Criteria for performance excellence is a framework that any organization can use to evaluate and improve overall organizational performance. Seven categories make up the award criteria (National Institute of Standards and Technology, 2011) :

- **Leadership**—Examines how senior executives guide the organization and how the organization addresses its responsibilities to the public and practices good citizenship.
- **Strategic planning**—Examines how the organization sets strategic directions and how it determines key action plans.

- **Customer focus**—Examines how the organization determines requirements and expectations of customers and markets; builds relationships with customers; and acquires, satisfies, and retains customers.
- **Measurement, analysis, and knowledge management**—Examines the management, effective use, analysis, and improvement of data and information to support key organization processes and the organization's performance management system.
- **Workforce focus**—Examines how the organization enables its workforce to develop its full potential and how the workforce is aligned with the organization's objectives.
- **Process management**—Examines aspects of how key production/delivery and support processes are designed, managed, and improved.
- **Results**—Examines the organization's performance and improvement in its key business areas: customer satisfaction, financial and marketplace performance, human resources, supplier and partner performance, operational performance, and governance and social responsibility. The category also examines how the organization performs relative to competitors.

The Baldrige Criteria are used by thousands of organizations of all kinds for self-assessment and training and as a tool to develop and improve performance and business processes. Several million copies have been distributed since the first edition in 1988, and heavy reproduction and electronic access multiply that number many times (The Quality Texas Foundation, 2009).

For many organizations, using the Baldrige Criteria results in better employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability. According to a report by the Conference Board, a business membership organization, “A majority of large U.S. firms have used the criteria of the Malcolm Baldrige National Quality Award for self-improvement, and the evidence suggests a long-term link between use of the Baldrige Criteria and improved business performance.”

Case Study – a form of qualitative research that is characterized by intensive, holistic description and analysis of a single unit or bounded system (Merriam, 1998).

Crisis - events, often sudden or unexpected, that disrupt the normal operations of the institution or its educational mission and threaten the well-being of personnel, property, financial resources and/or the reputation of the institution, have occurred on campuses as long as there have been college campuses (Zdziarski, 2006).

Crisis Management- effective crisis management involves minimizing potential risk before a triggering event. In response to a triggering event, effective crisis management involves improvising and interacting by key stakeholders so that individual and collective sense making, shared meaning, and roles are reconstructed. Following a triggering event, effective crisis management entails individual and organizational readjustment of basic assumptions, as well as behavioral and emotional responses aimed at recovery and readjustment (Pearson & Clair, 1998).

Crisis Management Team – the team of Texas A&M University at Galveston administration, faculty, and staff who were charged with handling the preparation and

response to Hurricane Ike. The Vice President and CEO, although not an assigned member of the crisis management team, shall be considered part of the team for this research due to considerable involvement in managing the crisis.

Deployment – The second of four factors used to evaluate process in the Baldrige Criteria. Deployment refers to the extent to which:

- the approach is applied in addressing Baldrige category Item requirements relevant and important to your organization
- the approach is applied consistently
- the approach is used (executed) by all appropriate work units (National Institute of Standards and Technology, 2011)

Disaster – an unexpected event that disrupts normal operations of not only the institution but the surrounding community as well (Zdziarski, 2006).

Engagement Level- The Quality Texas Foundation recognizes that Texas institutions may seek feedback and guidance along their journey to implementing and refining a management system for performance excellence. To assist such organizations, Quality Texas has developed four Criteria Levels that are designed to assess the degree to which an organization has developed and deployed sound, balanced approaches resulting in improved performance levels and trends. The four levels are Engagement, Commitment, Progress, and Award. The first level, Engagement Level, is for those organizations that have made a commitment to use performance improvement principles, but are early in their journey. This level involves developing the Organizational Profile and responding

to the Engagement questions which are a much smaller subset of the full award level list of questions (The Quality Texas Foundation, 2009).

Integration – the fourth of four factors used to evaluate process in the Baldrige Criteria.

Integration refers to the *extent* to which:

- your approach is aligned with your organizational needs identified in the Organizational Profile and other Process Items
- your measures, information, and improvement systems are complementary across processes and work units
- your plans, processes, results, analysis, learning, and actions are harmonized across processes and work units to support organization-wide goals (National Institute of Standards and Technology, 2011).

Learning – the third of four factors used to evaluate process in the Baldrige Criteria.

Learning refers to:

- refining your approach through cycles of evaluation and improvement
- encouraging breakthrough change to your approach through innovation
- sharing refinements and innovations with other relevant work units and processes in your organization (National Institute of Standards and Technology, 2011).

The Malcolm Baldrige National Quality Award - The Malcolm Baldrige National Quality Award is given by the President of the United States to businesses— manufacturing and service, small and large—and to education, health care and nonprofit organizations that apply and are judged to be outstanding in seven areas: leadership;

strategic planning; customer and market focus; measurement, analysis, and knowledge management; workforce focus; process management; and results.

Congress established the award program in 1987 to recognize U.S. organizations for their achievements in quality and performance and to raise awareness about the importance of quality and performance excellence as a competitive edge. The award is not given for specific products or services. Three awards may be given annually in each of these categories: manufacturing, service, small business, education, health care and nonprofit (National Institute of Standards and Technology, 2011).

“While the Malcolm Baldrige National Quality Award and the Baldrige recipients are the very visible centerpiece of the U.S. quality movement, a broader national quality program has evolved around the award and its criteria. A report, *Building on Baldrige: American Quality for the 21st Century*, by the private Council on Competitiveness, said, “More than any other program, the Baldrige Quality Award is responsible for making quality a national priority and disseminating best practices across the United States.”

The U.S. Commerce Department’s National Institute of Standards and Technology (NIST) manages the Baldrige National Quality Program in close cooperation with the private sector” (National Institute of Standards and Technology, 2011).

“The award was established because in the early and mid-1980s, many industry and government leaders saw that a renewed emphasis on quality was no longer an option for American companies but a necessity for doing business in an ever expanding, and more demanding, competitive world market. But many American businesses either did

not believe quality mattered for them or did not know where to begin. The Malcolm Baldrige National Quality Award was envisioned as a standard of excellence that would help U.S. organizations achieve world-class quality.

The Baldrige Criteria have played a major role in achieving the goals established by Congress. They now are accepted widely, not only in the United States but also around the world, as the standard for performance excellence. The criteria are designed to help organizations enhance their competitiveness by focusing on two goals: delivering ever improving value to customers and improving overall organizational performance.

The award program has proven to be a remarkably successful government and private-sector team effort. The annual government investment of about \$8 million is leveraged by a contribution of over \$100 million from private-sector and state and local organizations, including \$10 million raised by private industry to help launch the program and the time and efforts of hundreds of largely private-sector volunteers.

The cooperative nature of this joint government/private-sector team is perhaps best captured by the award's Board of Examiners. Each year, more than 500 experts from industry, educational institutions, governments at all levels, and non-profit organizations volunteer many hours reviewing applications for the award, conducting site visits, and providing each applicant with an extensive feedback report citing strengths and opportunities to improve. In addition, board members have given thousands of presentations on quality management, performance improvement, and the Malcolm Baldrige National Quality Award" (National Institute of Standards and Technology, 2011).

“The Baldrige Award winners also have taken seriously their charge to be quality advocates. Their efforts to educate and inform other companies and organizations on the benefits of using the Baldrige Award framework and criteria have far exceeded expectations. To date, the recipients have given tens of thousands of presentations reaching thousands of organizations” (National Institute of Standards and Technology, 2011).

Texas A&M University at Galveston – One of two satellite campuses of Texas A&M University, Texas A&M University at Galveston (TAMUG) is a small campus of about 1900 students with a focus on marine and maritime studies.

Texas Award for Performance Excellence – Patterned after the Malcolm Baldrige National Quality Award, the Texas Award for Performance Excellence is an annual recognition of Texas organizations that excel in performance, quality, and customer satisfaction. The benefits of participation are in the self-assessment that occurs during application, and the extensive feedback report prepared for the applicant by a team of trained, certified examiners who review and analyze the application (The Quality Texas Foundation, 2011).

Assumptions

1. Administrators, faculty, and staff will understand the purpose of the study and will answer the questions honestly and to the best of their ability.
2. The researcher will be impartial in collecting and analyzing the data gathered.

3. The Malcolm Baldrige Criteria for Performance Excellence system is an effective system to assess crisis management.

Limitations

1. Findings from this study may not be generalized beyond Texas A&M University at Galveston.
2. Objectivity of the responses in the interviews may be biased by interviewees who perceive that their performance during the crisis is being assessed.
3. After two years, accurate recollection of events may have faded to some extent.
4. The Performance Management system being used to assess the management decisions are typically used during standard business practice situations, and may demonstrate some gaps in assessing management decisions made in a crisis situation (ie. necessary decisions made with lack of proper time and/or data)

Significance of the Study

As long as there are college campuses, there will be crises on those campuses. Furthermore as colleges and universities continue to grow, so does the variety and severity of the crises facing them. Universities have realized this fact and assembled crisis management teams who further develop Critical Incident Response Teams and Behavioral Intervention Teams, who attend seminars and conferences, and are ready to respond to their institution's next impending crisis. When the crisis occurs, the crisis management team addresses it the best way it can.

But was the crisis managed successfully? What determines success? What data set best demonstrates that success? Whereas it is impossible to standardize all crises to compare and contrast what is success versus failure, there are certain performance management systems that may allow crisis management teams to assess their performance under national quality standards. Many researchers have documented what actions were taken during and shortly after a crisis, but the Baldrige Criteria allow for a much more robust and systemic assessment of all aspects of the organization during crisis management.

Texas A&M University at Galveston was forced to literally shut down the campus for a semester after Hurricane Ike hit Galveston in Fall, 2008. Within two weeks after the hurricane hit, 92% of the student body was re-enrolled on the main campus of Texas A&M University in College Station (referred to as TAMU- College Station hereafter), Texas with no additional cost to the student and no loss of academic credit. The students were able to return to Galveston the next semester and now two years later, the students are still on track academically and enrollment at the campus is at record levels, as if the storm never hit. This study will examine the management decisions made during that time of crisis in order to identify lessons learned and further the understanding of crisis management in higher education.

CHAPTER II

LITERATURE REVIEW

The Study of Crisis

Crisis is not a new phenomenon. In fact one could easily argue that as long as mankind has been on earth, there has been crisis. And just as mankind has evolved to live in the complex and diverse societies of today, the variety, breadth and depth of crisis has expanded at a dramatic rate as well. Consider the following examples:

- On September 11, 2001, 19 militants associated with the Islamic extremist group al-Qaeda hijacked four airliners and carried out suicide attacks against targets in the United States. With planes being crashed into the World Trade Center, the Pentagon, and a field in Pennsylvania, the attacks resulted in over 3,000 people being killed, including more than 400 police officers and firefighters. In addition, the world's financial industry, much of it headquartered at the World Trade Center, was thrown into chaos. (History.com)

- British Petroleum's oil rig, the Deepwater Horizon, was drilling for oil in depths of over a mile when a gas bubble caused the rig to explode, killing eleven men on board. Although the technology for drilling in deep water was rapidly developing, the technology for handling deep water crises had not kept up. Before the well would be capped nearly three months later, 4.9 million gallons of

crude oil would gush into the Gulf of Mexico creating a state of emergency that covered nearly 500 miles of coast line and the entire Gulf of Mexico (Bourne, 2010).

- NASA's shuttle program began in the 1970's to develop reusable craft to transport cargo into space. The Challenger was the second ship in a fleet of four that represented the pinnacle of American ingenuity and determination. On January 28, 1986, the Challenger lifted off to take a teacher into space along with assorted cargo and experiments, only to explode seventy three seconds into the mission, killing all seven crew members and sending the United States Space program into turmoil (space.about.com)
- The Enron Corporation was an American energy, commodities and service company that employed over 20,000 employees and claimed revenues of over \$101 billion. After being named America's Most Innovative company for six consecutive years, wide spread fraud was discovered causing the company and many others associated with it to spin into bankruptcy and dissolution. (Thomas, 2002)
- Greece has slowly accumulated debt to the point where their debt far exceeds their annual Gross Domestic Product. In response to the threat of default, the international banks and lenders have increased the interest rates to unsustainable

levels and refused to loan further until Greece reigns in their debt and entitlements. The Greek political system is in a logjam with citizens protesting the proposed cuts and the threat of Greece defaulting affecting financial systems around the world.

- On December 26, 2004, a magnitude nine earthquake struck off the coast of Indonesia creating a tsunami that struck thirteen countries. Over 226,000 people were killed with another 500,000 injured. Estimated cost of aid and reconstruction is over \$7.5 billion. (Pickrell, 2005)

From terrorism, environmental, scientific, financial, political to natural disasters, crisis can occur in any arena, and if not managed effectively, the devastation and ramifications can extend beyond borders and even generations. Although these are major examples of disasters that created an impact at least at the national, and often at the world, level, crisis most often strikes at the organizational level and can strike from a surprising variety of directions. Pearson and Clair (1998) composed a well cited array of organizational crises in Table 1.

Yet even with the alarming and often devastating history of wide-ranging crises that have impacted mankind throughout time, the study of crisis and, perhaps more importantly, the study of crisis management is a fairly new discipline. The study of crisis management in general is a relatively young field that really only began to be

discussed in the 1970's (Coombs, 2012; Pauchant & Mitroff, 1992). Many researchers attribute the 1982 poisonings of Tylenol capsules with cyanide in a suburb outside of

Table 1. An Array of Organizational Crises

• Extortion	• Bribery
• Hostile takeover	• Information sabotage
• Product tampering	• Workplace bombing
• Vehicular fatality	• Terrorist attack
• Copyright infringement	• Plant explosion
• Environmental spill	• Sexual harassment
• Computer tampering	• Escape of hazardous materials
• Executive kidnapping	• Personnel assault
• Product/services boycott	• Assault of customers
• Work-related homicide	• Product recall
• Malicious rumor	• Counterfeiting
• Natural disaster that disrupts a major product or service	• Natural disaster that destroys corporate headquarters
• Natural disaster that destroys organizational information base	• Natural disaster that eliminates key stakeholders

Chicago as the event that significantly kick started the field and initiated the beginnings of the modern field of study (Mitroff, Diamond, & Alpaslan, 2006). Although most of the crisis management literature originated from the business sector, particularly from the fields of management, organizational behavior, and public relations, crisis management has become prominent in other fields as well including communications, public administration, education, political science, and psychology (Harper, Paterson, & Zdziarski, 2006). Understandably, as with many new areas of research, these studies lack adequate integration with one another, but even further, the very cross-disciplinary nature of crisis management itself has specifically contributed to this lack of integration

(Shrivastava, 1993). This is problematic for a number of reasons. For one, there is no common or agreed upon theoretical construct for crisis management (Zdziarski, Dunkel, Rollo, & Assoc., 2007; Pearson & Clair, 1998; Auerbach & Kilmann, 1977; Hermann, 1972). In fact, although all of the various disciplines agree upon the general concept of crisis management, there is not even a standard or widely accepted definition of crisis (Zdziarski, E., Dunkel, N., Rollo, M., & Assoc. 2007; Coombs, 2012; Hermann, 1972; Levitt, 1997). Instead each discipline has promulgated the field through its own distinct lens or perspective which has led to a “fragmentation” of the broad field of crisis management literature (Coombs, 2012). Further complicating the field, some scholars incorporate a multidisciplinary approach (Pearson & Clair, 1998; Shrivastava, Mitroff, Miller, and Miglani, 1988; Staw, Sandelands, & Dutton, 1981) whereas many others analyze the causes, consequences, and management of organizational crisis from a single disciplinary frame (Shrivastava, 1993). In many ways, this evolution has created a “Tower of Babel” effect with “many different disciplinary voices, talking in different languages to different issues and audiences” (Shrivastava, 1993: 33) about the same important topic: organizational crisis (Pearson & Clair, 1998).

However in reviewing the literature, there are certain recurring themes that are common throughout the disciplines. For one, crises are perceptual. Although few would dispute that a hurricane or industrial accident can be considered a crisis event, it is truly up to the stakeholders’ perception of the event to help define any event as a crisis (Coombs, 2012). This is particularly true when crises violate expectations that stakeholders hold about how organizations should act. Planes should land safely,

products should not harm us, management should not steal money, and organizations should reflect societal values (Coombs, 2012). As a result, crises are most often characterized as highly ambiguous situations where causes and effects are unknown that could potentially negatively impact the stakeholders of an organization (Abent, 1999; Albrecht, 1996; Fink, 1986; Hermann, 1972; Holsti, 1978; Kovoov-Misra, 1995; Lerbinger, 1997; Pauchant & Mitroff, 1992; Phelps, 1986; Quarantelli, 1988). Depending on the nature and extent of the crisis, these threats can target an organization's mission and goals (Hermann, 1972; Holsti, 1978; Kovoov-Misra, 1995); its financial stability (Levitt, 1997); its reputation (Abent, 1999; Barton, 2001; Lerbinger, 1997); or in the most significant crisis situation, the entire organization existence can be at risk (Albrecht, 1996; Pauchant & Mitroff, 1992; Shrivastava, Mitroff, Miller, & Miglani, 1988). Of course organizations are not the only things at risk from crises. Crises threaten people and property as well and may include death or injury, damage to facilities or harm to the environment (Harper, Paterson, & Zdziarski, 2006).

Another prevalent theme relates to the suddenness of crises which often occur without warning (Barton, 1993; Coombs, 2012; Hermann, 1972, Holsti, 1978; Phelps, 1986). A crisis incident is unpredictable, but not always unexpected. Well-managed organizations know that crisis will eventually strike their organization; they just do not know when. Crises can be anticipated, but most crises strike suddenly, giving them an element of surprise or unpredictability (Barton, 2001; Coombs, 2012; National Research Council, 1996, Zdziarski, E., Dunkel, N., Rollo, M., & Assoc. 2007). Others can give a

great deal of warning (Coombs, 2012; Irvine & Millar, 1996). The most obvious examples of this are hurricanes which are often known days before they strike.

A third element commonly associated with crisis is the growing complexity of modern crisis. As organizations have evolved and their systems have become more entwined, crises have become much more expansive and difficult to manage (Boin, 2004; Coombs, 2012; Kouzman & Haynes, 1999; Mitroff, 2001, Rosenthal, 1998). The modern crisis requires collective capabilities far beyond the technical realm (Rosenthal, 1998). Arjen Boin and Patrick Lagadec (2000) describe this growing complexity as “the result of many converging factors: specific risks that are increasingly difficult to evaluate, large systems consisting of entangled networks with a hitherto unknown complexity, the immediate ‘mediatisation’ of incidents, abrupt changes in collective perceptions and social demands suddenly condemning what was hitherto tolerated. Every local dysfunctionality, even if apparently harmless, has the potential, often unsuspected, to develop into a trans-boundary crisis” (p.186). This changing nature of crisis appears to be a logical development considering such long-term trends as globalization, increased mass communication (“inter-wiredness”), social fragmentation, and the coupling of ever-larger, more complex systems continue to increase.

Another element closely associated to the last two themes of surprise and complexity is the urgency of response (Birch, 1994; Zdziarski, E., Dunkel, N., Rollo, M., & Assoc. 2007). Managers and administrators must be prepared to respond before a crisis evolves and expands. Massive advances in communications technology and the 24 hour news cycle have resulted in an environment with an extremely limited response

time. When thousands died at Bhopal, India in the worst industrial accident in history, there was no CNN to break the news worldwide in minutes, or even a fax line between Union Carbide's headquarters in Danbury, Connecticut and Bhopal (Birch, 1994). Now stakeholders expect to be notified within moments of crisis, and failure to do so potentially invites further crises. Indeed, every crisis is capable of being the cause and effect of other crises within the organization (Mitroff, 2001)

Another common theme that is prevalent in the literature relates to the disruptive nature of crisis events which have the potential to significantly interfere with the normal operations of an organization (Harper, Paterson, & Zdziarski, 2006; Pauchant & Mitroff, 1992; Seymour & Moore, 2000). Seymour and Moore (2000) focus on the disruptive nature of crisis as "the disruption of normal patterns of corporate activity by a sudden or overpowering and initially uncontrollable event" (p.10). Other researchers have proposed to differentiate levels of crisis based on the level of disruption so as to clarify terminology and conceptual distinctions. By acknowledging that scale of any collective crisis has to be taken into account in any analysis, researchers are able to differentiate between the largest community disasters, referred to as catastrophes, which are a qualitative jump over disasters, which are just as distinct from everyday emergencies (Quarantelli, 2006). Obviously as the scale of destruction increases, the potential for more and less familiar agencies to become involved with the organization, resulting in potentially more public private interface and greater loss of autonomy and freedom of action, which all further compound the disruption of normal activities (Quarantelli, 2006).

Yet another common theme is the belief that crises present a dilemma in need of a decision or judgment that will result in change for better or worse (Aguilera, 1990; Pearson & Clair, 1998; Slaikeu, 1990). Although crises are generally perceived negatively, many companies have taken advantage of crisis to improve their organization's standing. The Chinese have longed believed in the positive potential of crisis. In fact, the symbol of their word "crisis" – called wei-ji – is actually a combination of two words, "danger" and "opportunity" (Fink, 1986).

A Definition of Crisis

Webster's Dictionary defines crisis as "a stage in a sequence of events at which the trend of all future events, especially for better or for worse, is determined; turning point.; a condition of instability or danger, as in social, economic, political, or international affairs, leading to a decisive change (p.307). Through the various disciplines, a number of other definitions of crisis have evolved. The three most frequently cited include:

- A crisis is "an unstable time or state of affairs in which a decisive change is impending- either one with the distinct possibility of a highly undesirable outcome or one with a distinct possibility of a highly desirable and extremely positive outcome (Fink, 1986, p.15).
- A crisis is "a disruption that physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, its existential core" (Pauchant & Mitroff, 1992, p.12).

- A crisis is “a major unpredictable event that has potentially negative results. The event and its aftermath may significantly damage an organization and its employees, products, services financial condition and reputation.” (Barton, 1993, p.2).

These definitions were put forth by some of the earliest and most prolific writers in the field of crisis management. More recently, two other definitions that reference the current themes of research are also receiving a lot of attention. In a seminal work by Christine Pearson and Judith Clair (1998), they consolidated the current elements of crisis research and established “an organizational crisis is a low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly” (p.60). Several years later, Gene Zdziarski (2006) refined the definition further in applying it to the field of higher education. He defined crisis as “an event, which is often sudden or unexpected, that disrupts the normal operations of the institution or its educational mission and threatens the well-being of personnel, property, financial resources, and/or reputation of the institution” (p.5). This is the definition that will be utilized for the purpose of this paper.

Crisis in the Academy

Crises are not new to colleges and universities. Dating back to the 1906 San Francisco earthquake, Stanford University has struggled through a number of earthquakes, floods and other calamities (Loftus, 1999). Early on, many of these crises resulted from natural disasters that impacted the surrounding community, but as

campuses have grown and diversified to become their own little cities, so have the types of crises to include a wide array of incidents and tragedies. Consider the following examples:

- Seung-Hui Cho, a student who had been diagnosed as mentally ill, stalks the campus of Virginia Tech killing 32 people and wounding another 25. Often called Higher Education's 9/11, his four hour rampage on April 16, 2007 is still the deadliest shooting incident in U.S. history involving a single gunman (Rinehart, 2007).
- Hurricane Katrina was one of the greatest natural disasters to ever strike the United States. Although the eye of the storm narrowly missed the city of New Orleans, the failure of three levees resulted in 80% of the city being flooded. Tulane University's president must cancel the Fall semester for the university's 12,000 students, but reopening in the Spring is critical for the university's continued existence. It seems an impossible task to reopen a university in an area that is so completely devastated that operations must be headquartered in Houston nearly 350 miles away (Selingo, 2005; Krane, Kahn, Et al, 2007).
- A student is found badly beaten and tied to a fence in sub-freezing temperatures. Further investigation reveals that the young man is a student at the University of Wyoming who was targeted because he was gay. The student, Matthew Shepard, soon dies of his injuries, leaving a grief stricken campus struggling to deal with a hate crime in their very midst (Hurst, 1999).

- Texas A&M University's student Bonfire is no small trash heap. A mammoth project where students spend weekends throughout the Fall cutting down full grown trees with axes to stack together for the annual burning, the bonfire has reached as high as 109 feet. Scaled back to 55 feet and built in wedding cake-like tiers, the student spirit activity became deadly when the structure collapsed early one morning in November 1999, killing twelve and injuring another 27, some very seriously (Harper, Paterson, & Zdziarski, 2006).
- A young University of Colorado coed reports being raped by a football player during a party in her apartment. Within a short amount of time, several other women came forward to report other sexual assaults by football players. Soon rumors of hired strippers and booze laden parties for the football team and potential recruits begin to surface, depicting a football program completely out of control (Johnson, Sink, & Pennington, 2004). The toll on the university is significant. Not only is the president forced to resign, but admissions are down in the immediately following years for out of state students (19%) and Colorado students (4%) (Mitroff, Diamond, & Alpaslan, 2006)

These are just a select few of the varied examples of major crises occurring at our institutions of higher education. Beyond these, Ian Mitroff, Michael Diamond, and Murat Alpaslan (2006) further describe "the widespread and perennial crises such as grade tampering; the alteration of key files and student records; computer hacking; major fires and explosions; student unrest; civil disturbances; confrontations, sometimes violent, between students of different political, religious, and ideological viewpoints;

ethical breeches by top administrators, faculty, and students; the fraudulent use of tutors by student athletes; the stealing of body parts from university medical schools and so on” (p.1). Furthermore, when crimes and other crises occur on the college campus, the world treats them differently from the way it treats such events when they occur off campus- whether or not they involve students. Campus crises are looked at, rightly or wrongly, as the institution’s problem (Siegel, 1991).

Yet despite the long and very diverse history of crises affecting colleges and universities, the study of crisis and crisis management in higher education is still a relatively new phenomenon, and they are only now becoming prepared (Dolan, 2006). Hartzog (1981) was one of the first to research crisis preparedness at institutions of higher education. His study analyzed four year public institutions with an enrollment of at least 5,000 students to assess their activity in planning for crises. The study looked at four planning elements: 1) objectives, 2) strategies, policies, and plans, 3) organization, and 4) review and evaluation. The study found that mid-size to very large institutions were actively engaged in emergency management planning whereas smaller institutions with fewer resources were not.

Over a decade later, Wilson (1992) analyzed the crisis management processes at three institutions of higher education. Wilson hoped to determine: 1) whether a crisis management plan had been developed, 2) how the existence, or lack thereof, of a crisis management plan affected the decision-making before, during and after a crisis, 3) the nature of the crisis management plans, and 4) whether these institutions were more likely to develop a new or redesign their current plan after actually experiencing a crisis. Not

surprising, the study found that the pre-existing crisis management plans were fairly inadequate in meeting the needs of the institution once they were actually in crisis.

It was not until Zdziarski's (2001) study nearly another decade later that another truly comprehensive study was conducted concerning crisis management in higher education. Zdziarski surveyed student affairs administrators who were members of the National Association of Student Personnel Administrators (NASPA) and worked at institutions with at least an 8,000 student enrollment concerning the four critical factors put forth in an earlier study concerning crisis management in the private sector. The four factors associated with organizational crisis preparedness were types, phases, systems, and stakeholders (Mitroff, et al., 1996). The study found that many of the 146 colleges and universities that participated considered themselves to be prepared for a campus crisis. The nature of the study prevented the researcher from determining whether the institutions were actually prepared versus feeling prepared (Zdziarski, 2001).

This notion was further reinforced when in the fall of 2004, Ian Mitroff, Michael Diamond, and Murat Alpaslan (2006) distributed a survey to the provosts of 350 major U.S. colleges and universities that identified fourteen types of crises that had previously been determined to most likely affect institutions of higher education. They received a 33% response rate of 117 institutions with a fairly broad range of responding institutions (36% urban, 39% suburban and 24% rural; 41% private and 59% public). The average number of undergraduate students was 9,700, of professional or master's students 3000, and of doctoral students 1200. In addition the average budget was nearly half a billion

dollars. The provosts were asked to indicate how prepared their institution was for any of fourteen ‘most likely’ crises. In addition, they were also asked which of the fourteen potential crises their institution had actually experienced. The results for these two questions are listed and compared in Table 2 and demonstrate that the surveyed colleges and universities were quite often only prepared for those crises that they had already experienced and were often under prepared for other crises that they frequently experienced.

Table 2. Preparation for and Experience of Crises

	Preparation	Experienced	Diff=Exp-Prep
Fires	1 (highest)	1	0
Lawsuits	2	2	0
Crimes	3	3	0
Environmental Disasters	4	12	+8
Athletic Scandals	5	11	+6
Natural Disasters	6	7	+1
Outbreaks	7	5	-2
Revenue Shortfalls	8	4	-4
Reputation	9	6	-3
Ethical Problems	10	9	-1
Data Loss	11	8	-3
Data Tampering	12	14	+2
Sabotage	13	9	-4
Terrorism	14 (lowest)	13	-1

The survey demonstrated that the crises that were experienced the most –fires, lawsuits, and crimes- were also the crises for which they were best prepared. This pattern changes significantly with environmental disasters and athletic scandals which were the fourth and fifth most prepared even though they were among the least experienced. Mitroff,

Diamond, and Alpaslan indicated that this information could be interpreted in several ways:

“We could conclude that the surveyed institutions over prepared for, say, environmental disasters (such as the release of toxic chemicals). But given the importance of these crises and their potential impact on campuses and surrounding communities, it could very well be that preparation for them substantially lowered their frequency of occurrence. A third explanation is that the state and federal laws mandate most colleges and universities to prepare for environmental disasters and that the regulations are working, in that the number of such disasters is relatively low in the surveyed institutions. Similarly, the experience of athletic scandals was comparably low, a somewhat surprising finding given the prominence of several recent cases in the national news. Nonetheless, preparation for these scandals has been high, possibly in light of the media coverage. At the same time, there are several important types of crises that were frequently experienced but not prepared for. These tended to be softer areas such as reputation and ethics, as well as non-physical crises such as data loss and sabotage. They represent areas in which the survey colleges and universities have gaps in their crisis-management plans. What emerges clearly from these data is that few of the surveyed institutions have broad based crisis management plans” (p.5).

Obviously it impossible to prepare for every conceivable eventuality, but pro-active organizations typically attempt to be prepared for at least one set of risks in each of the fourteen major categories (Mitroff, Diamond, & Alpaslan, 2006).

The terrorist attacks of 9/11 had brought heightened attention to crisis management in higher education, leading colleges and universities to develop disaster plans and even hire emergency coordinator positions (Lipka, 2005). However as pointed out in the Mitroff et al. study in 2006, many of the plans and strategies were responsive in nature, identifying specific steps to respond to limited and specific crises and unable in their specificity to handle the complexity of institutional operations. For instance, the University of Southern California was described as “operating twenty different businesses, including food preparation and services, hotel services, retail outlets, health-

care facilities, sports events, and many other activities besides teaching and scholarship (each of which has its own sub-“businesses” such as distance education with each of these activities presenting the university with different risks” (Mitroff, Diamond, & Alpaslan, 2006). Edward Foote, president of the University of Miami during the Hurricane Andrew crisis suggests that quite often further complicating the crises response for academic administrators is the complexity involved in the shared leadership across the various constituencies across the institution (Foote, 1996). Simply put, most colleges and universities were unprepared to effectively and efficiently manage disasters or complex crises that threatened them (Dolan, 2006; Cavanaugh, 2006; Marsh, Carlson, & Irons, 2010).

However within the next few years, two major crises, Hurricane Katrina in 2005 and the Virginia Tech massacre in 2007, would finally move college administrators to put aside their old disaster plans and work to develop crisis management plans (Mann, 2007). Sara Lipka (2005) writes “Hurricane Katrina was an unprecedented disaster for higher education. It forced full institutional closures longer than any on record, and it ravaged a whole region of colleges and universities....Katrina taught colleges new lessons: to plan for the possibility of extended shutdowns and to look beyond their neighbors for assistance” (p.A28). College and University administrators across the nation followed the impact of Katrina as many campuses worked to accommodate displaced students from the devastated Gulf Coast schools. With the ever present media providing real-time reporting, Katrina became a real time lesson on potential challenges facing schools in a disaster. Evolving institutional challenges such as the time frame for

bringing campus facilities back on line, the successful recruitment of next year's classes, the evaluation of the financial impact of the losses, the assessment of the strength of insurance coverage, and the ability to restore the campus infrastructure including sanitation, clean water, and the power supply were played in the media across the world (Mann, 2007). In response to the media exposure, Michael F. Middaugh, president of the Society for College and University Planning and assistant vice president for institutional research and planning at the University of Delaware states, "I would be amazed if there was an institution in this country that's not going back and reviewing its disaster policy" (Lipka, 2005). At the same time, researchers began to pay more attention to the field as well. Johnson (2007) conducted a comparative analysis of the disaster recovery efforts of two institutions that had endured catastrophes – Hurricane Ivan striking the University of West Florida and Hurricane Katrina's devastating effect on Tulane University. She identified six strategies that contributed to a successful recovery as well as four actions. The strategies include 1) prepare for disaster in advance, 2) quick and decisive leadership, 3) work to maintain your employee base, 4) use multiple channels of communication, 5) empower your key people, and 6) think creatively about academics. The study's recommended actions included 1) establish an alternative campus site, 2) reach out to partners and vendors, 3) gain rapid access to data and information, and 4) implement immediate remediation (Johnson, 2007). Many of these strategies had been common in the private sector but now were being applied directly to higher education (Barton, 2001; Cavanaugh, 2006; Coombs, 2012).

The more recent crisis at Virginia Tech further encouraged senior campus officials to engage in an ongoing evaluation of institutional assessment and preparedness and consider a more comprehensive and collaborative approach to emergency planning (Mann, 2007). Several new strategies came out of the Virginia Tech tragedy that could be applied to any crisis. These items included the development and even requirement of institutional communications systems that could provide immediate and effective notification to community members, behavioral intervention teams, the evaluation and development of a university's ability to shut down a campus, and lastly the institutional and public policy environment for effectively managing students with serious mental health concerns; specifically with regards to what information can be shared and the associated risk assessment perspective for the student and community (Mann, 2007). However most importantly, the tragedy reinforced the message that had come out of Katrina and was stated in the Report to the President of Virginia Tech regarding their recommendation for a crisis management system – “any system needs to be dynamic in nature to adjust to the changes that continually emerge from the needs of the university community and the new lessons learned from on-going evaluation of the system and the best practices of our peers” (Rinehart, 2007). Catullo (2008) had investigated whether the crisis preparedness had changed since the 9/11 tragedy but prior to the Virginia Tech massacre. Chief student affairs officers at doctoral degree granting institutions with over 5,000 students and residence halls were surveyed relative to their campus' preparedness. Once again as Zdziarski (2001) had found, the senior student affairs officers perceived themselves prepared to handle various types of crises. The findings were significant in

that it demonstrated that university officials were looking at crises from a broader standpoint and were especially focusing on issues originating from the residence halls (Catullo, 2008).

Within the past few years, research into the crisis management processes of higher education has grown with many of the more recent research filling in some of the broad gaps left between the scarce previous research findings. For example, Jenkins (2008) explored factors affecting crisis preparedness among Texas community colleges with a residential population and found that most had not developed adequate crisis response plans. Chun (2008) analyzed seven four year residential institutions in Northern California and found that considerable progress was being made in sharing best practices in collaborating with outside agencies. Burrell (2009) duplicated Zdziarski's 2001 survey with a focus on small Christian affiliated institutions of higher education versus the larger public schools of the original study. Seventy seven presidents returned the questionnaire with the majority reporting that they perceived their university to be well prepared for crises. Jones (2010) focused on the leadership aspect of crisis management in his study of the Hurricane Katrina response by various leaders in the community. Although not directly utilizing college/university leaders, the study identified key attributes that are critical in crisis leadership. Just as crises are not limited to one industry, neither are the lessons that can be learned isolated to a single industry. Higher education as an industry has begun to look to best practices and other industries to re-shape their crisis management systems to better plan for and manage crises.

The Crisis Management Team

The first step in the process of successful crisis management is the selection of a crisis management team (Barton, 2006; Coombs, 2012; Gonzalez-Herrero & Pratt, 1995; Kooor-Misra, 1995; Mitroff, Pearson, & Harrington, 1996; Pauchant, & Mitroff, 1992; Sherwood & McKelfresh, 2007). The use of crisis management teams is generally considered best practice in crisis management literature (Mitroff, Pearson, & Harrington, 1996). As Spillan (2003) states “There are very convincing arguments supporting the formation of crisis management teams which can take charge of planning for a crisis before it occurs, as well as managing the problems that emerge during a crisis” (p.162). The effectiveness of the crisis team is critical to minimizing the impact of the crisis on the organization (Reader & Seacroft, 1999). Andy Podolak (2002) states “every crisis management program starts with a competent crisis management team (p.1). A crisis management team is typically charged with three primary duties: 1. developing and maintaining a crisis management plan; 2. implementing the plan; and 3. dealing with any contingencies that are not addressed by the plan (Coombs, 2012; Harper, Paterson, & Zdziarski, 2006). Furthermore, crisis teams are operational in nature so determining who should be placed on the team is of great importance (Reader & Seacroft, 1999). The specific makeup of a crisis management team will primarily depend upon the culture and dynamics of an organization (Harper, Paterson, & Zdziarski, 2006). In most organizations, membership on the crisis management team is determined by position and area of responsibility/functional area (Coombs, 2012). Some organizations advocate using a stakeholder analysis to determine which internal stakeholders have the necessary

authority over the critical areas of the institution. (Harper, Paterson, & Zdziarski, 2006). In Zdziarski's 2001 study, it was determined that stakeholders with the greatest level of involvement in their crisis management process were university police, university relations/public information office, vice president for student affairs, residence life, student counseling services, dean of students, student health services, physical plant, and environmental health and safety (Zdziarski, 2001).

Functional areas are not the only factors that should be considered (Barton, 2006; Coombs, 2012; Zdziarski, Dunkel, Rollo, & Associates, 2007). Crisis team members should also have a general set of crisis management skills (Shrivastava & Mitroff, 1987). In the recent book, *Campus Crisis Management*, the authors, Zdziarski, Dunkel, Rollo, and Associates, describe several criteria that should be considered in determining membership on the crisis management team:

- Institutional criteria –The size and setting of an institution can play a huge role. Simply smaller institutions may need to go outside their organization to secure expertise such as mental health professionals. Also location can play a huge role as there are typically more security issues at urban institutions which could necessitate security personnel playing a larger role on the team.
- Availability – Team members must not only be available to work on the crisis management plan but also must be available during times of crisis. Quite often back ups are identified as part of the contingency planning.

- Knowledge of resources – Team members must be aware of campus and community resources as well as the organizational structures necessary to access those resources.
- Team Player mindset – Team cohesion will always improve member performance under stress and individual ego must be set aside to develop creative solutions.
- Trainability – Team members may often need to work in areas outside their normal realm of expertise, so a commitment to train and review new protocols can be very advantageous.
- Diversity communication skills – Different perspectives are valued. The goal is to create an opportunity to explore a variety of solutions in a timely manner.
- Assessment skills – Team members must be able to assess the crisis and develop a strategic response. Also as the crisis recovery winds down, the ability to assess and learn from the crisis is critical.
- Motivation to serve – Dealing with crisis can result in extremely long hours in very stressful situations. It is important to have crisis team members who are dedicated to the institution.
- Personality Type – Stable extroverted individuals are better suited to crisis response work. Good listening and processing skills and the confidence level to make decisions expeditiously are important.

- Territorial issues – Institutions that are large complex organizations can have territorial issues come into play. It is important that there is clear designation of who is in charge. (Zdziarski, Dunkel, Rollo, & Associates, 2007)

Once the team has been identified and assembled, they can begin working on the institution's crisis management plan.

The Process of Crisis Management

As long as there have been crises, there have been plans to manage them. Sometimes they were simple strategies to help mitigate crisis. General Tam Dalyell, commander in chief of the royal forces in seventeenth-century Scotland, wore square toe riding boots that could be worn on either foot so that the boots could be pulled on in a sudden crisis without losing precious time (Fink, 1986). More often, they were reactionary instructions on how to respond if certain things occurred, a certain set of actions (Harper, Paterson, & Zdziarski, 2006). Chuck Novak, manager of corporate communications for United Airlines and key member of their crisis management team, described how in the early days when the airlines were still trying to convince people of the safety of their airplanes, the first job of the guy in the field was to rush to the crash scene with a bucket of white paint and obliterate the name of the airline before the photographers showed up. He stated that was one of the first things written down in their emergency management plan (Fink, 1986).

Today, crisis management is a systemic, multi-phase continuous process (Abent, 1999; Augustine, 2000; Barton, 2006; Coombs, 2012; Dorn, 2001; Federal Emergency

Management Administration, 2003; Gonzalez-Herrero & Pratt, 1995; Guth, 1995; Kooor-Misra, 1995; Mitroff, Diamond, & Alpaslan, 2006; Smith & Elliot, 2006; Zdziarski, Dunkel, Rollo, & Assoc., 2007). Pearson & Clair (1998) state “effective crisis management involves minimizing potential risk before a triggering event, effective crisis management involves improvising and interacting by key stakeholders so that individual and collective sense making, shared meaning, and roles are reconstructed. Following a triggering event, effective crisis management entails individual and organizational readjustment of basic assumptions, as well as behavioral and emotional responses aimed at recovery and readjustment” (p. 66). Several crisis management processes have been developed to achieve this objective. The most basic crisis management system is a three phase process that is broken into pre-crisis, crisis, and post crisis stages (Birch, 1994; Coombs, 2012; Guth, 1995; Kooor-Misra, 1995) or pre-disaster, impact/rescue, and recovery (Barton, 2006). The three phase models often have sub-phases, but for the most part, break the crisis management process into the actions taken before the crisis, during the crisis, and after the crisis. These crisis management models were the earliest crisis management processes and are still prevalent in management literature today. This evolution away from the emergency response plans was important as it emphasized thoughtful, planned, & deliberate actions before, during and after a crisis event (Zdziarski, Dunkel, Rollo, & Assoc., 2007).

Some crisis management teams prefer to be more deliberate with their processes and identify additional critical steps. Most often this takes the form of breaking the pre-crisis stage into multiple distinct stages focused on planning, prevention or avoidance

(Gonzalez-Herrero & Pratt, 1995), breaking the actual crisis stage into important components (Augustine, 2000; Fink, 1986) or creating a fourth stage after the first three with an emphasis on mitigation of future crises or learning. (Federal Emergency Management Administration, 2003; Zdziarski, E., Dunkel, N., Rollo, M., & Assoc.; 2007). This perspective on a fourth stage focused on mitigation became much more prevalent with the 1996 release of the *State and Local Guide for all-hazard Emergency Operations Planning* by the Federal Emergency Management Administration (FEMA). This document provided guidelines for dealing with emergencies and crisis situations by the local, state, and federal emergency management professionals and standardized the language to some extent among the practitioners in the field. In 2003, an additional document, *Building a Disaster Resistant University*, was also released applying many of the same principles and philosophies to crisis prevention at the university. The four phases that were recommended included Preparedness, Response, Recovery, and Mitigation and are based on the continuous improvement process of the Deming cycle. Preparedness includes plans and preparations to save lives and property and to facilitate response operations; response is the actual crisis response and includes actions to provide emergency assistance, save lives, minimize property damage and speed recovery after a disaster; recovery includes those actions taken to return to a normal or improved operating condition; and mitigation refers to activities that eliminate or reduce the chance of occurrence or the effects of disasters (FEMA, 2003). FEMA further states “this guide takes a multi-hazard approach, recognizing that institutions face a wide variety of potential man-made and natural disasters. Not every disaster can be avoided,

but steps can be taken to reduce the consequences of many extreme events; however these threats can only be identified and mitigated through systematic, comprehensive, pre-disaster planning that leads to the creation, adoption, and implementation of a hazard mitigation plan (p.3) (FEMA, 2003). Through the wide dissemination of the FEMA documents, the four phase plan is the most widely used model of government agencies.

A third crisis management system proposed specifically for use in higher education utilizes five continuous phases – planning, prevention, response, recovery, and learning (Zdziarski, Dunkel, Rollo, & Assoc., 2007). The primary difference between this model and the four stage process is the added emphasis on pre-crisis activity. Instead of simply defaulting to preparedness, colleges and universities are encouraged to actively identify and plan for campus crises with an extra focus on preventing or avoiding crises as much as possible. The learning phase includes updating existing plans and debriefing crisis responders, a critical piece of the crisis response process (Zdziarski, Dunkel, Rollo, & Assoc., 2007).

The Phases of Crisis Management

The Planning Phase

The initial step in developing the crisis management plan once the crisis management team is selected is the assessment or crisis audit (Zdziarski, Dunkel, Rollo, & Assoc., 2007). This process entails scanning the internal and external environments for potential threats and deciding which have the highest likelihood of occurrence (Burrell, 2009). Once these threats are identified, strategies are drawn up to avoid,

prevent, or mitigate their occurrence including the availability of essential resources – human, physical and fiscal. The plans must be sufficiently detailed to provide guidance and direction during a crisis situation which often does not allow much time, but also be generalized enough to allow for easy adaptation to any of the many nuances that may occur within a crisis (Barton, 2001). Furthermore the review of all current plans and protocols must be reviewed to ensure there is no conflict, particularly at a different organizational level. With the allocation of resources, the identification of affected stakeholders and development of the physical plan often take place in this stage. Zdziarski, Dunkel, Rollo, & Assoc.(2007) identified several critical components of a crisis management plan:

- Purpose – defines the crisis that has been planned for and identifies the resources
- Plan activation – how will the crisis management plan be activated
- Lines of authority – provide appropriate direction to all as to who is in charge during the time of crisis
- Action steps – broad general action steps to respond to the crisis
- Crisis protocols – more specific actions to respond to certain situations or threats
- Establish the scope of the plan – clear directions to the responsible staff should clarify the scope and depth of the plan
- Identify key response modes – clearly identify the limits and areas of emphasis for response based on staff capabilities and resource limitations
- Establish communication methods – communication must be with one voice, clear and consistent and through a number of different mediums

- Establish an emergency operations center
- Ensure redundancy of critical staff and facilities – quite often crisis may result in loss of critical staff or facilities making redundancy critical to plan success.
- Clarify media responsibilities – who is and who is not to speak to the media
- Specify the role of campus security and role of outside agencies
- Plan for business resumption

Developing a plan with all of these attributes that is reviewed and constantly updated will greatly contribute to successfully navigating through a crisis (Zdziarski, Dunkel, Rollo, & Assoc., 2007).

The Prevention Phase

Crisis Prevention is proactive crisis management. The goal of crisis prevention is to avoid a crisis (Coombs, 2012). Understanding the potential threats and training to counter those threats is the best way to prevent a crisis from occurring. Testing the plan through crisis simulations can be an effective tool in reproducing a crisis situation as closely as possible (Burrell, 2009). Crisis simulations should aim at producing similar reactions and feelings in participants such as tension, uncertainty, time pressure, inadequate information, frustration, and other elements (Borodzicz & Van Haperen, 2002). The simulations should be followed by rigorous debriefings (Boin, & Lagadec, 2000).

The Response Phase

During an actual crisis, the plan is put into effect in real time. Team members are tested on their preparation and knowledge of the plan and protocols. Tension can run

high and communication can be strained. If the plan has been well thought out, tested and practiced, it will make this phase much easier for the organization to endure. Zdziarski, Dunkel, Rollo, & Assoc. (2007) state “A well crafted plan with clear working relations established between the various players will allow for a coordinated response that uses the campus energy and resources to respond to the crisis, rather than to work on its own inner conflicts.” (p. 48)

The Recovery Phase

The type of crisis greatly affects how the recovery process will occur. Some disasters devastate whole communities and change the organization forever whereas other crisis may not result in a significant change in operations once it has been mitigated. Still this phase can be characterized by closure events, memorials, recognitions, and other ceremonial events designed to bring closure and initiate healing. It is very important to ensure that the crisis team and other critical staff are given the opportunity to rest and heal so that they may be ready and willing to serve in future crises.

The Learning Phase

Regardless of the number of phases in the crisis response continuum, the crisis management literature emphasizes the importance of all stages as equally critical to a successful crisis management program (Abent, 1999; Augustine, 2000; Barton, 2006; Coombs, 2012; Federal Emergency Management Administration, 2003; Guth, 1995; Kovoov-Misra, 1995; Mitroff, Diamond, & Alpaslan, 2006; Zdziarski, Dunkel, Rollo, & Assoc., 2007). However perhaps due to the more generalized nature of the initial

planning and preparation process that applies to all institutions compared to the much smaller proportion that actually endure a crisis compared to the even fewer who actually learn information that might be valuable to their peers through their own crisis experience, there is not very much written about the learning phase of the crisis management process. This is certainly not to suggest that there are not numerous articles detailing the lessons learned from various crises across the nation, but rather to state that there seems to be a gap in the literature concerning the actual debriefing process that generates the lesson learned. It is possible this is due to the individualized nature of each institution so that any debriefing process, beyond that of the counseling-type stress debriefing, would need to be customized to the activities and work processes of the organization. There does not seem to be a guide for debriefing many of the critical processes that are affected during a crisis incident which could generate the learning.

Crises are important opportunities for learning (Kovoor-Misra & Nathan, 2000). However it is a mistake to believe that learning and reform always follows a crisis incident (Boin, 2004; Kovoor-Misra & Nathan, 2000). First, post-crises learning is time sensitive with the opportunity for learning transitioning through three processes: first defensiveness then openness to learning, and finally followed by forgetfulness (Kovoor-Misra & Nathan, 2000). If the organization does not properly debrief and codify the learning within the appropriate window of time, potential opportunities for progress may be lost and organizational behavior may revert to pre-crisis standards. Secondly, the process of evaluation and assessment can be political in nature such as the framing of the impacts of the crisis, processes of accountability, and blame allocation ('t Hart & Boin,

2001). Arjen Boin (2004) also observed this possible gap in the literature when he stated “an interesting question for further research concerns how these political processes relate to conventional questions regarding learning and prevention” (p.173). The truth is organizations often fail to learn (Lagadec, 1997), refuse to learn (Perrow, 1984), learn the wrong things as in superstitious learning (Kovoor-Misra & Nathan, 2000) learn only in symbolic ways or learn in slow ways (Boin, 2004). This is a critical issue as it is often during the assessment and learning phase that the determination of the success or failure of the previous phases is determined and to what extent. Too often, organizations are deemed to have either failed or, much less likely, succeeded at managing a particular crisis. The truth is that success and failure should be measured in relative degrees (Pearson& Clair, 1998; Perrow, 1984). As Pearson and Clair (1998) state, “Evidence of organizational failure is plentiful, whether in loss of life, depletion of resources, contamination of the environment or damage to organizational reputation. These outcomes are measureable, newsworthy, and visible to academics, the press, and the community; conversely, full success at crisis management is, by definition, invisible – to academics, the press, and the community” (p. 67). It is much more likely that success and failure in crisis management falls along a continuum where success in many areas of the organization may end up being overshadowed by a significant failure in one area (Pearson & Claire, 1998). Having an established process that guides in the assessment and learning could enhance the overall learning phase of a crisis management plan.

Texas A&M University at Galveston's Crisis Management Plan

Texas A&M University at Galveston had a crisis management team in place well before Hurricane Ike landed. A two tiered team that aligned critical staff and faculty into the executive/strategic operations team or incident command team, the crisis management plan clearly identified critical staff and their role during a crisis (Texas A&M University at Galveston website, 2010). As a small campus, the team members had worked together in non-crisis situations and were fairly close-knit, but had the additional experience of working together in crisis mode through numerous table top exercises and previous hurricane evacuations. In fact, the campus had developed the hurricane evacuation into a well honed process with regular meetings, assigned leadership and detailed emergency plans. However, all of the drills and practices could never completely replicate the thousands of management decisions that would need to be made by the crisis management team in the wake of Hurricane Ike. These decisions were often required to be made with partial information and no previous body of knowledge that was relevant to the situation. In many ways, they were operating in new, untested territory with high stakes decisions being made moment by moment. These decisions, although certainly difficult under the circumstances, had far reaching consequences and need to be examined with regards to their impact, organizational learning and implications for future crisis management in higher education.

Texas A&M University's Risk Management Process

After a number of high profile crises, TAMU- College Station developed their university risk and compliance department to mitigate future crises. This department works with all university departments, including Texas A&M University at Galveston, to identify, assess, mitigate, and follow up on various risks. On their website, they advocate for an enterprise-wide risk management program which entails the following steps:

- Identifying major activities, processes, and functions after reviewing missions, goals, and objectives.
 - Categorizing and prioritizing the major activities.
- Identifying and assessing risks and building risks portfolios.
 - Receive input from representatives within the University.
 - Prioritize and rank those risks identified as to potential impact and probability of occurrence while considering the day-to-day activities to control risk.
- Identifying risk mitigation strategies.
 - Review mitigating activities performed for all risks while focusing on how we deal with those risks ranked highest.
 - Review mitigation where two or more parties (groups) are identified as responsible.
 - Evaluate the effectiveness of current mitigation and identify any gaps.

- Evaluate whether resources and mitigating strategies are appropriately allocated based on the level of risk and desired level of effectiveness.
- Review the monitoring and executive management reporting.
 - Identify who is responsible for monitoring that the mitigating activity is effectively managing the risk and being performed as planned.
- Performing status/follow-up reviews.
 - Review executive management reporting and communication.
 - Assess the efficiency and effectiveness of mitigation, monitoring, and communication. (Texas A&M University Website, 2012)

Although University Risk and Compliance did not have a strong role with the Galveston campus, they have been an important resource after the storm.

Performance Management Systems

In considering the performance of any management team, performance management systems are tools to holistically consider the performance of a group of employees to work toward optimum performance of a particular task or groups of tasks. There are a number of performance management systems that can be considered. The ISO 9000 is a series of quality management system standards and guidelines based on eight principles (International Organization for Standardization, 2010). Quality Operating System, as developed in the late eighties by Ford Motor Company, is focused on teams, use of standards, quality tools, reporting forms, and a closed loop feedback process. Lean Thinking, as developed by Toyota, is focused on eliminating waste within

a system which translates to zero waiting time, zero inventory, efficient scheduling, less down time, etc. (Holweg, 2007). Six Sigma, as developed by Motorola, is a methodology for improving the capability of business processes by focusing on eliminating variation and reducing defects and creates an infrastructure of people who are specially trained in these areas (Antony, 2008). Capability Maturity Model® Integration (CMMI®) is a process improvement approach that provides organizations with the essential elements of effective processes. In other words, it is a model for building process improvement systems. In the same way that models are used to guide thinking and analysis on how to build other things (algorithms, buildings, molecules), CMMI is used to build process improvement systems (Entinex, 2010). The Malcolm Baldrige Criteria for Performance Excellence (hereto after referred to as the Baldrige Criteria), established in 1987 by an act of Congress, establishes a set of criteria for making awards for quality and performance and for giving feedback to applicants. These criteria are based on eleven interrelated core values and are designed to help improve organizational performances, capabilities, and results; to facilitate communication and sharing of information on best practices among U.S. organizations of all types; and to serve as a working tool for understanding and managing performance and for guiding organizational planning and appropriate learning (The Quality Texas Foundation, 2009).

The Baldrige Criteria

In selecting which of these performance management systems would be the most effective tool to utilize for assessing Texas A&M University at Galveston's crisis

management team and its performance related to the effects of Hurricane Ike, the Baldrige Criteria stands out above the others for this particular scenario. For one, the Baldrige Criteria are much broader than the ISO 9000, Lean Thinking, or Six Sigma in its perspective and application. Secondly, the Baldrige Criteria is non-prescriptive and adaptable which allows it to be more effective at assessing past management processes (Johnson, 2006; Moore, 1996; Padro, 2003). Third, although the Baldrige Criteria are based on eleven core values of high performing organizations and could be used generically in any organization, the Baldrige management system is the only system that has a criterion set that specifically addresses educational organizations. Fourth, the Baldrige Criteria have been tested empirically and proven to demonstrate content and face validity in their measurements (Jayamaha, Grigg, & Mann, 2008). Lastly, the Baldrige Criteria provide several levels of self assessment tools that are responsive to a college or university's unique situation, a critical component when considering the individualized learning that comes out of a crisis incident (Quality Texas, 2003).

The Baldrige Criteria for education provide the accountability measures that are critical for higher education (Seymour & Assoc., 1996). Nitschke (2000) went further declaring the Baldrige Criteria "the world's most widely accepted model for leading an effective organization..." (p. 3). The Baldrige Criteria provide a systemic process for performance improvement without mandating how colleges and universities must run their institutions (Nitschke, 2000). The Baldrige Criteria's focus on quality performance and the assessment, results, and improvement cycle have influenced higher education

accreditation agencies as well as inspired similar quality based award programs in nearly all fifty states (Bender & Schuh, 2002; Ruben, 2004).

The Texas Quality Foundation

In 1994, the Quality Texas Foundation was chosen to administer the Texas Award for Performance Excellence, an award which is based on the Baldrige Criteria (Quality Texas Foundation, 2009). The Texas Award for Performance Excellence for Education utilizes the same core values as the Baldrige Criteria for education: visionary leadership; learning centered education: organizational and personal learning; valuing faculty, staff, and partners; agility; focus on the future; managing for innovation; management by fact; social responsibility; focus on results and creating value; and a systems perspective. This translates to seven categories to review for quality in education: leadership; strategic planning; student, stakeholder, and staff focus; measurement, analysis, and knowledge management; faculty and staff focus; process management; and organizational performance results (Quality Texas Foundation, 2009). In addition, the Texas Award for Performance Excellence has a phased level approach to achieving the Baldrige Criteria. The first level, Engagement, is developed for organizations that are just beginning the quality process. The second level, Commitment, is for those organizations that have made a commitment to utilize the quality principles and are very early in their journey. The third phase, Progress, is for those organizations that are making significant progress toward applying for the quality award. Quite often, these organizations are reaping the benefits of their transition. The

fourth phase, Award, is for those organizations that have fully adopted the quality process and are actually applying for the Texas Award for Performance Excellence (Quality Texas Foundation, 2009). Although there does not seem to be any literature indicating its use in assessing crisis response and learning, the Engagement level of the Quality Texas program (Appendix A) may be ideal for such assessment particularly due to the self assessment nature of reviewing crisis response as well as its focus on educational institutions.

Summary of Literature Review

Although crises have long affected organizations, the study of crisis and the successful management of crisis are a relatively new phenomenon. This is even more the case in the field of higher education. Recent major crises such as 9/11, Hurricane Katrina and the Virginia Tech Massacre have re-emphasized the need for crisis management teams and well developed crisis management plans at institutions of higher education. Furthermore, this focus on the first stages of crisis management has led to a perception among higher education leaders of readiness for crises. Unfortunately research and experience inform us that all too often they are not nearly as prepared as they needed to be once crisis actually strikes. Furthermore very little focus has been placed on the formalized assessment and organizational learning process after a crisis occurs. The only studies available offer individualized anecdotal “lessons learned” or comparative studies between similar disasters with no system- wide assessment. There

is a distinct knowledge gap in this area as to how to assess the performance of the crisis management teams and formalize the learning process after a crisis.

The Baldrige Criteria offer a system based assessment process to evaluate organizational performance. Due to its non-prescriptive and adaptable nature it can be used to assess past performance such as a recent crisis situation. Although it may be ideally suited to provide a system assessment of an organization that has just experienced a crisis event, there is nothing in the literature suggesting it has ever been used in such a manner. In addition, the Baldrige Criteria has specifically been tailored for education, and the Texas Quality Foundation has further adapted the criteria for use by organizations that have not previously utilized the process. Their phased approach, allowing educational institutions who have not yet embraced the quality tools to still benefit from the quality process, may be an ideal process to assess the performance of a management team that has recently dealt with a crisis.

CHAPTER III

METHODOLOGY

Introduction

This chapter details the research approach for this study to include the rationale for a qualitative research design, more specifically the case study research methodology. After detailing the numerous benefits of applying this design and methodology to this subject matter, this chapter will further detail the theoretical framework, participant selection, data collection and recording processes, and data analysis techniques. The chapter will conclude with a description of the techniques used to ensure the quality of the study.

Restatement of the Purpose

The purpose of this study is two-fold: (1) to examine the Texas A&M University at Galveston's crisis management team's approach, deployment, and learning as a consequence of Hurricane Ike in the effort to return the campus to Pre-Ike status; (2) To evaluate the Quality Texas Foundation- Engagement Level Criteria as a framework for assessing crisis management in higher education.

Research Questions

1. What approach did Texas A&M University at Galveston utilize in their crisis management process?

2. What strategies did Texas A&M University at Galveston deploy in applying their approach consistently and ensuring the approach was utilized by all appropriate work units?
3. What learning occurred as a result of refining the approach through cycles of evaluation and improvement?
4. To what extent is the Baldrige Criteria an effective framework for assessing crisis management in higher education?

Selection of Methodology

Qualitative research methods were adopted in this study of the decisions, actions, and events occurring during a singular bounded event, Texas A&M University at Galveston's crisis management team's response to Hurricane Ike. Qualitative research is defined as "an inquiry into the process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of information, and conducted in a natural setting" (Cresswell, 1994). Many scholars have recommended the use of qualitative research methods to help increase our understanding of the human experience (Maykutt & Morehouse, 1994). In addition, qualitative research is best utilized in an effort "to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself, so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting –what it means for participants to be in that setting, what their lives are like, what's going on for them, what their

meanings are, what the world looks like in that particular setting – and in the analysis to be able to communicate that faithfully to others who are interested in that setting...The analysis strives for depth of understanding” (pg. 1) (Patton, 1985). Qualitative, in-depth interviews, exploratory and descriptive in nature, provided the researcher the opportunity to gain a deeper understanding of the participants’ experiences and perceptions within a particular context and thereby provide a thick, rich description of the event being studied.

In their seminal work concerning qualitative research methods, Lincoln and Guba (1985) advocate five axioms of the naturalistic paradigm. These principles guided this study through the process of research design, data collection and analysis. The first axiom concerns the nature of reality and states “there are multiple constructed realities that can be studied only holistically; inquiry into these realities inevitably diverge (each inquiry raises more questions than it answers) so that prediction and control are unlikely outcomes although some level of understanding can be achieved” (p. 37) (Lincoln & Guba, 1985). The very nature of crisis response is incredibly complex and often tailored to the exact crisis during that exact moment. The same scale of a hurricane striking even three weeks earlier could have resulted in a completely different response and reality. Add to this concept the diverse backgrounds, experiences and perceptions of the crisis management team members, and there is a broad array of realities that could occur. This study assumed the existence of multiple realities and focused on processes with the goal of achieving some level of understanding rather than being able to predict future outcomes.

The second axiom refers to the relationship of knower to known and states “the inquirer and the ‘object’ of inquiry interact to influence one another; knower and known are inseparable” (p.37) (Lincoln & Guba, 1985). The researcher and participants must interact and eventually influence each other as well as the outcome of the study by the very nature of the interview process. Furthermore, the researcher, as part of the crisis management team, experienced many of the same difficulties and interacted heavily with the participants throughout the crisis and even today. Sustained engagement with the participants has provided additional insight into the participants’ crisis experiences, the meaning they derived from those experiences, and the context in which they operate. This relationship between researcher and participants exists invariably and is taken into account through the study.

The third axiom considers the possibility of generalization and specifies that the “aim of inquiry is to develop an idiographic body of knowledge in the form of ‘working hypotheses’ that describe the individual case” (p.38) (Lincoln & Guba, 1985). They go on to state “local conditions, in short, make it impossible to generalize. If there is a ‘true’ generalization, it is that there can be no generalization. And note that the ‘working hypotheses’ are tentative both for the situation in which they are first uncovered and for other situations; there are always differences in context from situation to situation, and even the single situation differs over time” (p.124) (Lincoln & Guba, 1985). This study recognizes the uniqueness of the actual incident as well as the unique context in which all of the actions occurred. A strong effort was made to enhance the “thick description” of the event, particularly with regard to process and context, throughout the study so as

to improve the transferability and fittingness of the research so that it might possibly be applicable to future situations.

The possibility of causal linkages is the focus of the fourth axiom which states "All entities are in a state of mutual simultaneous shaping so that it is impossible to distinguish cause and effect"(p.38) (Lincoln & Guba, 1985). True linear causality is a difficult phenomenon to conclusively prove in human behavior (Lincoln & Guba, 1985). There are so many variables, each potentially impacting one another, and this is a major factor in naturalistic inquiry which focuses on the human experience. Through the course of the study, the researcher was aware of this fact, particularly with regards to the necessary interactions with participants, and considered this axiom heavily during the data analysis phase of the study.

Lastly axiom number five defines the role of values in inquiry. Lincoln and Guba (1985) explain this through a series of five corollaries:

1. Inquiries are influenced by inquirer values as expressed by the choice of the problem.
2. Inquiry is influenced by the choice of the paradigm that guides the investigation into the problem.
3. Inquiry is influenced by the choice of the substantive theory utilized to guide the collection and analysis of data and in the interpretation of findings.
4. Inquiry is influenced by the values that are inherent within the context

5. With respect to the corollaries 1 through 4 above, inquiry is either value resonant or value dissonant. Problem, paradigm, theory, and context must exhibit congruence if the inquiry is to produce meaningful results (p.38).

In effect, values play a significant part in inquiry, and this study was impacted by the researcher's values, the values of the theoretical framework, the values of the participants, and the context of the situation.

Once these axioms are understood and adopted, they provide a framework of operational characteristics of natural inquiry. These characteristics outlined by Lincoln and Guba (1985) provide a coherence and interdependence to an inquiry that informs the research process. These fourteen characteristics include:

1. Natural setting – the research is carried out in the natural setting of context of the entity for which the study is proposed.
2. Human instrument – the researcher is the primary instrument of data collection and analysis.
3. Utilization of tacit knowledge – the researcher uses intuitive and tacit knowledge as well as spoken knowledge so as to better understand the nuances of the multiple realities.
4. Qualitative methods – qualitative methods are more adaptable to multiple realities and mutually shaping influences occurring in human behavior.
5. Purposive sampling – With purposive sampling, the researcher increases the likelihood that the full array of multiple realities, local conditions influencing the grounded theory, mutual shapings, and local values

6. Inductive data analysis – While better to expose multiple realities, this process also is more likely to describe fully the setting and to make transferability to other settings more possible.
7. Grounded theory – the guiding theory should be grounded in the data and as such be more responsive to contextual values.
8. Emergent design – allows the research design to emerge rather than pre-construct it preordinately to pursue the multiple realities that may exist.
9. Negotiated outcomes – Work with the participants to negotiate meanings and interpretations to better understand and reconstruct their constructions of reality,
10. Case study reporting mode – the case study is more adapted to a description of multiple realities encountered at a given site.
11. Idiographic interpretations – the research interprets data in terms of the particulars of this case rather than in terms of generalizations.
12. Tentative application – the researcher is cautious in making broad application of the findings due to the realities being multiple and different in an individualized context
13. Focus-determined boundaries – the researcher is likely to set boundaries to the inquiry in an emergent process so as to permit the multiple realities define the focus, rather than inquirer preconceptions.
14. Special criteria for trustworthiness – The researcher will seek other criteria for trustworthiness such as credibility, transferability, dependability, and confirmability.

These characteristics informed the study and guided the researcher in developing a cohesive, naturalistic approach to the problem being studied.

The Case Study Research Design

Once it was determined to utilize a qualitative inquiry, there was a need to further clarify the specific research design. “Scholars use the phrase qualitative inquiry as a blanket designation for all forms of social inquiry that rely primarily on qualitative data including ethnography, case study research, naturalistic inquiry, ethnomethodology, life history methodology, and narrative inquiry” (p. 213) (Schwandt, 2001). The case study design is employed “to gain an in-depth understanding of the situation and meaning for those involved. The interest is in process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation. Insights gleaned from case studies can directly influence policy, practice and future research” (p.19) (Merriam, 1998). Furthermore, case studies differ from the other forms of qualitative inquiry in that they are in-depth descriptions and analyses of a single unit or bounded system (Smith, 1978). In fact, case studies by definition “get as close to the subject of interest as they possibly can, partly by means of direct observation in natural settings, partly by access to subjective factors (thoughts, feelings, and desires)” (p.23) (Bromley, 1986)

Merriam (1998) argues that the case study can be further defined by its special features, specifically its particularistic, heuristic, and descriptive nature. There are a number of benefits that are derived from these features. For instance by being

particularistic, a case study is very specific in focusing on a particular event, phenomenon or situation. Through this singular focus on a particular instance, the case study can give insight to a general problem. In addition, it can suggest to the reader what to do, or not to do, in similar situations. Depending on the case study, it may or may not be influenced by the researcher's bias. The heuristic nature of the case study can often explain the multiple reasons for a problem, detailing exactly what happened and why. The case study method is extremely effective at explaining why an innovation worked or did not work as well as discuss and evaluate alternatives not chosen. It is through this heuristic ability to evaluate, summarize and conclude, that allows a case study to increase its potential applicability (Merriam, 1998).

The descriptive nature of a case study may be its most significant feature. Merriam (1998) provides a list of the many descriptive benefits of the case study when she states a case study can:

- Illustrate the complexities of a situation – the fact that not one but many factors contributed to it.
- Have the advantage of hindsight yet can be relevant in the present.
- Show the influence of personalities on the issue.
- Show the influence of the passage of time on the issue- deadlines, change of legislators, cessation of funding, and so on.
- Include vivid material – quotations, interviews, newspaper articles, and so on.
- Obtain information from a wide variety of sources.

- Cover many years and describe how the preceding decades led to a situation.
- Spell out differences of opinion on the issue and suggest how these differences have influenced the result
- Present information in a wide variety of ways...and from the viewpoint of different groups (p.31)

These particularistic, heuristic, and descriptive aspects of the case study made this research design ideally suited for this study. Specifically a qualitative case study approach was used to study how the crisis management team at Texas A&M University at Galveston responded to the impact of Hurricane Ike. The use of a descriptive case study was utilized to develop a thick rich description of the processes and decisions surrounding the crisis management and recovery. The study was focused on discovery and exploration with an emergent design being employed to consider the multiple realities for the various members of the crisis management team members.

Theoretical Framework

The theoretical framework that will guide the study came from the Baldrige Criteria and the Quality Texas Foundation. The Quality Texas Foundation has established the Texas Award for Performance Excellence which identifies specific criteria for educational performance excellence. These criteria are generated from the National Malcolm Baldrige Criteria for Performance Excellence. The seven criteria are subdivided into 18 examination items (two for each of the first six criteria and six for

criteria 7) that focus on major requirements. Each item consists of one or more Areas to Address. There are 35 Areas to Address. Each Area to Address has a set of questions. In all there are over 200 questions that cover every phase of organizational life. Both face and content validity for these questions have been established through numerous studies (Jayamaha, Grigg, & Mann, 2008; Winn & Cameron, 1998). Furthermore the criteria make up only one part of a two-part diagnostic or assessment system. The Criteria are a set of 19 performance-oriented requirements. The Scoring Guidelines, as the second part, articulate the assessment dimensions for Processes and Results.

From the national Malcolm Baldrige Quality Award's scientifically tested criteria, the Quality Texas Foundation, a state level organization committed to quality performance management, has developed a four stage progressive assessment and application process. The four stages include an Engagement Level for those organizations that are utilizing the Baldrige Criteria for the first time, a Commitment Level for organizations that have committed to utilizing the Baldrige Criteria, a Progress Level for those who have begun reaping the benefits of the Baldrige Criteria and are preparing to apply for the Baldrige Award, and finally a fourth level where applicants are actually applying for the Baldrige Award. The length and depth of application and assessment increase as the organization progresses through the stages. Furthermore, each organization, regardless of level, must compile an organizational profile that offers a snapshot into the key influences, goals and challenges of the organization. This study will utilize only the initial Engagement Level as TAMUG has not implemented the Baldrige Quality process as an organization. As such, even though the same seven basic

criteria of the Baldrige Criteria are utilized, the number of corresponding questions and depth of inquiry are necessarily reduced as an organization that is new to the criteria may not have adopted and previously utilized the process and therefore not been intentional in addressing some of the criteria items. The Engagement Level Criteria framework that was used includes:

- Leadership- how the Strategic Operations Team established and communicated the vision and decisions leading to the recovery from the crisis caused by Hurricane Ike.
- Strategic Planning – how the Strategic Operations Team developed the short term and long term objectives and created the action plans to fully recover from the crisis.
- Customer Focus – how the students and other stakeholders’ needs were assessed and met.
- Measurement, Analysis and Knowledge Management – how data was collected and utilized to inform decision making and tracking overall organizational success.
- Workforce Focus – how the needs of the workforce, many of them facing personal crisis themselves, were assessed and met. The category also considered the overall effectiveness of the organization in promoting the workforce’s cooperation and commitment to the management of the crisis.
- Process Management – how the work systems were implemented to deliver student and stakeholder value that contributed to the recovery from the crisis.

- Business Results – what results were achieved to demonstrate student learning, student satisfaction, budgetary performance, workforce engagement, process effectiveness, ethical behavior and regulatory compliance as a result of the management of the crisis? (The Quality Texas Foundation, 2009).

Under these seven major categories, there are questions covering four to eight subcategories for a grand total of thirty seven questions covering the various approach and deployment processes, as well as results, of the organization. These questions provided the introductory framework of the initial interview session and are listed in Appendix I.

Institutional Characteristics and Participant Selection

Texas A&M University at Galveston is a small satellite campus of Texas A&M University. Made up of three small campuses in Galveston, the main campus consists of eleven buildings situated on 100 acres of a dredge spoil island adjacent to the main island of Galveston. The campus has been in operation since 1962 when the Texas Maritime Academy was established and merged with the Texas A&M Marine Laboratory (Curley, 2005). This unusual combination of maritime cadets with marine research continued to evolve from the original twenty three cadets in the Texas Maritime Academy and six graduate students at the Marine Lab into the over 1778 students at Texas A&M University at Galveston shortly before the hurricane (Curley, 2005). Although there is still a strong presence of cadets and graduate students, undergraduate students not participating in the corps represent the largest percentage of enrollment, and

despite the fact that the academic focus still centers on the ocean, the majors have broadened considerably from a maritime licensing and graduate degrees. The majority of students study undergraduate marine biology, marine sciences, one of the maritime business degrees, or various types of ocean-based engineering. They are a very traditional looking student body at a specialized college campus.

Due to a drastic increase in out of state tuition rates in the 90's, the number of out of state students has declined from a time where over a third of the student body originated from out of state to the point just before the storm where 1507 of the 1778 students are residents of Texas. These students are typically high academic achievers with over 70% graduating in the top quarter of their high school class, and as such most of the freshmen TAMUG students had high school classmates who eventually chose TAMU- College Station. Furthermore there is a process in place at the Galveston campus that enables over 120 students a year who are no longer interested in the marine and maritime degrees of TAMUG to transition to the TAMU- College Station campus after their first year. As a result of these programs, there is a strong linkage between the two student bodies of the campuses, a linkage that became more important in the days following Hurricane Ike.

The culture also contributes to a sense of familiarity. TAMU- College Station is strongly rooted in its military tradition, and as a satellite campus that also started with a history of cadets, TAMUG has endeavored to adopt many of those traditions. Many of the traditions center on leadership, service and working together, all qualities that are critical in crisis situations. Through these traditions, football games, various leadership

conferences and other activities, many TAMUG students are frequent visitors to the TAMU- College Station campus. Academically, demographically, and socially, the Sea Aggies of Texas A&M University at Galveston are extremely similar to, and familiar with, their counterparts at the main campus in TAMU- College Station.

The same is true in many ways of the staff and faculty. With 89 faculty and 285 staff, many of the faculty and staff have worked or studied at the main campus. In fact some have dual reporting responsibilities and numerous meetings with counterparts at TAMU- College Station. Many of the processes have been aligned for the smaller campus to reap the benefits of the deeper resources of the main campus. The end result is one student information management system, one diploma for graduates, one tenure track process, and a number of other parallel or similar processes to tie the campuses together.

Yet there is one major difference between the two campuses – size. The small size of the institution is a critical factor that must be understood to properly understand the context of the management processes and decision making. The small size of TAMUG as well as longevity of its administration contributed greatly to the level of familiarity, trust and support among the faculty and staff. In fact the average time of service of the twelve crisis management team members at the time of Hurricane Ike was fourteen years. It is through this lens that we must examine the crisis management processes of Texas A&M University at Galveston.

The study concerns management processes and decisions made during the crisis of Hurricane Ike. This study used purposive sampling to define the population and

selected the administrators, faculty, and staff who were identified as members of the crisis management team. Additional subjects who were added to the team during the crisis management process and had any role in making management decisions with regards to the crisis management of Hurricane Ike and the return to normal operations were interviewed as well. For example, the previous Executive Associate Vice President who was instrumental in developing the campus emergency response plan and who had retired shortly before the crisis and was brought back on shortly after the crisis was also interviewed. Furthermore, the Vice President and CEO, although not identified as a formal member of the crisis management team, was also included in the interview process due to his extensive role in managing the Hurricane Ike crisis.

Two original members of the crisis management team were not interviewed as they had little involvement in the actual crisis management. One had already accepted another job at another institution prior to the hurricane and left very shortly after the hurricane struck. The other was out of state at the time of the crisis and continued personal issues prevented him from participating in the crisis management. In addition, one individual who was present and observed many of the decisions was originally identified as a possible subject for interview, but was eventually eliminated from consideration by the Institutional Review Board due to the fact that he is currently employed by the researcher as a subordinate, a position that generated concerns as to his freedom to choose to participate in this study. As he was not in a decision making role, nor an official member of the crisis management team, this decision did not affect the study.

With the exception of the researcher, all eleven individuals who were active participants of the crisis management team were interviewed. The participants included:

- Vice President and CEO of the campus, who was the top executive for the campus.
- Associate Vice President for Research
- Associate Vice President for Enrollment Management
- Associate Executive Associate Vice President
- Assistant Vice President for Finance
- Assistant Vice President for Administration
- Assistant Vice President for Student Affairs and Auxiliary Services
- Executive Director of Admission and Records
- Director of Communications
- Director of Information Services
- Previous Executive Associate Vice President

Data Collection and Recording

Instrumentation

As with all naturalistic inquiry, the researcher served as the primary instrument of inquiry. As stated by Guba and Lincoln (1985), “Moreover, the advantage of beginning with a fund not only of propositional knowledge but also of tacit knowledge and the ability to be infinitely adaptable make the human investigator ideal in situations

in which the design is emergent; the human can sense out salient factors, think of ways to follow up on them, and make continuous changes, all while actively engaged in the inquiry itself” (p. 107). This role was critical to exploring and evaluating the numerous contexts and multiple realities that developed during the course of the study.

Furthermore, the researcher was extremely well qualified for this specific role. After seventeen years at the institution, long-term professional interaction with most of the interviewees, and as a member of the crisis management team during Hurricane Ike, the researcher was extremely qualified to understand the individual participant’s experiences and communicate them as an instrument. The researcher was able to discern the participants’ values and beliefs, while remaining very aware of the mutual simultaneous shaping that was occurring between the various respondents and the researcher, to develop a thoroughly negotiated outcome.

Interview Protocol and Data Collection

Permission was granted from the TAMUG campus executive team to interview all members of the crisis management team. Once the theoretical framework was identified as the Engagement Level process from the Quality Texas Foundation, the interview protocol was determined and application was made to the Texas A&M University’s Research Office’s Institutional Review Board (IRB) to ensure the process was performed in accordance with IRB protocol. Once approval was granted to proceed, each member of the crisis management team was contacted via email to inform them of the study and request an interview. All purposively selected participants agreed to be interviewed in their respective offices. As the process questions set forth by the Quality

Texas Foundation were quite complex with a great amount of detail required, the researcher sent the participants the initial list of questions a week prior to the interview so the participants could ruminate on them as well as collect any additional data such as meeting minutes, after action reports, enrollment data, and other artifacts.

The interviews were semi-structured in that an initial introductory statement was read to each interviewee (Appendix B) before progressing into the Quality Texas Foundation- Engagement Level questions. Each question was read verbatim to all participants, but the interview overall followed an emergent design which also allowed the participants to focus on the issues they found of most importance under each of the seven categories. Interviews typically lasted approximately two hours with the longest lasting nearly four hours. Interviews were recorded and transcribed, and the transcriptions were provided to each participant for “member checks”, that is to review for accuracy and/or clarification. All participants were asked to re-confirm the use of the transcripts for the study which all eventually did. Follow up meetings occurred to discuss conflicting information or to follow up on offered artifacts not available at the initial meeting. Many participants offered substantial documentation in the form of emails, reports and other data to further support the study. All documentation was logged with the date received as well as who provided it.

Researcher Reflexive Journal

A technique for enhancing the credibility, transferability, dependability, and confirmability of an inquiry as well to assess the level at which the inquirers bias influenced the outcome is called the reflexive journal (Lincoln & Guba, 1985). This

process involves the investigator recording various information about self and method, providing information about methodological decisions and the reasons for making them. Journal entries were made prior to interactions with the participants, immediately after interviews and at other frequent times during the course of the study. Information in the journal entries included basic information such as dates, locations and times of interviews, but also provided an outlet for ideas and various thoughts and concerns throughout the course of the study. The reflexive journal provided a running commentary on the researcher's state of mind as the study unfolded, with potential hypotheses and follow up questions, questions about perceptions and potential bias within the researcher's own mind. The reflexive journal was kept from slightly before the first interview in June, 2011 until present.

Data Analysis

The process of conducting qualitative research entails reviewing large amounts of information and identifying certain patterns or themes. Full transcripts of the interviews were created to be analyzed for these patterns. The transcripts were reviewed using the techniques of content analysis. Content analysis refers to the search for recurring words or themes, pattern recognition, core consistencies and meanings derived from the information obtained (Patton, 2002). The various data generated for the study from interviews, observations, documents, and records were analyzed by means of a constant comparative method (Lincoln & Guba, 1985). This process utilizes unitizing,

categorizing, and developing/identifying themes and patterns to develop descriptive and exploratory categories (Lincoln & Guba, 1985).

Unitizing data

One of the most critical steps in the process of data analysis is the unitizing of data. This process entails reducing all forms of data to the very most basic units or chunks of meaning. Lincoln & Guba (1985) define a unit of data as possessing the following characteristics:

First, it should be heuristic; that is, aimed at some understanding or some action that the inquirer needs to have or take. Unless it is heuristic, it is useless, however intrinsically interesting. Second, it must be the smallest piece of information about something that can stand by itself, that is, it must be interpretable in the absence of any additional information other than a broad understanding of the context in which the inquiry is carried out. Such a unit may be a sentence... It may be as much as a paragraph... These units are found within observational and interview notes, documents and records, notations about unobtrusive informational residues or non-verbal cues, and the like (p345-345).

To assist in the management of the thousands of chunks of data, the researcher utilized a knowledge management software system named MAXQDA. This software allowed the researchers to load the various forms of data, including transcribed interviews, documents and records onto the computer and then break each document into its most basic units of data. Furthermore, the program allowed the researcher to denote each chunk of data with a researcher assigned code, color and comment. This process allowed for a much more effective management of data while still allowing for content analysis and grounded theory to develop. As the data was being unitized, themes and patterns were further assessed and such tools as text analysis were utilized to further explore trends and identify key learnings. Particular attention was focused upon those

themes relating to the approaches utilized in their crisis management process, the strategies deployed in applying their approach consistently and ensuring the approach was utilized by all appropriate work units, the learning occurred as a result of refining the approach through cycles of evaluation and improvement, and the extent to which the approach utilized by Texas A&M University at Galveston aligned with its organizational needs so that their measures, information, and improvement systems were complementary across processes and work units.

Evaluation of the Quality of the Study

Trustworthiness

As a naturalistic inquiry, certain techniques were utilized within the investigation process to establish the trustworthiness of the inquiry's findings. The subject matter of this study does not lend itself to the conventional experiment that permits the manipulation of variables to demonstrate validity, soundness and significance. Instead, the four components of trustworthiness- credibility, transferability, dependability, and confirmability – were addressed to make this qualitative study's findings “worth paying attention to” (Lincoln & Guba, 1985).

The first of these, Credibility, refers to the manner in which the inquiry is performed in such a way that the probability that the findings will be credible is enhanced, and second, to demonstrate the credibility of the findings by having them approved by the constructors of the multiple realities being studied (Lincoln & Guba, 1985). Several strategies are suggested for enhancing the credibility of a study.

Prolonged engagement, which allows for building trust and learning the culture, was in place as the researcher worked with many of the respondents for years prior to, during and after the crisis. As the researcher was involved throughout much of the decision making, the additional technique of persistent observation added further salience to the observations. By targeting all members of the Crisis Management Team as well as other involved individuals, triangulation of the differing responses from the different subjects further added credibility to the study. To bolster the credibility of the findings, member checks, whereby data analytic categories, interpretations, and conclusions were tested with members of the stake holding groups from whom the data was originally collected, was utilized (Lincoln & Guba, 1985).

Transferability refers to the extent to which the findings of the study can be transferred, or applied, to situations beyond the study. Although every crisis is unique in how it affects an organization, there are certain parallels in the management and assessment of the decision making. Through purposeful sampling of all involved decision makers and relying on proper “thick description,” the researcher provided the widest range possible of information to enhance the transferability of the study and to determine the effectiveness of the use of the Engagement Level Criteria as a set of standards for “best practice” management in a crisis environment.

To address the issues of Dependability and Confirmability, the researcher relied on an independent review of the research methods by a competent peer group (Lincoln & Guba, 1985). The review was performed by a group of researchers at Texas A&M University who served as the researcher’s dissertation committee and reviewed all

aspects of the research methodology. This review included the process as well as the product to ensure their accuracy.

Summary of the Methodology

This chapter explains the basis for the specific methodology utilized for this study. A qualitative case study conducted through the extensive interviews of those who made the critical decisions and the thorough review of documents, records, and other artifacts provide a thick, rich description of the actions surrounding the Hurricane Ike crisis of Texas A&M University at Galveston. Chapter IV provides this rich description in the context of the event through detailed observations, interview notes, and documentation.

CHAPTER IV

THE CASE STUDY

The Context of the Study

The Origins of a Plan

The city of Galveston, Texas has been associated with hurricanes since September 8, 1900 when the Great Storm pummeled the island city. That storm, thought to have been a category 4 hurricane with estimated winds of 145 mph, killed between 6,000 and 12,000 residents and still ranks today as the deadliest natural disaster to ever strike the United States (Weems, J. E., 1980). Besides the tremendous loss of life and devastation to the booming city, the storm is credited with forever changing the path of the once beautiful and prestigious city, frequently called the “Ellis Island of the West” and “Wall Street of the Southwest” due to its booming immigration and industry (Galveston.com & Company, retrieved August 29, 2012). After the storm, development shifted inland to the city of Houston which soon supplanted Galveston as the major city and port of Texas.

When Texas A&M University at Galveston (TAMUG) was established as the Texas Maritime Academy in 1962, the administration was very cognizant of the incredible power of hurricanes, and their power to change history. The first classes were taught in a large underutilized building at Fort Crockett, a former army barracks that also housed the Texas A&M Marine Lab and was situated on one of the highest points on the island (Curley, 2005). The entire city of Galveston, over 2100 buildings and including

the 3,000 ton St. Patrick's Church, had been raised as much as 17.2 feet after the Great Storm using a series of jacks and sand dredged from the bay. This massive engineering feat was only rivaled at the time by the construction of the Galveston Seawall, which further protected the citizens of Galveston and the new campus of Texas A&M University at Galveston (Larson, 2000). Even as the campus migrated from Fort Crockett onto the Mitchell campus, the 100 acre campus that currently houses the majority of university operations, the tenets of strong bunker style buildings situated well above sea level continued to guide the evolving campus as it grew in enrollment and number of buildings. Numerous storms threatened and some even struck the city, but evacuated faculty and students would return to campus and resume their studies rapidly (Curley, 2005).

The possible impact of a hurricane decidedly and forever changing the future of an institution was not fully realized until August 17, 1983. The campus had enjoyed explosive growth over the previous decade. Dr. Steve Curley (2005), Regents Professor in General Academics and unofficial historian of TAMUG stated:

During those ten formative years (1971-1981) the operating budget had risen from approximately \$1.3 million to \$6.5 million. Curricula had expanded from two to seven degree programs; buildings had multiplied from three to nine; undergraduate enrollment had more than quintupled from 91 to 575 (580 in some reports); faculty had more than doubled from 22 to 51; and the library book collection had increased almost tenfold from 3500 to 31,500 (p. 116).

A new residence hall, C-Dorm, was finalized and opened in 1982 that increased the number of campus beds from roughly 200 to over 600 to accommodate the growth in the student body, and the state legislature appropriated \$4.5 million for a library building which would provide 26,667 square feet to house a hundred thousand volumes (Curley,

2005). The concern around campus was whether these two new buildings added enough capacity to contain the incredible growth trajectory that TAMUG was experiencing.

Hurricane Alicia, a category 3 hurricane with incredibly destructive winds, passed over Galveston on August 17 – 18, 1983. The slow moving storm dropped almost eight inches of rain on Galveston, and the flooding and wind gusts caused an estimated \$3 billion in damage to the Houston-Galveston area. (Hurricane Alicia Preliminary Report, 1983). The campus was devastated.

High winds, horizontal rain, and flying objects shattered windows, collapsed roofs, and soaked carpets, sheet rock and furniture. In C-dorm, the rain soaked all floors on the west side of the building. Fifteen rooms in A- and B-dorms were torn up by shattered patio-door glass. Hallways, classrooms, and laboratories were damaged. Because the campus had been evacuated, no one was hurt...The paperback collection in the campus library, still located in the engineering building, was ruined by wind-driven water leaking through a few spots in the roof. Carpeting in the library's reading lounge loft wrinkled and shrank from leaking water and had to be replaced. Luckily the hardbound book and journal collection suffered no losses. Because the library space was so small, about several thousand volumes were safely in storage, most of them at Fort Crockett. The C-dorm roof suffered the most expensive damage, allowing water to seep into walls, which led to chronic mildew problems. New guttering was installed after the storm. It took a year and half and \$550,000 to repair roofs, sheet metal, and structural damage to buildings on campus (Curley, 2005).

With classes scheduled to start only a week later and extensive damage to the residence halls rendering them mostly inhabitable, the campus was forced to seek housing for the students in the community with many staff and faculty taking students into their homes. The State Guard was manning the front gates immediately after the storm and turned many students away. The administration had to wait to get someone onto campus to get the message out that class was going to continue (Interviewee#9, 8-18-11). The growth

trend that had powered so much growth and excitement rapidly flattened out, and it took TAMUG years to recover (Interviewee#11, 9-9-11).

Hurricane Alicia was a critical moment in time not only for its physical impact on TAMUG, but also for its role as the catalyst for the campus' crisis management plan.

As one of the longtime TAMUG Crisis Management Team members stated:

I'm pretty sure we didn't have the residence halls for a year but as far as student affairs was concerned, a great deal of the embryonic planning and stuff, it goes all the way back to that because that's when - right after that I'm pretty certain when - I first started developing the checklist of how to evacuate the dorms before we learned a lot because when we returned...well, you know, that's when the Student Affairs and HR group cleaned out all the refrigerators and we learned key lessons about what we could do to have students better prepare before they got out of there. That was probably the first time we'd really made a conscientious effort to develop Emergency Data Sheets and started collecting data and stuff like that as the storm was approaching. So all of that stuff that's still part of what we do came about because of Hurricane Alicia in 1983. I'm pretty certain that is what prompted us first to put in a section in the University Student life rules – student rules, you know, about evacuation and things. So, that was key... (Interviewee#9, 8-18-11).

In response to the massive damage caused by Hurricane Alicia, the administration initiated a much broader campus emergency plan that involved more stakeholders and was much more prescriptive. The end result was a plan full of detailed lists with key individuals identified and series of checklists to accomplish as a hurricane neared the campus. Its five sections outlined the Concept of Operations, Communications, Basic Action Plans, Action Plans- Physical Plant, and Action Plans- Site Specific (Hinojosa, 1996). This plan received slight modifications each year and became the blueprint for the university's evacuation and hurricane preparation, a process in which they became quite adept through years of practice (Interviewee#9, personal communication, 8-18-11). Although the plan provided very detailed instructions on how to determine whether to

evacuate and how to prepare the campus for an approaching storm, the plan provided no guidance toward business continuity or what to do after the storm beyond the instruction to “Assess Damage”, the final step in each action plan (Hinojosa, personal communication, 6-7-96). As luck would have it, this next step was not necessary for the next twenty five years.

With the arrival of Dr. Bowen Loftin as Vice President and CEO of TAMUG in May of 2005 only a few months before hurricane season, the crisis management plan, particularly the hurricane response, was revisited. As the new CEO of the campus, Dr. Loftin asked long term Associate Vice President William Hearn to brief him on how the campus handled hurricanes. He recalled:

So he showed me the two basic documents. One was an elaborate plan which really dealt with evacuation and primarily the plan dealt with when do you and how do you make the call. So it really -- it dealt with the kinds of sources of models and the data you utilize, the communications with other entities like National Weather Service, places like that, that led up to giving the CEO the information required to make a decision. And so that was well and, I think, well in use. This is something I've done many, many times. There's lots of experience built into that plan. It was clearly a very mature and well-oiled document basically to drive things and we used it several times during my time as the CEO there.

The second piece was really a plan of how the campus was secured and so who does what and to be able to make sure that we get boats away if at all possible by trailering, what kind of things need to be boarded up, moved, relocated, and raised to a higher ground, you name it, and also included things like locations for the administration to be in, locations for police to be in and things like that. So again, our plan had been used a number of times and was quite -- was quite, I think well thought through and obviously had been polished over many iterations. But I asked him a question. I said, “William, okay this is good and fine but what happens now when you have a hurricane hit you and you have to then come back to the campus and restore it some way necessary and resume operations? And what if there is a lengthy gap between the time you evacuated and the time you come back again?” Well, that wasn't there (Loftin, 2011).

Loftin charged the campus executive team with developing what he termed the third piece of the plan – the business continuity piece (Interviewee#1, personal communication, 7-18-11; Interviewee#9, personal communication, 8-18-11; Interviewee#10, personal communication, 9-8-11). The necessity of this phase of the plan became readily apparent only a few short months later as Hurricane Katrina slammed into Louisiana on August 29, 2005. TAMUG administrators paid rapt attention to the numerous colleges and universities that were devastated by the storm.

Less than a month later, Hurricane Rita approached Galveston as the first major storm to threaten TAMUG under Loftin’s tenure. Following the campus plan, the students were evacuated and the campus was secured as the storm drew near. The campus administration had relocated to College Station when the storm spun off and slammed into Beaumont. One of the TAMUG Crisis Management Team reported:

So we sat at College Station, and Rita eventually hits Beaumont. It hit Lamar (University) and it damaged 60 of the 77 roofs. They reopened six weeks later. They lost a lot but they did a very different thing that we did because it’s a very different situation. And there is no storm surge overall and it was all fresh water flooding that was damaged, I guess you know. But we sat there and Loftin says this thing isn’t going to happen again. (Interviewee#5, personal communication, 7-29-11)

The Rita evacuation was unprecedented in that millions fearing a Katrina-like situation hit the highways, creating gridlock. TAMUG, following its well established protocol, had evacuated the students days before everyone else had called for evacuation, which enabled the students to get ahead of the traffic. Many staff were not so lucky with several spending up to twenty hours on the road to reach destinations like Austin or San Antonio (Interviewee#9, personal communication, 8-18-11). Out of the evacuation from

Hurricane Rita, two significant things occurred. For one, the traffic gridlock reemphasized the importance to the administration of making the decision to evacuate early enough to get the students out. Secondly, while evacuated to College Station, Dr. Loftin had the opportunity to visit in depth with then-President of Texas A&M University, Dr. Robert Gates, who suggested that he would be very receptive to the idea of using TAMU- College Station as a base if TAMUG were unable to return to Galveston due to damage from a storm (Interviewee#11, personal communication, 9-9-11). This was the initial discussion that started the development of the business continuity plan as an extension to the crisis management plan. As one participant stated:

So that, Rita was the event, the cathartic event that caused us to create a business continuity plan because, prior to that, we did not have one. Subsequent to that, there were some other events that it caused us to expand our business continuity plan beyond the hurricane. The influenza pandemic fears caused a significant expansion, some other things after that. But in some other entities, the triggering event for business continuity was 9/11. A lot of other organizations saw 9/11 and said that could happen to us too. In a scale of business damage occurred in 9/11 that hadn't occurred in other places before with the loss of the communications downtown in Manhattan, at least the evacuation of a big part of Manhattan. So most of business continuity planning unfortunately triggered by some cathartic event to you or others. In our case, it was clearly Rita. Because prior to that, we didn't have any significant business continuity planning. Since then, we've grown our business continuity planning beyond hurricanes, like the bridge drill we just did. But that was the first business continuity plan I ever saw on this campus. I had disaster planning. I had evacuation planning. I had pre-evacuation planning but I had no post-hit planning (Interviewee#5, personal communication, 7-29-11).

The Evolution of a Plan

On October 21, 2005, a group was convened in College Station to develop the third phase of the TAMUG's Hurricane Response and Crisis Management Plan. This group, consisting of senior administrative leaders from both the Galveston and College

Station campuses, met to discuss the possibility of relocating the Galveston students and operations to TAMU- College Station in the case of a major storm or other catastrophe that rendered the campus unable to continue normal operations for an extended time. The initial meeting consisted of identifying key areas and assigning a TAMU- College Station lead as well as a TAMUG lead to work together to identify issues and designate lead officers for both campuses during emergency conditions. The committee identified eleven primary areas that would need to be addressed. These areas included student relocation, faculty/staff relocation, class schedules/room assignments, teaching assignments, grades/transcripting, research, billing/fees, financial aid, international faculty/staff/students, business services, and IT/communications (meeting agenda and notes, personal communication, 10-21-05). Over the next month, the leaders under each area identified the key issues and potential obstacles to bring back to the group for further discussion on November 22, 2005. Eventually a series of white papers were developed through these partnerships that provided additional detail, identified critical staff, and proposed processes for addressing each area of concern.

While the various administrators were working with their TAMU- College Station counterparts to develop the white papers that would ultimately provide the foundation for the business continuity plan, another team was reviewing and updating the current emergency response plan (Interviewee #3, personal communication, 7-20-11). In the months following hurricanes Katrina and Rita, a lot of information began to circulate concerning the many challenges faced by the various colleges and universities that were impacted by the storms. This new information, coupled with the long and

detailed lists from the older plan, informed a new, broader plan that incorporated new social media and the campus website to further enhance communication (Interviewee #5, personal communication, 7-29-11). It also implemented a deadline for the decision to relocate.

First and foremost and for better or for worse, it set a drop dead time period about which if we can't restart the campus in two weeks, we'll pull the trigger and evacuate because that was pretty easy after Ike to determine that weren't going to be back in two weeks. Very difficult to determine when we would be back but it was clear as hell weren't really going to be back in two weeks. Yeah, that maybe in four weeks or maybe should've been three weeks, maybe should be a week, maybe should be two months, I won't argue that but we had it. We had a very objective deadline..." (Interviewee #5, personal communication, 7-29-11).

On March 1, 2007, an extensive table top exercise testing the hurricane preparedness and campus recovery plan was conducted. The exercise focused heavily on developing a comprehensive response to extensive damage to the campus, and resulted in the development of a tiered response after a serious storm strike (Hurricane Preparedness/Campus Recovery Plan and Table Top Exercise and notes, personal communication, 8-3-11). As one of the participants in the exercise stated:

This was a table top exercise and it's really phenomenal when you look at it. It really has a lot of foresight in here that I never even thought about till I looked at the dang thing. It has pictures of the campus and the coast and it has a picture for hurricane...have you seen this? But then it talks about campus recovery, return to the campus, campus business continuity, TAMUG/ TAMU integrated plan, hurricane emergency preparedness plan that was on the website at that time, and actually copied it too. Tier 1, tier 2, tier 3, how you return, quality of return, so we had everything in this table top exercise which is pretty... this is a really strategic planning as far as I'm concerned. And then if you look at questions that were asked on this table top exercise, this is how we came up with the 'what happens if', establish campus command, post Blackmon mooring out here immediately which we did do, coordinate with MARAD for use of ship which we did do. Lodging-dining commitments, financial implications, identification of additional resources, long range - what if TAMU gets closed two months, six

months, one year. So, we talked about that at this meeting, and that's how when we make a decision to relocate happened. So, that's kind of cool that this was done a few years before Ike (Interviewee #6, personal communication, 8-2-11).

Information learned from the table top exercise was added to the updated emergency response plan and combined with the continuity plan to produce the Emergency Short-Term and Long-Term Recovery and Business Continuity Plan (Emergency Short-Term and Long-Term Recovery and Business Continuity Plan, 2007).

One other significant aspect in the evolution of the plan was the changing of the top administrator of the plan. The Executive Associate Vice President was historically charged with overseeing the crisis response for the campus. William Hearn, the current Executive Associate Vice President, had served the university for 33 years and was well respected for his crisis management skills, strong leadership, and corporate knowledge when he decided to retire on January 31, 2008. He retired with a capable staff and a strong crisis management plan in place. Barely a month later, Dr. Rodney McClendon was named his successor and assumed the position of Executive Associate Vice President and Chief Operating Officer at TAMUG on March 1, 2008. Dr. McClendon, the former Chief of Staff for the President of Texas A&M University, brought a wealth of strong relationships and connections with the TAMU- College Station campus to the Galveston campus. His first task upon joining the Galveston campus was to familiarize himself with the new Campus Emergency plan so that he could advise Dr. Loftin in the case of a crisis (Interviewee #10, personal communication, 9-8-11) (Interviewee #11, personal communication, 9-9-11).

On June 6, 2008, tragedy struck TAMUG. The Cynthia Woods, a small sailboat carrying four students and two staff safety officers, capsized while competing in a regatta running from Galveston to Vera Cruz, Mexico. One of the safety officers died in the accident, and the other safety officer and four students spent 26 hours in the Gulf waters before being rescued by the U.S. Coast Guard (Associated Press, 2008). The national press swarmed to the campus. Although the crisis management plan only provided limited guidance in such a scenario, the administration gained extensive experience in dealing with the media. This was particularly true of the relatively new Director of Communications, Karen Bigley, who already had a background in crisis communications but was new to working in higher education. The Cynthia Woods tragedy enabled her to become familiar with the administrators, build trust, and really distinguish herself as being effective in crisis (Interviewee #5, personal communication, 7-29-11).

The Storm Approaches

Hurricane Ike entered the Gulf of Mexico on Tuesday, September 9, 2008. The TAMUG Crisis Management Team had met just a few weeks prior in response to Hurricane Gustav, a category two hurricane that had threatened Galveston before eventually making landfall in Louisiana on September 1, 2008. As a result, even though the crisis management plan called for a convening of the TAMUG Crisis Management Team whenever a hurricane entered the Gulf, Dr. Brad McGonagle, Assistant Vice President for Administration, felt that another meeting was not necessary as the semester had just started, and everyone was extremely busy. All of the key players had been

identified, the emergency communication had been tested, and key details of the crisis management plan had been discussed only two weeks prior at the Gustav meetings (Interviewee #3, personal communication, 7-20-11). Furthermore, most projections had Hurricane Ike going northward into Florida. Instead Dr. McGonagle contacted the team through email and notified them that he was watching the storm and would contact them if a meeting was scheduled (Interviewee #3, personal communication, 7-20-11).

The next morning, Dr. McGonagle sent out another update indicating that Hurricane Ike had continued on a track toward Galveston overnight, but the projections had changed drastically. Some projections still had the storm turning north into Florida while others projected the storm turning south and going into Mexico. The entire Gulf Coast fell into the projected path, and it would be hours before the next hurricane plane reported back. Still, Dr. McGonagle continued monitoring the storm's progress and coordinating with the County Emergency Management Service and the City Emergency Management Office, dialing into the state teleconference through the emergency preparedness program on an hourly basis as the storm approached. He also instructed the Facilities Services staff to begin preparations for securing the campus in case an evacuation is called for (Interviewee #3, personal communication, 7-20-11). By noon, Dr. McGonagle felt it was time to call for the evacuation, but Dr. Loftin was not quite ready, preferring to wait until the latest hurricane report came out at 2:00 p.m.(Interviewee #3, personal communication, 7-20-11) (Interviewee #11, personal communication, 9-9-11).

That afternoon, many of the TAMUG Crisis Management Team were together at a Multicultural Reception welcoming students in the student center when the 2:00 pm hurricane report came out. Dr. Loftin; Dr. Rodney McClendon; Dr. Brad McGonagle; Karen Bigley; Grant Shallenberger, Assistant Vice President of Student Affairs and Auxiliary Services; Dr. Donna Lang, Associate Vice President of Enrollment Management; and Todd Sutherland, Director of Student Life were all gathered in the reception room when Shelly Fordyce, Assistant Director of Student Activities entered the room to notify the group that the latest update was posted. The entire group excused themselves to Grant Shallenberger's office, the closest office to the reception, only to find Galveston sitting directly in the new hurricane path projection (Interviewee #4, personal communication, 7-27-11). Dr. Loftin described the situation:

That morning I was looking at data showing the largest enrollment of students on campus, 9% over the previous Fall, so I was feeling pretty good. As the day went on, I was feeling less good as each model update was showing a progressive trend of the storm track toward Galveston. We had a social event at 2:00 that afternoon. At 2:30 pm, I gathered my senior staff who were at the event, and we talked about it, and at 2:30 we decided to close the campus as of 5:00 that day. Very serious event based on what we were seeing at that time, and so the right thing to do was get the students away, get the staff out, and kind of shut things down and get ourselves away as well. So we closed campus at 1700, 5:00 pm. (Appendix C)

With Dr. Loftin and the Campus Executive Team closing the campus and calling for evacuation, the hurricane response plan was activated. Communication via the website and text message alert system immediately went out to faculty, staff, and students stating that no classes would be held beyond 5:00 pm. Although a few faculty in the midst of class continued on, most cancelled classes immediately. The word spread rapidly as students contacted their friends and classmates. Many students helped with

securing the campus before departing themselves. Sailing and rowing team members were summoned to transport their competitive and practice boats to a warehouse and secured their facilities next to the slowly rising waterline. Lifeguards sank pool furniture into the pool to prevent high winds from turning them into projectiles (Interviewee #2, personal communication, 7-22-11). Community Leaders walked up and down hallways reiterating university instructions and helping students pack up when necessary. On campus residents were directed to clean out their refrigerators, remove everything from their balconies, and complete an on-line registration form detailing where they planned to evacuate to, in what vehicle and with whom. Anyone who did not have transportation was instructed to contact the Office of Residence life immediately. By 7:30 pm, a bus from TAMU- College Station pulled out from the Galveston campus, transporting the last ten to fifteen students who had no transportation to College Station. They were the last students to leave campus (Interviewee #2, personal communication, 7-22-11).

The faculty and staff had been busy as well. As soon as the decision to evacuate was made, individual departments initiated the process they had used multiple times before to great success. Karen Bigley as Director Communications immediately departed for TAMU- College Station to set up her base of communications (Interviewee #4, personal communication, 7-27-11). Also for the purpose of communications, the website was transferred to a server located at TAMU- College Station while the Galveston servers were loaded into a vehicle and driven to College Station as well (Interviewee #5, personal communication, 7-29-11). Residence Life contacted TAMU- College Station's Transportation Services to summon the bus that transported those

students who had no transportation to College Station. Food Service contacted their contracted food provider to send a freezer truck so all of the food in the freezer could be relocated to a safe location off of the island (Interviewee #2, personal communication, 7-22-11). Facilities Services began their process of collecting important files, documents, data, specimens, cash, and equipment from Human Resources, Financial Management Services, Admission and Records and other pre-identified locations for storage onto the Texas Clipper to safely ride out the storm (Interviewee #3, personal communication, 7-20-11). Researchers filled emergency generators with gas in case of power outages, and offices lifted computers off of floors in case of flooding. The evacuation went smoothly as it had so many times before with many employees being veterans of over a dozen evacuations. In fact, post hurricane inspectors would later comment on the incredible job done by students, staff, and faculty in protecting all computer and other electronic equipment at the campus (Loftin, 2009). Once their on-campus responsibilities were complete, the employees also left campus to secure their own homes and evacuate their families.

The familiarity and experience did not work well for all. After the horrendous evacuation and traffic for Hurricane Rita, many stated they were not going to evacuate (Interviewee #3, personal communication, 7-20-11). The widely varying projected paths had also caused the call for evacuation to occur much later which made it more difficult to get personal homes secure, especially for those who had relatives nearby for whom they were responsible. Others had evacuated so many times without an actual hurricane strike that they were reluctant to fully follow the plan:

Interviewee: Okay, well, for Ike normally when one is getting ready for a hurricane okay, we have a hurricane plan. And our hurricane plan is written out. I can get you a copy of that.

Interviewer: Okay.

Interviewee: And we box up applicant documents. We box up all our documents. We take certain CPU's and put them in cars to take home. We do all these things. So, it's a whole plan written down. When Hurricane Ike started coming, I didn't think it was going to be bad. So, anyways, we were staying and a day before we left, [Omitted] said, "No, we're leaving. You too, come on, I got you a room in College Station." Because it always so hard then at the last minute. So, we got rooms in College Station. So, at that time, right before we decided that the... TAMUG decided they were going to make the evacuation and all those things. And for Ike surprisingly, I didn't think it was going to be that bad and I decided to pack nothing. We took CPU's because that was the data that could never be recovered.

Interviewer: And those CPU's and the other documents that you bring, that's something that that was done historically on every evacuation?

Interviewee: Every evacuation until Ike. With Ike, I decided this isn't going to be bad and we're going to leave them. Okay, because it was coming at you, we had just packed for Rita and Katrina or whatever, there's a million other ones and it's a lot of work to pack this office up, okay. And my team wanted to pack up, actually a lot of them did. But it's a work interruption of about a week to put everything up and pack it up. Plus our documents are gone from here until we get them back. It's just really hard but doable. So, we always take my CPU. [Omitted] is responsible for taking mine and his because we have – if we had to set up shop at another place, it would take our CPU's to do it. And [Omitted] takes hers along to, okay. Normally, we don't take hers but we did this time for Ike. Everybody else took their CPU's and we put them in the back room. But aside from that as far as preparations for Ike, we walked away. Normally, we do for all the plans and I'll give you a copy of that plan. I'll have to find it. And we can certainly, we get all the emergency numbers on that. We did all that. We just didn't pack the office like we normally do (Interviewee #7, personal communication, 8-9-11).

By 6:30 am, Thursday, September 11, 2008 TAMUG had relocated its web services and electronic mail to TAMU- College Station, some 150 miles inland. At 7:30 am, the Texas Clipper II, a 523 foot vessel, was relocated from the campus dock across

the Galveston Ship channel to Pier 40. This new location provided much greater protection from the impending storm. The four crew members stayed with the ship throughout the storm. At the same time, the campus powered down the physical plant leaving only overhead lights shining on the campus. At 8:00 am, the Galveston Communications Center was opened in College Station. At noon the sewer plant was shut down to prevent possible problems with salt water intake, and shortly thereafter the water lines were closed restricting all water from the campus (personal communication, September 10, 2008). By 12:30 pm, the Galveston campuses were secure with all remaining faculty, staff and students evacuated. Four police officers remained at the campus until the rising waters forced them to the City of Galveston Command Center (Loftin, 2009).

Hurricane Ike Strikes Galveston

At 2:10 am, Saturday, September 13, Hurricane Ike slammed into Galveston. The velocity of the wind at its eye wall categorized it as a high Category 2 hurricane, but the sheer size of the storm pushed a storm surge of water typical of a much stronger storm. Only hours prior to the storm landing, the storm moved slightly northward in its path, resulting in the eye passing directly over the city of Galveston. This last minute change in direction resulted in the Bolivar Peninsula, just north of Galveston, receiving the strongest of the storm's winds as well as a reported surge of up to twenty feet high (Johnson, 2010). The seawall in Galveston initially protected the city from the eleven foot surge preceding the eye wall, but as the bays and inlets around the city swelled with water from the Gulf, the city streets filled with water, flooding 75% of the city (Spinner,

2010). Most off campus student, staff, and faculty housing on the island was damaged and rendered unlivable (Loftin, 2009). In the December after action report, Loftin states:

Ike was a rather odd storm. We normally measure storm strength by wind velocities, and under those measurements, Ike was a Category II storm. And there have been quite a few Category II storms that have passed over or very close to Galveston. So at first people weren't too worried about Ike, because it wasn't much of a storm, but if you saw the picture I gave you earlier how big this storm was...it was a very, very large storm. The extent was equal to what Category IV and V storms typically exhibit. And that size contributed to a much larger than a Category II sized storm surge. Actually we were very lucky in Galveston. The storm surge in Galveston was eleven feet, twelve feet max, but across Galveston Bay to the east of Boliver toward Gilchrist, it was well over fifteen feet. Some recorded almost twenty feet. So had the storm gone ashore in Freeport, not in Galveston itself, we would have had much more water damage than we did and we would have had major water intrusion almost certainly into our buildings on Pelican Island. So again, it was a bad storm. Galveston was hurt very badly, but it could have been much worse by a forty mile shift of the landfall of the storm (Appendix C).

Of the three campuses of TAMUG, the Fort Crockett campus, situated at one of the highest points on the island and well behind the seawall, fared the best. The campus, which housed many faculty offices and was home for much of the campus research operations, was virtually untouched with only a few broken windows and vent stacks dislodged (Loftin, 2009). The Teichman campus, housed on the waterfront campus on the other side of the island, suffered a much different result. The Rowing Crew building and Texas Engineering Extension Service building suffered major damage from the storm surge with both buildings' outer walls being breached by debris carried by the storm surge (Loftin, 2009). The Benison Place Sailing Center also suffered major damage, and nearly all sailboats and rowing shells were destroyed or severely damaged (Loftin, 2009). The campus was nearly a total loss.

The Mitchell campus on Pelican Island also suffered mixed results. Although the storm surge covered most of the campus grounds and destroyed any student vehicles left on the campus, the flooding did not penetrate any of the campus buildings. Four major buildings on the Mitchell campus suffered damage to roofs and windows. The sewer plant was damaged as well. The most extensive damage to the campus was along the waterfront where significant damage was done to the Small Boat Basin and Texas Clipper Dock, which also suffered major silting. The Wetlands Center suffered from extensive shoreline erosion, and huge piles of debris were strewn all over campus. All of the teaching and training vessels that were unable to be relocated before the storm were lost, with many ending up on the Galveston Causeway several miles away (Loftin, 2009). The Texas Clipper II, in its more secure berthing across the ship channel safely rode out the storm, although on at least one occasion was nearly thrown onto the dock by the powerful winds and waves (Interviewee #4, personal communication, 7-27-11). Lastly, the sole entrance road leading to campus buckled under the storm's assault allowing access only by foot (Interviewee #3, personal communication, 7-20-11).

The Crisis Response Initial Meeting

By the next morning, many were anxious to assess the damage to the campus and city in general. The governor had declared a no fly zone over the area, preventing an aerial surveillance of the island, and the main causeway leading onto the island was nearly completely blocked to traffic. Despite the hurdles, by daylight reports began to filter in to the executive team (Interviewee #4, personal communication, 7-27-11). The four employees who had ridden out the storm on the Texas Clipper II were able to see

the campus from their location across the ship channel, and even though many of the roads of Galveston were impassible due to large piles of debris, the campus police were able to navigate from the city's storm headquarters to the buckled road to walk onto the campus (Interviewee #4, personal communication, 7-27-11). Dr. Brad McGonagle, who had responsibility over the police and facilities service departments, had weathered the storm about forty miles inland, and with the assistance of the TAMUG chief of police, Sam Martinez, he was able to get back on campus and survey the damage to report to the rest of the executive team with the use of a campus-issued satellite phone (Interviewee #3, personal communication, 7-20-11).

In College Station, President Loftin requested an emergency meeting for 4:00 pm with the senior leadership of Galveston and the TAMU- College Station campuses in the President's Conference room in 1030 Rudder Tower (A AA Werlinger & Associates, 2008). With the exception of Brad McGonagle, who was at the Galveston campus, Rodney McClendon, who had evacuated to the East Coast for a funeral and was having difficulty getting a flight back to Texas, and Dr. Gil Rowe, Chief Academic Officer who had been in New Mexico for a week prior to the storm, all of TAMUG's executive team were in attendance. Both Drs. McGonagle and McClendon were able to teleconference into the meeting (Interviewee #3, personal communication, 7-20-11, Interviewee #10, personal communication, 9-8-11). Dr. Elsa Murano, President of Texas A&M University, had assembled much of her senior staff as well including Dr. Russell Cross, Executive Vice President for Operations and Chief of Staff; General Joe Weber, Vice President of Student Affairs; Dr. Dave Parrott, Executive Vice President of Student

Affairs and Dean of Students; Dr. Martyn Gunn, Speaker of Faculty Senate; Mr. John Crawford, Associate Vice President and Controller; General Van Alstyne, Corps Commandant; and others (Interviewee #11, personal communication, 9-9-11). In all there were perhaps 25 -30 people in the room, and many of the individuals in attendance had been directly involved in the development of the white papers outlining the TAMUG Business Continuity plan (Interviewee #1, personal communication, 7-18-11).

The first order of business for the meeting was to review the damage reports from Dr. Brad McGonagle and others concerning the status of the campus as well as the city of Galveston. Dr. McGonagle argued that although the damage to the campus was extensive, no major classroom buildings were significantly damaged, and with the assistance of Vaughn Construction, a construction group that already had heavy equipment on site for the construction of the new Ocean and Coastal Sciences building, he felt strongly that campus could be cleaned up enough for classes to resume within three weeks (Interviewee #3, personal communication, 7-20-11). Furthermore, contracts signed well in advance of the disaster with Munters International for Disaster Recovery would provide generators and dehumidifiers for each of the buildings (although the university would later discover that Munters was unable to deliver on any of their contracted obligations) (Interviewee #3, personal communication, 7-20-11). This recommendation conflicted with the two week deadline agreed upon in the TAMUG Business Continuity Plan put in place in the previous year (Emergency Short-Term and Long-Term Recovery and Business Continuity Plan, 2007). Furthermore, reports coming in from the City of Galveston Emergency Center described a bleak situation

throughout the city. Major flooding rendered much of the off campus student housing, including the two privatized entities located across the street from campus where nearly 300 of the students lived, uninhabitable for an extended amount of time. Once the information from Galveston was in and fully discussed, each individual's opinion was solicited. Nearly unanimously by 4:30 pm, the decision was made to relocate the Galveston campus operations to TAMU- College Station and fully activate the TAMUG Business Continuity Plan (Appendix F).

Once the decision was made, President Murano put her Chief of Staff, Dr. Russell Cross, in charge and instructed the team to do whatever was necessary to ensure that the Galveston campus survived and continued its semester (Interviewee #10, personal communication, 9-8-11). A discussion of the TAMUG Business Continuity Plan commenced. There was a great deal of conversation concerning how many students would relocate to TAMU- College Station as there was no previous data upon which to base an estimation. Like many universities across the country, TAMU- College Station had welcomed evacuees from the schools affected from Katrina the year prior, but the number had been only around 100 students (Interviewee #1, personal communication, 7-18-11). This crisis involved 1,777 students as well as staff and faculty who much more closely affiliated with the main campus and each other, and the anticipated number was a critical element is how so many issues would be addressed (Loftin, 2009). The Galveston members of the meeting were asked to estimate how many students would relocate (Interviewee #1, personal communication, 7-18-11). Estimates from 40 to 65 percent were projected until eventually the committee settled on

using 60 percent of the 1777 students for planning purposes (Interviewee #1, personal communication, 7-18-11). It wasn't determined until much later that the actual number would be much higher – 1,1612 students of the 1,777 or 91% of the enrollment (Loftin, 2009).

As the group dove into the planning of the relocation, the plan called for a pairing of a Galveston staff counterpart with a TAMU- College Station staff counterpart. The meeting rapidly deteriorated into multiple discussions of the thousands of details needing to be addressed when General Van Alstyne of the TAMU- College Station campus suggested the development of a set of guiding principles to bring the discussion back to a strategic level. As one participant explains:

Because instead of this big thing you wanted to drill down and the “Oh my gosh how are we going to handle this” and it was just, it was all over but it was so obvious that this was just going to be an all out push on so many areas of problem solving that we are just going to take lots of people. And I remember being in there for a good while maybe 45 minutes or an hour into that process and they started to develop – “This is our structure- There’s going to be a morning meeting at 8:00 A.M every morning that will be the higher level coordination group,” every kind of communication issues have to go to that table. You know the structure was important but General Van Alstyne was the commandant of the Corps at that time and I love General Van Alstyne, because he’s huge and his voice has this like power house impact to it.

And I remember that General Alstyne stopped the whole meeting and it got really quiet and I thought this was one of the most significant things that happened and he stopped the meeting and he said, he goes “There’s too many different threats, there’s too many different issues,” he said “We have to stop right now and define our guiding principles” and I’ve put those in all of the handouts and the things I’ve used, because they really came down to the three guiding principles.

But from watching the process enroll from that day through the next three or four months we went back to those guiding principles over and over and over again whenever there was conflict and there were multiple conflicts whether it was the -- how the parking tag worked and the thing or whether the students could get a shot in the health center. It was that kind of thing that you kept going back, “No

that's not what we agreed on. These are the guiding principles", ... But still at the time that you are having to make decisions very fast, I know we made decisions based on that agreement that if you're a staff member we said that can't cost you more in this process in expense. We want you to be working, and we need you to be doing these things so you can't suddenly realize I have another set of costs but that time from General Van Alstyne I thought was just really pivotal. It strikes me over and over again...(Interviewee #1, personal communication, 7-18-11).

As discussion ensued, eventually three guiding principles were established. The first and foremost would be a commitment to maintain the highest quality academic experience for TAMUG students. Many schools after Katrina had cancelled their semesters much to their detriment, but if TAMUG was going to continue their semester, it was plainly stated that the school owed it to the students to deliver the education at as high a standard as academically possible under the circumstances (Interviewee #11, personal communication, 9-9-11).

The second principle recommended maintaining the integrity of the TAMUG classes. The semester had already started and students had progressed in their various classes. Breaking them up and dispersing them into the various TAMU- College Station courses and expecting them to succeed would have been problematic. The crisis and relocation already had great potential for negatively impacting the students, and the specialization of many of the Galveston courses did not facilitate an easy transition in to the TAMU- College Station courses. This was a major decision as it contradicted the Business Continuity Plan which called for placing TAMUG students in as many TAMU- College Station classes as possible. One participant stated, "Part of what we talked about very early on was the courses in Galveston—there's a lot of the average everyday courses, but there are also a lot that are very specific. And so we talked about how

important it was that those continue, because that's obviously why students have chosen to go to Galveston. That kind of drove the decision that we would keep our students together and not put them in an English class up here or a history class or whatever" (Interviewee #4, personal communication, 7-27-11).

The third principle proposed a cost neutral experience. The university would ideally make it financially seamless to the 1200 estimated students and undetermined number of faculty/staff to relocate for an undetermined-to-date time period. The concept was founded on the principles of ethical behavior – the university did not want to re-victimize students, many who had lost all of their belongings in the flooding- as well as an enticement to retain students at TAMUG. As one participant said:

It was driven by two things in my opinion, it was driven by two things. One is the thought it was the right thing to do which I agree. I'm not sure I would have the nerve to say it aloud okay. I didn't recommend it. I didn't stick my head out that far. I mean that was ballsy. He didn't have the resources to pull it off, it was pure bluff. But when you talk about guiding principles, our guiding principles, that was one of the critical guiding principles that you and I used as we went forward and it was a damn good one.

I definitely would put it in plan again and the correlating part of that was because of limitations on refunds the decision to give the waiver to credit all those who would come back the next semester, My opinion is one, we came back in the spring and when we came back, with those numbers we came back because of that decision. That 9% that didn't move to College Station mostly came back in January because of that factor, I confess, and that was a corollary to the cost neutral piece. It wasn't really cost neutral because it really addressed the students that didn't come but that made it cost neutral for them but that's the ethical piece. We didn't take half their money and run. I mean legally we're supposed to take half their money and run for the 9% of our students, but if we do, and most of them may not come back. I never saw the final number personally. My impression was that almost all of them came back in the spring, given our normal attrition from fall to spring is going to occur anyway of the ones that went up there...Not after that of course, but that was just the practical way to do it and besides we've been assholes to do that but I think we didn't do stupid things but I think those two decisions around cost with the second one just

helped us when we returned. But the first one was really a guiding principle that came up right in those first meetings. The first time we met around the table with everybody that I sit there and I think I was in the if not the first day the second day that I was sitting in the back listening the cost neutral was on the table as a guiding principle and it drove so much of what we did. (Interviewee #5, personal communication, 7-29-11)

This principle in particular had far-reaching implications. It was determined at the meeting to give students one of three options. The first option was to follow the university's standard refund policy and refund 50% of their tuition and fees to any student who wanted to withdraw as dictated by the academic catalog based on the day the campus evacuated. The second option was for the student to withdraw from the current semester and transfer all of their funds to be used in the following Spring semester. This was a strategy that was utilized by some of the schools hit by hurricanes in the previous year that had demonstrated some effectiveness in retaining students (Interviewee #11, personal communication, 9-9-11). The third option for the student was relocate to TAMU- College Station and continue their classes with a commitment from the university to keep their expenses roughly the same. "We wanted to make sure the students understood and the parents understood that even though it might be more expensive for housing, for example, here in College Station than it was in Galveston, there would be no new cost to the student" (Interviewee #11, personal communication, 9-9-11).

Once the guiding principles were set, the structure for future meetings was formalized. Using the TAMUG Business Continuity Plan as a roadmap, the operation was broken into seven major areas: Evacuation, Relocation of Students, Relocation of Faculty and Staff, Student Services, Providing TAMUG Students Classes in TAMU-

College Station, Billing and Fees at TAMU- College Station, and Financial Services for TAMU Galveston (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 16, 2008). Each major area had a Galveston lead and a TAMU- College Station lead as well as a series of major issues to address in their respective area. While addressing these major issues, other operational issues were identified and addressed as well while reporting back to the main group which initially met twice a day.

I just remembered that Dr. Cross would convene these large meetings; that is the one thing I remember. It was like-, because the plan called for pairs. Somebody for Galveston and somebody from College Station and you work together on office space for faculty or classroom space, et cetera. So you had these pairs of the people and it was a great plan so I commend all of those who created the plan. So you had the person there who knew what Galveston's needs would and should be in a situation like that, and then you had the person on this end who should be able to garner the resources and so we would have this large meetings and literally Dr. Cross is facilitating it and go around the room and just kind of go down the sub-committee or the people who are paired up; where are we with this, where are we with that and then of course all of these people who were the leads had a team of folks who were out getting it done and I mean literally- you talk about BlackBerrys, I don't even know if the iPhones were really rolling there, but definitely BlackBerrys.

I mean people would be getting updates continuously throughout the meeting, but pretty much those meetings were really updates then they would take place once or twice a day. I think initially it was twice and then as we move further into the situation it became once. A lot of times people were in and out, because we needed to be out in the field. It was nice to sit here and give you an update, but we needed to get the work done. So those were the meetings from almost like a policy group, but then we had operational meetings. I mean my gosh- you, me, Cassandra, Grant, all of us. Then we would have our own operational meetings as to what we needed to get done et cetera and who do we need to call upon to help us get it done from main campus or the community, because the community was definitely a critical part of this. (Interviewee #10, personal communication, 9-8-11).

The meeting concluded with the assignment of a facilities assessment team to travel to Galveston to assess any structural damage to the TAMUG campus assets with a goal of presenting a cost analysis by close of business on Thursday, September 18th. The Vaughn Construction representatives would assist the team on site (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 16, 2008). The last order of business was to determine when Galveston classes would restart in College Station. After much discussion, the goal set forth in the TAMUG Business Continuity Plan of restarting classes within two weeks of the evacuation was upheld. Classes were scheduled to begin in College Station on Wednesday, September 24th with TAMUG student registration and orientation to be held the two days prior (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 16, 2008). A campus of nearly 2,000 students and 200 faculty and staff would be relocated, and classes resumed in just ten days.

That evening Dr. Loftin, Karen Bigley and Jason Cook, TAMU- College Station Vice President for Marketing and Communications, met to formulate the communication plan. The website was updated to notify students that there is extensive damage to the campus and that the Campus Executive Team was meeting to determine the next course of action. The webpage was stripped of graphics to allow easier loading and better access for mobile devices. The E-2 text messaging system was used as well to communicate to those who were in the many areas of Texas who still did not have power. The decision to relocate was not shared at that time to allow some of the

logistics to be determined in the following days. “That was the announcement that we’re going to be closed for a few days until we can reopen. Once we know more, we’re going to get it out. We were at that point, we just wanted to be able to tell people that yes we are going to continue the semester. We don’t know what that’s going to look like yet and to reassure people that campus was at least relatively okay” (Interviewee #4, personal communication, 7-27-11).

The Next Eight Days

The days following the initial meeting were characterized by long hours and multi-level problem solving. More Galveston employees began arriving in College Station with many still reeling from the loss of their homes and possessions. Fran Vargas, a computer and information services employee who had been on the team that originally moved the Galveston servers to College Station, lost everything in the storm with the exception of what she had taken with her in one suitcase (Alexander & Rizvi, 2008). Dr. Donna Lang, who had come to College Station with her children and mother in the days before the storm, had six feet of water in her house. “The only thing that was left in my house that was salvageable was whatever was in the tops of closets. Think about what you have in the tops of your closets” (personal communication, November 1, 2008). Regardless of their personal loss, the employees dove into the problem at hand finding some therapy in the long hours working with close friends enduring similar circumstances. The employees supported each other in many ways.

We had a meeting, like where we actually said there was a meeting, every day. We had some problems with transportation and where people were housed. So, I had an accountability meeting every day at around 8:30. I expected people to try to get there about 8:30 because parking and traffic were a little different and

many times I have to go find people because they were in their car. Like one time one day Audrey got hurt. She didn't know where she lived and that was an ordeal. I mean, there are different things that happened. Or somebody's car didn't start and they didn't have a phone in their apartment and their cell phone wasn't charged and so I go over there, banged their door, "Where are you?" "Why aren't you at work?" just to keep track of each other. But basically, we had to meet a lot and we stayed together. Here, they don't care where I am. There, they wanted to know where I was at every minute (Interviewee #7, personal communication, 8-9-11).

The various teams were diligently working on their assignments and identifying other issues in their domain. The evacuation team was focused on developing a method to best communicate with students collectively as well as to develop a survey for the students to assess their plans and needs. Those students who did not complete the survey were contacted by phone. A telephone hotline with multiple lines was set up to answer questions. Questions and answers were added to the online Frequently Asked Question list. Student leaders from the Student Government Association and Community Leaders from the Galveston residence halls were brought in to assist in contacting students and manning the phones. Contact was made with every student (Interviewee #7, personal communication, 8-9-11). All faculty members were contacted to confirm their safety and ability to continue to the semester. The one faculty member who was not able to be reached was later found to have had a medical emergency during the storm and was medically evacuated to San Antonio.

As we called the faculty, the commitment to continue was amazing. Remember the video of the house burning in the historic district surrounded by water that made it on all the news channels on the day after the storm? That house belonged to one of our adjunct professors who has a successful law practice and teaches two courses for us each semester. What does that pay, like maybe a \$1000 or so? How easy would it have been for him to say forget it, I have too much on my plate right now, I can't do it. But he didn't. With the exception of the one instructor who's health prevented him from continuing, every other faculty

member continued on with their courses (Interviewee #1, personal communication, 7-18-11).

The staff were more difficult to contact as many of the service employees lived in the areas most impacted by the flooding (Interviewee #3, personal communication, 7-20-11). However, through well-established phone trees updated prior to the storm season through the campus emergency plan, contact was successfully achieved with each employee, communicating that they each still had a job and that they needed to call in each day for instructions (Interviewee #2, personal communication, 7-22-11). At the same time, plans were developed to relocate scientific equipment from the Fort Crocket campus and Human Resource records from their storage point on the ship (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 19, 2008). As detailed in the TAMUG Business Continuity Plan, arrangements were quickly made to relocate the ship back to its dock on the Mitchell campus where it had the ability to generate power for much of the campus. Unfortunately, it was soon discovered that the storm had silted in the dock, preventing the ship from being returned to its dock (Loftin, 2009).

The team assigned to the relocation of the students were focused on a number of issues that were critical to the relocation of the students. The team decided to adapt the orientation program that was used with the Katrina refugees to provide students a one stop shop to get all of the necessary information about the campus and transition. As the Galveston student information was already readily available in the Texas A&M University Student Information Management System (SIMS), the ability to convert Galveston student identification cards, meal plans and parking permits to the appropriate

TAMU- College Station documents was fairly seamless. A much greater challenge existed in providing housing. At the time of the storm, slightly over 600 students of the nearly 1800 students lived in campus housing with an additional 100 freshman cadets living on board the ship in a living learning community. Another 350 students lived in privatized housing located across the street from the campus. The remaining 700 students lived in the Galveston community. When the number of students coming to TAMU- College Station grew from an estimated 60-65% to nearly 90%, the challenge of providing housing grew as well. Both TAMU- College Station and Blinn College had enjoyed record enrollments that Fall semester, resulting in less available housing for the transplanted Galveston students. On campus housing at TAMU- College Station had only 285 beds available, many of these were cots in study rooms. An additional 178 beds were available for cadets in the Quad, and 25 beds were available for International students in the University Apartments. While the Galveston housing office pulled students from their on campus housing rosters to assign them to the TAMU- College Station on campus beds, the Off Campus Housing office and University Real Estate office scrambled to locate housing for those students for whom there was no space on campus. Less than ten days was an extremely short time to identify available space in the community and develop contracts through the university under the cost neutral principle. Luckily, Melrose Place, an apartment complex that was finished only a few weeks before the Fall semester started, was mostly vacant providing an additional 189 beds. Shortly thereafter another 300 beds were secured in other various apartment complexes and rental properties in the community. With almost 240 offers from

community residents willing to house a Galveston student for the semester resulting from an email plea from President Murano to the campus community, the university would make progress toward the goal, but the goal kept changing (Murano email, September 16, 2008). With every step forward came a step back as the numbers of students indicating they were relocating to TAMU- College Station continued to grow. It did not appear the university would achieve their goal of housing all students who decided to relocate when on the day of the orientation, the owner of the Plaza hotel, a hotel that had been mostly off line but was still serviceable, offered to open to the Galveston students and provide an additional 300 beds. In addition, the owner of the Plaza offered extra furniture to supplement the residential furniture that TAMU- College Station could provide to furnish the bedrooms of the newly rented properties. In the end, the university did not have the 1572 furnished rooms that were hoped for but it was extremely close, and as it turned out, more than sufficient housing was identified.

The third team was focused on the relocation of faculty and staff. The first step was the assessment of which faculty and staff would be relocating to TAMU- College Station. Many of the faculty lived on the mainland and with the exception of a shortage of electricity following the storm, their houses were perfectly habitable. The conversion of their current classes to 3 hour once a week courses or even distance only courses were explored and offered to interested faculty. Faculty who would drive up for a day or perhaps two days were offered mileage and hotel room reimbursement rather than semester long accommodations. For those faculty and staff that were needed throughout the week or had homes affected by the storm, the Real Estate office secured 92 rental

units for the semester. As of September 19th, 65 of the faculty had indicated that they were able to teach the following Wednesday with 43 requiring office space in TAMU-College Station. Nine TAMUG faculty members indicated a need for research space with an additional six others already securing support with collaborators in TAMU-College Station (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 19, 2008). International faculty with VISA implications were assessed and offered assistance in resolving any issues. A meeting was scheduled for Friday, September 20 at 11:00 am to further answer questions, identify issues, take care of parking and identification cards, and offer Employee Assistance Services (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 17, 2008). The Faculty and Lab Office space was much more difficult as described by one:

The senior group at A&M jumped right in. The secondary group, the deans, were not helpful; they were counter helpful. So the administrative group was all on board but the deans have a, you know, had a much more territorial view of their facilities. They have no central classroom assignment capability up there. It's just all little fiefdoms and many things were done by, you know, through friendships. So we had a perfectly great relationship with physics because I was a good friend- I went to college with the assistant department head so he and I figured things out. Chemistry was a problem until it was declared to be a non-problem by the dean and that was a relationship that Bowen and to some extent myself had with John Hooton, who basically informed the staff member who was a long time staff member that was saying, "well if we do that then I'm going to quit." John just said, "Bye bye. Go away." And the guy didn't quit and suddenly everything was wonderful. And after that, everything was not just tolerating, they were really enjoying the whole thing. So it was a fight over nothing as it turned out. The- what was you know, xeroxing was a ridiculous problem. They couldn't seem to figure out anyway for us to xerox up there, you know. We were instructed to go to an off-campus Xerox place. That was bizarre. (Interviewee #8, personal communication, 8-10-11).

The team responsible for student services for the Galveston students were focused on identifying necessary services for those students and eliminating obstacles to receiving them. With student medical services, TAMU- College Station was able to provide 100% access to the A. P. Beutal Health Center and its services. In the Counseling and Career services, Galveston relocated their Counseling and Career services staff to TAMU- College Station for three days of each week so a supportive role was determined to be most effective. Due to the specialized nature of the Galveston majors, the Galveston career services staff was best equipped to advise students on career services issues, but the use of TAMU- College Station facilities and support for students seeking counseling in dealing with the stress and trauma of relocation was useful to the students. In supporting students with disabilities, the difficulty in securing documentation for academic accommodations was overcome by the agreement to accept any student “on their word” that they had a disability and needed accommodations (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 17, 2008). Lastly, TAMU- College Station Financial Aid was prepared to handle all Galveston students, having access to TAMUG systems and loan providers. The team also recommended that a pool of funds (\$200,000) be established to provide direct assistance to TAMUG students, as needed, which similarly occurred for students who were evacuated for Hurricane Katrina (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 17, 2008).

Another team was working diligently to provide TAMUG students classes in College Station. The decision was made to archive Galveston student enrollment as of the September 15th for reporting purposes to Austin for state funding. Working through the TAMUG class schedule, the team did their best to keep TAMUG class sections and instructors together as well as to ensure that the 120 students scheduled to graduate in December were provided the proper courses necessary to successfully graduate on time (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 19, 2008). There were several challenges. For one, the number of students that classes were being scheduled for kept increasing daily.

Our estimate before that storm ever hit was that we could retain 60 percent of our students. 60 to 65 percent was we thought if we start the fall semester here and then we really went into a bad hit with all the students that have stuff going on and this and that and have to relocate, we'll take more than half because our students are Aggies. They are going to come with us and they're going to be solid. We're going to go 60, so you know we can't go into that 60, 65 maybe range or when you get up there, we took 92, there are a whole lot of things I would have done different with 92 percent than I did had in my head with 60. But you didn't know any of that until much later and then once you are too far down you couldn't change your model, because you had already started down that train track. So the 60, 65 percent was way off.

Well so if I go back on my end of the world as far as running the classes on the academic side, the white paper that I wrote two years earlier was; step 1 would be to contact all the faculty and see who I would have the College Station to teach. And then, I would use those faculty members and I would build a new schedule for the fall semester that would overlap College Station in any places where we had overlap.

So if you had an English with 10 seats that matched our English class or Physics class over here; or things that we were parallel on I'd use all of those to our advantage and then, I would use our faculty to recreate all the specialty courses that wouldn't be taught in College Station and I would build a new schedule. And then, when the students were arriving in College Station we would then register them kind of what they have done with Katrina students with the New Orleans, but they only had a 100 of those people.

So that was a piece of cake to register and put them in but in my head I'm thinking I need a new schedule for 60 percent and I need to build it for about this number. Well, wrong, you got 92 percent on that, so that was a very, very big change in what, how we implemented the system. And then, like I said this, maintain the relationship between the faculty member and the student really changed things, because that meant I couldn't re-attach this student from this English faculty member to this English section. I had to keep them with the original faculty member.

So that then, became a scheduling model that every student had to have the same classes, but also, the same faculty member as they started out with when they left. So those two things were shifts that happened in that implementation process that our performance goals or our assumptions that we made before hand weren't on target. And now that we have done it once, I don't know how many students will do it again.

Well, what I ended up doing the model that I had developed during that white paper was I build a hurricane semester and so, I built a whole new semester and then, I started dropping the new classes and the faculty and people into the new semester and every time a student said "I'm coming." I'd pick them up out of the Galveston semester and I drop them into the hurricane semester. That model I don't know if I would have come up with in the speed if I didn't have it had developed during the white paper. So that was really huge for me in my area at least and that's what drove financial aid, that's what drove billing. All the other things that then allowed me to give you like pre-census and post-census, in all those kinds of things I got through ahead of time.

I think it was just the principles that were moving too fast and why I said you know the things that I went "Oh gosh! I would have done that different." You know like I said if I had this Galveston semester and I expected 60 percent of the students to come over here, so not knowing which 60 I would need to register them on the new semester. Well, if I was 92 percent I would have picked out the whole semester, drop them in there and then drop the ones that -- I would have rather dropped 8 percent, they've registered 92 percent; but I didn't get that at the time -- you know in hindsight it would have been so much easier to drop than to register. (Interviewee #1, personal communication, 7-18-11).

Further complicating the process was the discovery just days before students were scheduled to arrive of a computer glitch that coded TAMUG classes differently than

TAMU classes in the report used to build the courses. As it was described by team member:

I was doing information management systems and some of those kinds of things, we didn't know some things on a regular basis but like our one big scheduling failure going into one of the student assemblies was reporting resulted because of an error in the way a report was coded. You're like "Holy mackerel," it set us back like three and a half days. We lost three and a half days off of a computer report that had a bad coding error and that killed us and that's why the lines were backed up on the scheduling pace or we would have had some of that solved (Interviewee #1, personal communication, 7-18-11).

This glitch caused the team to ask for the start of classes to be pushed back at least one day and perhaps two, a request that Dr. Loftin eventually denied (Interviewee #5, personal communication, 7-29-11). This problem later created significant registration delays during the student orientations.

Yet another difficulty experienced by the team charged with developing the Galveston classes in College Station was the assignment of a class to a location. TAMU- College Station was experiencing record enrollment so the classroom and laboratory use was already incredibly high before the arrival of the Galveston students. A variety of course delivery methods were explored including distance education, TTVN, videoconferencing at the University of Texas Medical Branch in Galveston or Prairie View, and various hybrids of classroom and distance education, TAMU- College Station was extremely limited in the availability of appropriate classrooms. In addition, there was no central repository listing all of the classrooms available as classrooms and laboratories in most situations were generally managed through the various deans who were often reluctant to surrender classroom and laboratory space to classes outside of their college. This resulted in the necessity to look off campus for solutions.

Interviewee: I think we got help from the community churches, community type classrooms. We just got a lot of help from Texas A&M.

Interviewer: Particularly, one thing that jumps out is the strong organizational support we enjoyed from the community there. When you went through and developed the class roster and suddenly everybody was coming and you realized, “Okay now I need to go and setup the schedule. Where are they going to be.” What was the process for reaching out to the community and identifying – did the churches just come forward on their own or was there solicitation that went up to them and some of the different spaces that you used...

Interviewee: Well, TAMU has used some of those places before. So, they were aware that this is a possibility. Quite honestly, it was hard because College Station has a different model than we do in classroom assignment. And so, they were trying to help us. So, they wanted to do it but they weren’t doing it at the speed that we wanted to do it. So, we had to take different tactics and call a lot of places on our own. But we were never turned away. We did call some of the churches. We don’t have anywhere for this classroom, we need a place that seats 45 or 100 people for every Wednesday night with parking. And people said, “Yes”.

Interviewer: Was there any place besides the churches that were used?

Interviewee: Well, we used weird places that TAMU doesn’t normally use like Sbisa Hall or whatever it is. And we use different places that they don’t normally use – I don’t think we used the Bingo Hall but that was a consideration though at one time. But we used every available space that we could find on that campus and then in the community really. The problem was that they don’t use central ID for all of their classrooms, that everything is departmental and departments sometimes like to hide their classrooms. Like biology, it worked a lot better when Dr. Loftin said, “This is craziness. Let’s get Schwartz (Department Head of Marine Biology) up there to talk with their department head.” And once that happened, more classrooms opened up. But had we not had to go through some of the politics of College Station, which we will again, I’m sure, if we ever had to do that again. I really couldn’t handle them because we do it here and I don’t think it would have been an issue because when I would call around them, we were never refused. Now, Donna called College Station and said, “Can Galveston use these two rooms or can they have these labs?” And they would say, “No, we’ve already got them set up for labs at that time so they can’t.” And then at 4 o’ clock that day Donna would say, “I’m sorry, you need to move this. This has got to move.” I would just call myself and explain the situation and tell them that we would put the lab back the way they had originally had and they said, “Fine, no problem.” So, we got what we wanted but – it was a lot of work, the classroom schedule because this is a lot of problems.

Interviewer: But you think that the faculty, department heads interacting with them helped facilitated that...

Interviewee: Huge – when they went to their peers and said, “You need to have your faculty stand down. You’re going to have to share. You have to share with me, I’ve got people here.” And sometimes there weren’t very comfortable meetings for our department heads. I heard about some of them but all of them said, “We’re going to help. We are supportive.” And facilities helped with that some too. Facilities would go sometimes with the department head or whatever. We sat by the facilities people and they try to help us too. They can be very territorial there (Interviewee #7, personal communication, 8-9-11).

Eventually 563 new sections of TAMUG classes were taught in TAMU- College Station in the Fall of 2008 with 18 of those sections in the evenings or on Saturday mornings and an additional seven on Sundays. Only TAMUG faculty taught TAMUG students. Classes were located not only in the lecture classrooms and laboratory classrooms on the campus teaching inventory, but also in conference rooms, seminar rooms, off campus rooms. Non-traditional locations include A&M Methodist Church, St. Mary’s Catholic Church, Hillel Foundation, Wesleyan Foundation, Traditions and Calloway House private residence halls, Sbis Dining center, and Rudder Tower. In addition 19 sections were taught by TTVN from remote locations to TAMU- College Station as a convenience to the faculty members involved, allowing the faculty members to live at home without commuting or relocating (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, October 13, 2008). A final challenge identified by the team was the lack of textbooks. Many students had evacuated the campus taking clothes, computers, and other valuables, but had left textbooks behind, reasoning they would not need them while away from campus. As a result, a question was added to the student survey inquiring about the student’s textbook status, and

eventually a process was set up to allow the student the ability to borrow textbooks from the TAMUG Book store until the TAMUG residence halls could be re-opened to the students to retrieve their textbooks. An additional fund was set up through the Association of Former Students Class of 1952 to purchase textbooks for any students whose books were lost or damaged during the storm.

Yet another team worked to identify issues in transferring billing and fees to TAMU- College Station. This process was already mostly in place through the satellite campus status of Galveston, but very quickly another problem resulting from Hurricane Ike was identified. TAMU- College Station's 20th class day was September 22nd, only a few days away. Unfortunately a large percentage of TAMU- College Station students' family homes were in the Houston and Southeast Texas region of the state, which was still without electricity or mail service. This meant many parents had no way to submit payment to the university. This issue posed a significant threat to the formula funding in the next biennium for both TAMU- College Station and TAMUG as the Fall 2008 semester was part of the base period used in the formula calculation. (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 17, 2008). An extension was requested, and eventually granted, through the Texas Higher Education Coordinating Board.

The final team was charged with identifying issues concerning financial services. The major focus was in relocating the Financial Management Services to TAMU- College Station and assimilating their operations without interruption of important services like payroll and expense tracking. The model used to track and document costs

incurred through the relocation effort was based off a similar model used during the Katrina student relocation. Furthermore it was determined the university could track costs through support accounts. This team also took on identifying campus mail issues for relocated faculty and students as well as textbook requirements for TAMUG students (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 17, 2008).

The Students Arrive

On Monday, September 22nd, TAMUG students were scheduled to begin arriving at the General Services Complex, a building on the perimeter of TAMU-College Station's campus where the Galveston administration had been granted office space to use as a headquarters. Graduate students and freshmen were instructed to arrive between noon and 4:30 pm. The next day, Sophomores were scheduled to arrive from 9:00 -11:00 am, Juniors from 11:00 am – 2:00 pm, and Seniors from 2:00 – 4:30 pm. They were told they would have the opportunity to pick up schedules, revise schedules as required (or desired), receive their TAMU ID card, housing assignments, parking permits, meal plans, and get any questions answered. Financial aid and student counseling personnel were available as well (Texas A&M University at Galveston Relocation to College Station Briefing Memo for President Murano, September 19, 2008). This information was posted to the webpage and sent as an E-2 campus text message to notify all students.

Students were in line as early as 9:00 am on Monday, and by noon, hundreds of students were in line. Standing in long lines was counter to the culture of TAMUG

which prides itself on its small personalized attention to the students (Interviewee #2, personal communication, 7-22-11). The lines slowed even further as the class registration team struggled to make changes necessary as a result of a computer reporting error discovered only days prior (Interviewee #1, personal communication, 7-18-11). The housing station caused more tension as students were assigned to the various contracted facilities or on campus housing. Although the vast majority of students were pleased and appreciative of the university's effort, many were unhappy with their assignment and wanted the ability to pick from the contracted assignments. Once word began to spread about the different amenities at the different properties, students began to switch with each other despite signed contracts or come back to the line to request changes. Others were less than pleased to hear that cost neutral did not mean the university was going to house their significant others and multiple pets as that was what their housing situation entailed in Galveston. Still others found that the assignment put them with someone considerably older or that was not a good match and/or not pleased that they were suddenly getting a roommate from Galveston. Had any of the issues occurred independently, they could easily have been resolved, but the registration process had students in line by the hundreds, and it was extremely difficult to break those individuals who could address the problems away from the registration process (Interviewee #2, personal communication, 7-22-11).

The lack of a definition of cost neutral came into question in other areas as well. The university had viewed the term cost neutral as defined by if a student was still tied up in a lease in Galveston as many were, the university would assume the cost of a lease

in College Station until the student could be released from their Galveston lease. In addition, if a student was paying a certain amount in Galveston and was released from their lease, they would continue to pay that amount and the university would cover the difference, even if the cost was higher. The same philosophy was held for things such as meal plans and parking permits. Many students, however, understood cost neutral to refer to amenities as well. Those students didn't understand why if they had high speed internet and a cable tv package which they were still contracted to in Galveston, why weren't they placed in apartment complexes that offered the same amenities in College Station. Those students who were placed in the Plaza Hotel, and as a result didn't have kitchens, didn't understand how they were not given some sort of meal package to offset the higher cost of not being able to cook. Lastly, there were some students who had read about the relocation and cost neutral commitment and came to College Station early to find their own apartments. Several of these students became upset to learn that the university would not reimburse them if they made their own arrangements and were not in the housing contracted by the university, as they felt they were being punished for being proactive in securing their own housing (Interviewee #2, personal communication, 7-22-11).

After securing their individualized class schedules, parking permits, student identification cards, housing assignments, financial aid, and counseling, the decision was made to discuss university services in a more generalized format to the entire student body. On Tuesday evening, September 23, a student assembly was held. This was originally scheduled in one of the large meeting rooms of the Memorial Student Center,

but moved at the last minute to Kyle Field to handle the larger numbers. A series of speakers addressed the crowd on issues considered critical to their success. General Weber, Vice President of Student Affairs at Texas A&M University, welcomed the Galveston students to TAMU- College Station and introduced Dr. Loftin. Dr. Loftin addressed the student crowd, gave a state of the university address, and invited questions from the students. Following Dr. Loftin, a series of speakers outlined various services for the students, how they would work for Galveston students, and where they were located. The speakers included:

- Dr. Ric Montelongo, Director of Academic Enhancement at TAMUG discussed academic enhancement including supplemental instruction and tips for the new semester.
- Adrian Truliollo Gonzalez, Assistant Professor and Instructional Service Librarian from TAMU- College Station and Steve Conway, Director of Computing and Informational Services at TAMUG discussed general information about the libraries on campus and how resources provided at TAMUG were to be delivered on the TAMU- College Station campus.
- Miles Rucker, Lead Information Technology Consultant at TAMU- College Station Computing Information Services shared information about computing services and what students needed to know for access.
- Ken Bailey, Assistant Director of Career Planning and Services at TAMUG discussed how their services would be provided.

- Dr. Martha Dannenbaum, Director of Student Health Services at TAMU- College Station discussed the services available through the student health center.
- Stacey Rugh, Dining Services at TAMU- College Station shared additional information regarding the conversion of the meal plans.
- Debbie Hoffman from Transportation Services at TAMU- College Station discussed parking permits, campus bus system, and parking locations.
- Cassandra Boyd, Multicultural Services at TAMUG, discussed the office of student life and support activities for students.
- Shelly Fordyce, Assistant Director Student Life at TAMUG, discussed student organizations, intramurals and continued involvement in student activities.
- Mike Spiers, Student Body president at TAMUG and Mark Gold Student Body President at TAMU- College Station discussed student government and encouraged the student body (Galveston Student Assembly Informational Packet, September 23, 2008)

At the conclusion of the assembly, an announcement was made that the city of Galveston would be opening the Galveston causeway for day visitation starting at 6 am the following Saturday, September 27th. Students were encouraged, but not required, to return to the Galveston campus where university personnel would be present to allow access to the residence halls for any students who wanted to remove their belongings. Lastly a series of town halls would be conducted throughout the semester to keep

students informed of the progress in Galveston and information would be communication through the website and campus emails (Interviewee #2, personal communication, 7-22-11).

The Semester Starts Again

On Wednesday, September 23, classes began anew. Most of the TAMUG operations continued to operate out of the General Services Complex on the periphery of campus. TAMUG was provided office space, and there was adequate parking for students who needed to resolve issues. At the same time, many administrators in the TAMUG Student Affairs area voiced concern that the Galveston students needed an area to call their own more centrally located. There was a lot of concern that with the size of TAMU- College Station that many TAMUG students would feel lost and with the added stress of the storm and unfamiliar campus surroundings, their chance of success would decline. The issue was resolved when Ron Sasse, Director of Housing for TAMU offered the use of a recently vacated temporary building in the Grove. The building offered multiple offices and a much more centralized location as well as an adjacent parking lot that would later prove to be an ideal spot for student activities, TAMUG yell practice before the TAMU- College Station Yell Practice, or even a meeting spot prior to the game. TAMUG Student Affairs and Student Government quickly moved in and hung the Texas A&M University at Galveston flag out front, a flag that caught many students' eye as they walked to class. Couches were installed and the building quickly became a meeting point for TAMUG students between classes or whenever they needed to see a familiar face (Interviewee #2, personal communication, 7-22-11).

As the students resumed their routine of attending class with their classmates and faculty, the various departments worked to develop their own identities under the umbrella of Texas A&M University. For example, the Student Life Office that coordinates housing for the Galveston campus had worked extremely closely with their TAMU- College Station counterparts to assign students to on and off campus housing. However, once all of the students were assigned, they fell under the supervision of the very competent staff of Texas A&M University, and the TAMUG staff fell very much into a supportive role for the on campus students. One of the professionals, Neil Golemo, took on a residence life position, living in one of the TAMU- College Station residence halls to be more readily available to on campus Galveston students that might be in distress, and five Galveston community leaders took the equivalent residence advisor positions in the TAMU- College Station residence halls. The other housing staff looked to support the off campus students where TAMU- College Station did not oversee students to the same degree. Community leaders were assigned to the off campus apartment complex, Melrose Place, where a large number of freshmen had been assigned to keep them together as a group. The philosophy was even though the apartments were located off campus, they were contracted through TAMU- College Station and as such, university rules still applied and could be enforced through the community leader program. Unfortunately with a limited mixture of College Station students who were not contracted under TAMU- College Station also present in the apartment complex, enforcement of drinking and parties by the underage was fairly ineffective. Other issues arose with Galveston students inviting non-TAMUG friends

from Galveston, many of whom could still not get access to their apartments in Galveston, to come to College Station to stay on couches or floors, creating tension for their new TAMU- College Station roommates who understood taking on one roommate but not their friends as well. These situations were fairly limited in number, but allowed the TAMUG staff the ability to continue to resolve housing issues, particularly off campus situations, in support of TAMU- College Station's operations.

The same was true in a number of other areas of student affairs. A memorandum of understanding between TAMU- College Station and TAMUG's conduct offices provided a clear process for students who had violated University Student Rules to be co-adjudicated by a TAMU- College Station and a TAMUG hearing officer. The same was true of Cadet violations, where the minor violations were handled within the TAMUG Cadet Corps, and major violations were co-adjudicated by representatives from both campuses. In Student Activities, a meeting was held on September 30th with the TAMUG Student Activities and TAMU- College Station Student Activities departments. Besides introducing the two staffs to each other, issues concerning the specific needs, including their banking processes, of TAMUG student organizations, offers of resources, services, and support from TAMU- College Station, access to TAMU- College Station StuAct Online service for organizational training, and the identification of important processes and procedures for TAMUG student organizations were discussed in detail. The TAMU- College Station staff offered training and an orientation to the TAMUG student organizations and even offered partnerships in other campus program areas (TAMUG/TAMU Student Organization meeting agenda, September 30, 2008).

Intramural and Recreational Sports were handled a little differently as TAMU- College Station charged teams to participate, something that TAMUG did not do in their recreational sports program. In discussing the issue in light of the cost neutral philosophy, the decision was made to continue to hold TAMUG exclusive intramurals with no charge to the students. The TAMU recreational staff identified fields, equipment, and resources for the TAMUG program to run completely independently (Interviewee #2, personal communication, 7-22-11). A final example was the TAMUG tutoring services that also ran independently on the TAMU- College Station campus that eventually ended up attracting a number of TAMU- College Station students to their services (Interviewee #1, personal communication, 7-18-11).

With the very effective support and administrative structure of TAMU- College Station already in place and very capable of managing the additional 1,500 Galveston students, many Galveston departments were able to focus their energy on issues that were unique to the hurricane situation. Besides the thousands of emails and phone calls from students and parents that one would expect from a relocation of nearly 2,000 students to a different campus, there were many special circumstances that arose from the relocation. Much of the time was spent ensuring that the Galveston students kept their identity as a group on the TAMU- College Station campus. Galveston Student Activities staff planned activities for the Galveston students often before or after major TAMU- College Station activities. The Galveston Counseling staff implemented Taco Tuesdays where Galveston students would meet at the local Taco Cabana every Tuesday just to see familiar faces and reconnect with Galveston staff. Several town hall meetings

were held where Dr. Loftin addressed the students via distance technology from Galveston with updates on the progress of the campus as well as the City of Galveston itself and provided the opportunity for the students to ask questions. The town hall meetings were often very well attended but were also videotaped and put on line for those students who were unable to attend (Interviewee #8, personal communication, 8-10-11). Through the town halls and suggestions from the students, several trips to Galveston were coordinated where busloads of students provided volunteers to Galveston residents, including many TAMUG staff and faculty, to help clean up homes and property from the extensive flooding. These volunteer efforts were exceptionally impactful to those faculty and staff most affected by the storm (Interviewee #2, personal communication, 7-22-11).

There were also new responsibilities required as a result of the storm. For one, TAMUG, concerned about the cost of the relocation, had asked all students to go to the FEMA webpage and apply for relocation assistance which would then be paid to reimburse TAMUG. The reimbursement process through FEMA was a horribly confusing process as students and parents were unsure how to complete FEMA forms as it related to a university relocation process. FEMA investigators wanted to view vacated residence halls rooms with students and proper accounting processes for receiving any reimbursements further complicated this process for the students who were trying to focus on their studies. The TAMUG housing staff expended a considerable amount of time and energy working with students and FEMA to complete the necessary documents

before the administration determined they would change the process and apply for reimbursement of the relocation of the students as a group.

At the same time, the Texas A&M University's Association of Former Students donated \$200,000 to support students who had been affected by the storm with a primary focus of alleviating student's critical relocation needs, textbook replacement, and uniform replacement for cadets in the Texas Maritime Academy. A small team chaired by TAMUG's Director of Student Life with representation from TAMUG's Communications department, TAMUG Student Government Association, and TAMU's financial aid department determined a process for awarding the money. An online application was developed to allow students to detail their losses, needs and request relief. Wading through the numerous requests and awarding the money while observing limits mandated by the federal government, as the money fell under financial aid rules, took an extraordinary amount of time with students often required to adjust their financial aid paperwork as part of the process. Eventually over 200 students received as much as \$2,100 of financial support from this fund, and many indicated that this funding was what allowed them to continue their semester. While this process evolved, the extremely committed Aggie Mother's clubs across the state had organized huge donation drives to benefit the faculty, staff and students affected by the storm. Donations literally by the truckload were arriving in College Station with everything from furniture, plates, kitchen appliances to hundreds of gift cards. TAMU- College Station had identified a warehouse to store the considerable number of donated items while faculty, staff, and students were asked to complete an online form itemizing items that had been lost in the

storm. Staff from TAMUG's book store and mailroom, along with considerable student volunteer assistance, were able to prioritize lists, with a great consideration given to income level of the recipient, and sort the donations into groupings according to the individual's wish list. Once sorted, many of the packaged groups of items were sent by U-Haul truck to Galveston where many of the staff who had been impacted the worst, were still working. Items that were not grouped were available for any Faculty, staff or student affected by the storm to look through and take home. As one participant described:

The donation system you know, I don't know who had the idea. It might have been from Rodney who had the idea of going out into the community soliciting donations and then finding a way to transport what was donated down to Galveston, and I had it as just one more thing for Rita to do, but I'd asked Rita to coordinate with the gentleman that was in, I think it's the old food service commissary, and just asked her to see, you know, to coordinate with him as far as space went. Then somehow the word got out that we were soliciting donations for whatever. It could be beds, dressers, sofas, mattresses whatever and people just came and dropped their donations off at the commissary and it really just exploded. And then obviously the next piece was we had to find a way to get it from College Station down to Galveston. Ironically at about the same time we were initiating that donation drive in College Station, folks in Galveston had begun to do the exact same thing here in Galveston for people that had stuff that they wanted to donate. Long story short it turned out to be what I think was a fairly successful project. Basically we got the stuff from College Station down to Galveston by having somebody who was working in Galveston on the Galveston campus drive a truck and a trailer up a couple or three times and load it up and brought everything back into town and then they had a big donation store if you will in the gym and the folks were able to come through and take what they needed (Interviewee #2, personal communication, 7-22-11).

Back in Galveston

While the faculty, staff and students struggled for some sense of normalcy on the campus setting of TAMU- College Station, things were anything but normal in Galveston. For the first few weeks after the storm, even the ability to get on and off the

island was limited as both the Galveston causeway was shut down to all but official traffic, and the small road and bridge, the Pelican Island Causeway, leading to campus was significantly damaged. As most of the senior administration had been tasked with facilitating the relocation of operations to TAMU- College Station, Dr. Brad McGonagle was put in charge of securing the campus, coordinating repairs and debris cleanup, and returning the Galveston campus to its pre-storm condition (Interviewee #11, personal communication, 9-9-11).

The first step was to secure the campus. This was accomplished by parking one of the university police officers at the front gate to monitor anyone coming onto Pelican Island. Other officers were positioned strategically around campus when not making rounds to prevent unauthorized individuals from accessing the campus. When the facilities assessment team arrived from TAMU- College Station a few days after the storm, individuals from the Galveston campus' facilities services as well team members from Vaughn Construction, a major construction company in the process of building a new campus building, were on hand to tour each building and identify damage as well as security breaches caused by the storm in the way of broken windows or doors.

While the damage to the campus was being assessed, an assessment was also taking place with regards to the staff who had not been relocated to College Station. Physical well-being, location, status of their living situation and ability to return to work were all documented. As the status of the campus was being determined and plans were made to initiate clean up and repair, there was a real emphasis put on the people that would eventually get the campus back up and running. As one participant noted:

We have people who are fiercely loyal and dedicated to this campus and they go to book store and buy A&M t-shirts and A&M caps and they wear that when they're not at work. So they are very dedicated to this campus and that came through more than ever after Ike, because I'd say, they were out here working when they could have been home building or repairing their houses. So, I think folks were very focused on getting the campus back up and running but they also knew that we were there to help them (Interviewee #3, personal communication, 7-20-11)

During the two weeks that it took to start Galveston classes in College Station, progress was made on the Galveston campus. The weather had been extremely pleasant following Hurricane Ike which allowed rudimentary repairs to be completed to the Pelican Island Causeway. Once the road way was navigable, Vaughn Construction started rolling their heavy construction equipment across to assist with campus debris clean up. Very shortly after that, the Galveston causeway began to open to Galveston residents for day trips to inspect and work on their property as long as they left the island before the 6:00 pm curfew. There was still no electricity, water or sewage working on the island. As TAMUG employees returned to Galveston to find significant damage to their homes, they were offered places to stay, first on the ship and later in the campus residence halls.

Our residence halls were totally functional and so we were able to move those people who didn't have any place to live into the residence halls free of charge and we were able to keep them there as long as they needed to be. We had the world's oldest dorm resident, in Dr. Sammy Ray, who came to me and said, "I've worked at this campus for 60 years and I've never asked for anything. I need a house. I need a place for my wife and I to stay. Let's see, we've got Sammy at 90 and his wife, Charlotte at 89 and I told them "there is only one condition." I said, "Doctor, you can't drink in the dorms" and he said that, "Charlotte asked me about this - 'I can't drink my wine?'" It's a University rule. But, yeah, I mean that was one of the things for me that, was rewarding to me personally is that I was able to help so many people who are having such a hard time and campus was almost, not secondary but once we got people stabilized, 'cause we had people that have been working that lost everything. They'd come here and

put in an 8 hour day and then would leave and go home and put in another three or four, five hours on their houses (Interviewee #3, personal communication, 7-20-11).

Food was also a challenge in the initial weeks. Without electricity and water in the city, the grocery stores were non-operational. The ship, originally planned to be immediately relocated back to the campus dock after the storm, had the storage and cooking facilities to feed hundreds and had done so as a relief ship in New Orleans after Katrina (Interviewee #11, 9-9-11). Unfortunately the silting of the dock prevented returning to the campus dock, so very early on the workers would stop for lunch and travel across the channel to where the ship was docked. Eventually even the meal times became part of the daily process.

I think the fact the meals were especially critical, because what happened with meals was we started more before we got the dining hall back up and running, when we were just a physical plant department working with our own staff. We had a barbecue pit and that's one thing about Tammy Lobaugh, Director of the Physical Plant at the time. Her strengths are crisis management in terms of logistics as far as I know. She had a barbecue pit going all the time. She knew where to get the food, she had to talk a little on all that stuff you had Tammy cooking. And, so, Tammy was excellent at doing that, we had, morning meetings and close of day meetings at the end of each day, where we could debrief everybody and find out where to set up for our next day's work or we need to focus the next day.

But once the dining hall was back up and running - because after the facility physical plant people came in and got everything stabilized then dining services was the next group to come back - So they started getting the dining hall back up and running and once they got it, where we could cook which, I don't know if the health department came out and checked. Actually I think they did. But they started cooking because we had gas, we had natural gas so, I think by then the water was back on but then it became more of a true family atmosphere because everybody looked forward to going to lunch every day and it was very much a family lunch. We had a free lunch for everybody that was on campus for basically, from after Ike until the end of October. Everybody who was on campus went to the dining hall and ate lunch for free. That was my call, I didn't share with everybody, that was a command call that says and I guess because, we

know at least folks who would be getting one hot meal during that time. There's a lot of people that, didn't have anything and that was their only hot meal (Interviewee #3, personal communication, 7-20-11).

As a result of the assistance of the TAMU- College Station Damage Assessment Crew, several TAMU- College Station craftsman and technicians, Vaughn's heavy machinery and expertise, and TAMUG's staff working in small crews, the damage incurred by the campus was fixed, and the massive amounts of debris was removed in fairly short order. Contractors were secured for the bigger projects like building roof damage and damage to the waterfront with plenty of time for completion before the Spring semester. However, it wasn't the damage to the campus that drove the decision to relocate to College Station as much as the damage to the city and lack of available housing for the students. TAMUG only had 600 beds on campus with another 120 beds on the ship to house approximately 1800 students in the Spring. The city of Galveston still had extensive damage to many of their apartment complexes and homes, and repair was going painstakingly slow as owners waited for insurance and permits to be processed. Pelican Island Private Student Housing, one of the privatized facilities across the street that accounted for 180 student beds, had water intrusion into the building, and the owner had simply locked up the building and left for California. Although possible to get renovated in time for the Spring semester, time was running short and the current owners showed no interest in investing the money necessary to make the repairs. University Apartments, the other privatized property across the street that accounted for another 250 student beds, had water intrusion into many of the downstairs apartments, but the second and third story apartments were still suitable for living with a small

amount of work to the property. All of the units could be ready for the Spring semester, but the owner was not willing to wait for the Spring and leave his units vacant for the two months until the students came back. The availability of housing in Galveston had plummeted. People were looking for places to stay while they worked on their uninhabitable homes jumped on any vacancies. Rental prices sky-rocketed, pushing the costs of many of the apartments where students previously lived above the typical student price range.

Within weeks of the storm, Dr. Loftin was out speaking to local civic groups, reiterating TAMUG's commitment to the city and inquiring about potential housing for students to come back to in the Spring. As the city became more and more stable, various civic groups were meeting again to discuss the future of the city, and Dr. Loftin made multiple appearances and re-connected with the city leaders, especially since he was the chairman of the island's United Way campaign and had given the kick off speech to the campaign only a week before the storm hit (Interviewee #11, personal communication, 9-9-11). Through these connections, Dr. Loftin constantly sought housing opportunities for the students, but also asked what TAMUG could do for the residents of Galveston which brought about two results. The first developed into a process for identifying potential housing in which someone would identify housing that would be available in the Spring. Then Dr. Loftin would pass the information onto the Director of Student Life, who would meet with the individual(s), explore the property and if appropriate add it to the database to share with students. Through this process multiple properties were identified including new apartment complexes opening twenty

miles north of Galveston, Assisted Living facilities, privately owned homes, apartments in Texas City, and completely demolished apartment complexes in Galveston that developers promised to rebuild in time for the Spring semester if TAMUG was willing to enter a long-term contract to finance the build. Eventually TAMUG did enter into just that type of agreement with the original builder of the Pelican Island Private Student Housing, who offered to buy back the building and renovate it by the Spring provided TAMUG would enter into a ten year lease to fill and manage the facilities. Furthermore, the campus agreed to lease the available apartments in the other property across the street, the University Apartments, from November until May to prevent the owner from leasing the property to others, so it would instead be available to the students when they returned in the Spring. By adding more beds to some of the more spacious apartments in these two facilities, the administration calculated approximately 1,200 beds for the ship, on campus residence halls, and two privatized facilities across the street. Another 100 beds were identified in the community as of mid-November. With the typical attrition that occurred in student enrollment from Fall to Spring, that still left an estimated two hundred students without housing but more apartments were coming available every day. As it turned out, even with the Coast Guard declaring the ship unfit for living only two weeks before the Spring semester started, returning students found more than enough housing in the community and half of the University apartments that had been reserved for them went unused.

The other result that came of Dr. Loftin meeting with all of the Galveston community and civic groups was the extension of assistance from TAMUG into the

community. Very rapidly people realized that not only was TAMUG in a position to assist, but was very willing. There were many examples. For one, while the students weren't using the residence halls, they were offered to the University of Texas Medical Branch (UTMB) students who had also had their housing impacted by the storm. TAMUG students coordinated a weekend where they cleaned out their belongings to make room for the UTMB students to use the TAMUG residence halls until January. Although the original estimation was 300 UTMB students would utilize the TAMUG residence halls, only around 50 eventually ended up moving onto campus, since many found places in the community. Still, many of their classes were held at TAMUG.

The other thing that we did was UTMB was back up and running class wise and some of the adjunct faculty, some of the faculty in UTMB had connections here in Galveston. So UTMB actually held classes here on our campus in our classrooms because it was a total swamp down there. I don't know how many classes they held but they had several classes down here. So we were able to throw a lot of our resources to help the community.

Another one was the Sunshine Center which is a center for mentally challenged adults. It's a kind of adult day care for mentally challenged adults. Their facility was wiped out, and we were able to put them in our Sea Aggie center and they could still function and that was a tough one because a lot of the participants in that program had their families who had not planned for what they would do with these folks post Ike. So the sunshine center getting back up and running was critical and so... they came over to do their crafts and we loved having them on campus, they were absolutely phenomenal. They loved being here, they had a good time. I paid for their meals I think I paid for a meal once a week for them because they came and ate with us in the dining hall. We invited them over for that. We invited them over for Halloween and then Thanksgiving. We brought them over because they were still here till Thanksgiving. So we brought them over and fed them at Thanksgiving, so we were able to help. That's probably one of the biggest things and not many people knew about that. Anybody who really

needed help we were able to give it to them (Interviewee #3, personal communication, 7-20-11)

Dr. Loftin also contacted the superintendent of the Galveston Independent School District to offer their teachers lodging in the University Apartments while the students weren't using them prior to the spring semester starting. When only a few accepted the offer, the rest were offered to the employees of Gulf Copper, whose headquarters are down the road from the campus. Even the Office of the Governor inquired about positioning a large mobile kitchen on the campus, an idea that was later dropped due to the distance of TAMUG from the center of the island (Interviewee #3, 7-20-11). TAMUG demonstrated its commitment to the community throughout the evacuation.

There were all kinds of ways things were going on there and I can't say it was like a grand design. It happened spontaneously many times because of individuals and people who recognized right away that TAMUG was there as a resource and they reached out to us once they understood they could and when we could help them, we did. (Interviewee #11, personal communication, 9-9-11).

The Cost of the Storm

Hurricane Ike was the third costliest hurricane in the nation's history with 75% of all structures on Galveston Island receiving some type of damage (Henton, L., 2012). As the huge hurricane's eye passed directly over the city, it was a foregone conclusion that there would be damage. The questions were how much, was it recoverable, and how would this storm financially impact the future of TAMUG. After all, when another hurricane struck the island in 1993, it had taken years to recover the university's enrollment (Interviewee #11, personal communication, 9-9-11). So in considering the damage from the storm, the university was not only concerned about the immediate

damage from the flooding and powerful winds, but also about the future implications of lost revenues from sacrificing a semester. After considering the long years of smaller enrollment following the 1993 storm, the decision was made long before the storm hit that the University could not face a semester long shut down of operations.

We could have lost the whole fall. We would have lost that benefit to society we talked about. Depending on the decision about refunding which, if we ended up at that point, we wouldn't have made the decision to credit at all. We would have had to keep their money. We couldn't survive to January without keeping their money. So save for our January scenario. That means we kept their money. That means they got no skin in the game to come for. I think in January we would have seen 80 percent of our students return, or less.

I'm not sure we would have survived as an institution if we tried to re-open in January, because if it was 70% for those other students and if somebody didn't do something heroic in December, we ran out of money. I would have had to lay my staff off. Don't have the money. Because about half of my staff was funded on local funds, not state funds. I couldn't have made it to January without somebody doing a heroic decision and with us not doing our work. If we just sort of lollygagged around and opened in January, the odds of anybody coming, making a more heroic decision than we're making is really low (Interviewee #5, personal communication, 7-29-11).

Within twenty-four hours of the storm, the decision was made to relocate to College Station with guiding principles of cost neutrality to the faculty, staff, and students and a commitment to keep Galveston students with their Galveston faculty members. As the implications of the guiding principles were discussed, it became obvious that both of these principles threatened to add significantly more cost to the already substantial storm damage costs. One of the participants in the meeting recalled, "It was kind of scary because we had never dealt with FEMA. I mean it was scary for me because I'm sitting there and going, 'Oh my God he is making all these promises here.' I'm thinking we are going to spend all of our fund balances to maintain the Sea

Aggie identity” (Interviewee #6, personal communication, 8-2-11). By the end of the meeting, the leadership around the table determined that the financial commitment to the guiding principles was necessary and they moved forward with the TAMUG Business Continuity Plan despite not knowing what that cost would be. As one participant recalled:

Two things made that possible. We had some reserves we could utilize. We anticipated ultimately that between federal and state sources we might get much, not all of it, reimbursed but there was no guarantee of that and so we depleted all of our reserves basically before we had this kick in. I also, of course, spoke to the president here, at that time Elsa Murano, and made sure that we had to have a line of credit, if you will, and we had that. I don’t recall having used that but we did burn up basically all of our reserves to get this thing done. Fortunately, the state stepped in and did some things to really help us recover financially from that event and FEMA was also -- still is being worked on to reimburse us for some of the expenses that are allowable under their rules and regulations and so again, a very difficult task after the fact to try to go through all that and make it work and I have to give Susan Lee all the credit for what she did in terms of just tirelessly working through those particular issues for us. But again, it was gutsy in a sense that it meant we were taking some risk but I thought I had a backup in terms of -- especially Texas A&M where I could draw necessary -- some dollars from them. We repaid obviously ultimately. They have this bridge if we had to. I don’t recall having to do that necessarily but we really went to the limits pretty much what we had or in reserves when we started by the time we got done with it (Interviewee #11, personal communication, 9-9-11).

The first step to assessing the cost was the assessment of the damage. Within days of the storm, a damage assessment team made up from TAMU- College Station facilities personnel, TAMUG facilities personnel, and Vaughn Construction consultants toured and inspected the Galveston facilities. Based on this visit and very preliminary estimations, an outline of estimated costs for Hurricane Ike damages was created and submitted to the Governor’s office through the Coordinating Board on September 18 with the following amounts:

- Building costs related to Damages - \$18,945,521
- Aftermath Clean-up and Temporary service costs - \$118,057
- Housing - \$3,082, 728
- IT expenses - \$6,792
- Other expenses (security, research, extra Communication 203 sections, orientation, emergency leave) - \$2,025,267
- Lost revenue from cancellation of classes - \$2,907,969
- Lost revenue from auxiliary enterprises - \$150,000
- Contingency (% of error) (15%) - \$4,085,450
- TOTAL ESTIMATED COSTS - \$31,321,784
- Total without contingency - \$27, 236,334

(Texas A&M University at Galveston Relocation to College Station Briefing

Memo for President Murano, October 13, 2008).

For a university with annual budget of just over \$39 million the total costs were very concerning, but the only choice available was to move forward. Luckily as quotes and bids started to come in, the projections began to look much more reasonable. The next step was to determine what was reimbursable through insurance and FEMA.

We began early on assessing our cost then we had astronomical assessments because they weren't accurate and people were using a construction industry-folio for cost. I didn't start with that because I knew immediately, it was way too high; it was huge. But we began immediately early on getting quotes, very early on. So, I was able to put together for Dr. Loftin a kind of a summary of what costs we incurred and then what we expected to claim from FEMA, insurance proceeds and revenues that we have already collected. Like for example, we had already collected revenues from students for housing. So, we weren't going to ask FEMA for that entire cost, we are only going ask FEMA for the differential

cost between what they have paid and what we have to put them in, either a house or a dorm, and if was larger we ask for that differential (Interviewee #6, personal communication, 8-2-11).

To assist in this endeavor, a consultant, formerly employed by FEMA, was brought on to facilitate the reimbursement process. The consultant had come highly recommended through work done after Hurricane Rita had struck Lamar University in Beaumont, Texas a few years prior (Interviewee #6, personal communication, 8-2-11). His ability to clearly define the process, what was reimbursable, and insight as to how to categorize items in a manner which increased their chance for reimbursement were of great value to the university. For example, the securing of apartments and houses for students relocated to College Station was not unlike FEMA's own rental assistance relocation program for victims displaced by the storm. A memorandum from TAMUG's Fiscal officer Susan Lee to Krieg Campbell of FEMA detailed not only these similarities but also the resultant savings to FEMA as a result of the university's action. This helped TAMUG to secure partial reimbursement for the program (personal communication, January 29, 2009). Furthermore clear processes were developed to provide substantial on going documentation of every expense incurred during the evacuation and relocation process. Employees were given one of three designations – commuter defined as those employees who travelled to College Station from home during the day with no overnight stay; overnight traveler who travelled to College Station and stayed at least one night; and Displaced worker who temporarily relocated to College Station for the semester using housing procured by TAMUG. Each of these categories of employees had different reimbursement guidelines and documentation requirements which were submitted to the

Financial Services office. Forms were created by reimbursement of cell phone usage, meals, and other business necessities depending on employee status (Interviewee #6, personal communication, 8-2-11). Once Financial Services were able to review and approve the expenses, they were able to assess a realistic cost of ongoing operations to go with the damage incurred from the storm. Table 3 demonstrates the total costs of recovery from hurricane Ike with total cost estimates as well as the FEMA reimbursement categories and other possible funding sources as of March 10, 2009. These numbers, based on more accurate estimates and bids, projected \$17,260,690 in total cost of recovery, which were a little more than half of the initial estimate of \$31,321,784. With projected insurance, FEMA reimbursement, and student payments, the total impact was estimated at \$10,809,828.

Table 3. Texas A&M University at Galveston Estimates of Total Cost of Recovery from Hurricane Ike Includes Total Cost Estimates as well as Possible Funding Sources

Description	Total Estimated Cost to Date ¹	Actual to Date	Encumbrances/Payables	Possible Insurance	Possible FEMA Expense	Student Payments	TAMUG Impact w/o FEMA Assist.	TAMUG FY2009 Impact with FEMA Assist.	TAMUG Impact Beyond FY2009
Infrastructure									
Category A (100% FEMA Eligible)									
General Site Restoration (debris)	334,042	166,835	167,207		334,042		334,042		
Silt Removal at Texas Clipper Dock	450,000	398,877	51,123		450,000		450,000		
Silt Removal at Small Boat Basin	511,540	95,500	416,040		95,500		511,540	416,040	
Sub-total	1,295,582	661,212	634,370		879,542		1,295,582	416,040	
Category B (100% & 75% FEMA Eligible)									
Emergency Protective Measures (Repairs ..etc)	617,855	304,012	300,000		617,855		617,855		
Galveston Housing - Police	7,790		7,790		7,790		7,790		
Housing Contracts	2,561,605		2,561,605		1,497,682	423,522	2,138,083	640,401	
Commuter Employee Travel Costs	334,299	318,876	15,423				334,299	334,299	
Housing Secured for Spring - TAMUG	151,603	151,603			113,702		151,603	37,901	
Sub-total	3,673,152	774,491	2,884,818		2,237,029	423,522	3,249,630	1,012,601	

Table 3. Continued

Description	Total Estimated Cost to Date ¹	Actual to Date	Encumbrances/ Payables	Possible Insurance	Possible FEMA Expense	Student Payments	TAMUG Impact w/o FEMA Assist.	TAMUG FY2009 Impact with FEMA Assist.	TAMUG Impact Beyond FY2009
Category E (75% FEMA Eligible)									
General Building Damage	1,431,429	473,785	957,644		1,073,572		1,431,429	357,857	
Sea Aggie Center Roof Design/ Replace	298,977				224,233		298,977	74,744	
Mariner Hall Roof Replace	358,257			341,032	17,225		17,225		
Boat Loss - Mitchell Campus	268,300			133,000	101,475		135,300	33,825	
Boat Loss - Teichman Road Campus	57,500	8,000			43,125		57,500	14,375	
Sub-total	2,414,463	481,785	957,644	474,032	1,459,630		1,940,431	480,802	
Category F									
Pump and Equipment	55,490	55,490			41,618		55,490	13,873	
Laboratory Building	30,000				22,500		30,000	7,500	
Other(1)	100,000	29,850			45,150		100,000	54,850	
Sub-total	185,490	85,340			109,268		185,490	76,223	
Category G (marine Work & Other)									
Mitchell Campus Boat Basin	300,000	1,505	300,000		225,000		300,000	75,000	
Texas Clipper Dock	148,247	62,710	84,537		111,185		148,247	37,062	
Teichman Road Docks	150,000		150,000		112,500		150,000	37,500	
Wetlands Center	\$00,000		100,000		75,000		100,000	25,000	
Swimming Pool Repairs	23,400		23,400		17,550		23,400	5,850	

Table 3. Continued

Description	Total Estimated Cost to Date ¹	Actual to Date	Encumbrances/Payables	Possible Insurance	Possible FEMA Expense	Student Payments	TAMUG Impact w/o FEMA Assist.	TAMUG FY2009 Impact with FEMA Assist.	TAMUG Impact Beyond FY2009
TAMU Utilities Electrical System Repair	300,000		300,000		225,000		300,000	75,000	
Sub-total	1,021,647	64,215	957,937		766,235		1,021,647	255,412	
Texas Clipper Ship Relocation Costs									
Ship moving & cleanup	170,000	75,126	75,000		57,500		170,000	112,500	
Sub-total	170,000	75,126	75,000		57,500		170,000	112,500	
Other Expenses									
Temporary Support at TAMU	8,312		8,312				8,312	8,312	
Copies, rental ..etc - Academic Expense	16,200		16,200				16,200	16,200	
Teaching addt'l classes - TAMU Salaries (grads 3 Comm Classes)	10,125		10,125				10,125	10,125	
TAMU Services provided TAMUG Students Day one and Day two	42,454		42,454				42,454	42,454	
Employee Cell Phone Expense	1,875	1,875					1,875	1,875	
Disaster response - on-site meals	8,841	-	8,841		6,631		8,841	2,210	
Employee Vehicle Expense	9,405	9,405			7,054		9,405	2,351	

Table 3. Continued

Description	Total Estimated Cost to Date ¹	Actual to Date	Encumbrances/Payables	Possible Insurance	Possible FEMA Expense	Student Payments	TAMUG Impact w/o FEMA Assist.	TAMUG FY2009 Impact with FEMA Assist.	TAMUG Impact Beyond FY2009
Campus Security - Police Overtime	27,310	27,310			20,483		27,310	6,828	
Temporary IT person to assist at TAMU	4,082	4,082					4,082	4,082	
Temp Counseling at TAMUG	13,250	13,250			9,938		13,250	3,313	
IT expenses	6,792	6,767					6,792	6,792	
Other Expenses	148,646	62,689	85,932		44,105		148,646	104,542	
Mitigation of Coastal Erosion & Shore-side Dock Reinforcements	5,000,000						5,000,000	5,000,000	
FY2009 Lost Revenue from Cancellation of Classes									
Student/Academic									
Tuition/Fees of withdrawals	497,700	497,700					497,700	497,700	
Dorm, Meal Plans, Parking Refunds	213,300	213,300					213,300	213,300	
Sub-total	711,000	711,000					711,000	711,000	
Loss of Formula Funding for 2010-2011									
Operations Support	1,000,000	1,000,000							1,000,000
E&G Space Support									
Sub-total	1,000,000	1,000,000							1,000,000
Lost Revenue for auxiliary enterprises	-	-	-	-	-	-	-	-	
Food Services	808,981	808,981					808,981	808,981	
Bookstore	354,929	354,929					354,929	354,929	
Residence Halls	456,579	456,579					456,579	456,579	

Table 3. Continued

Description	Total Estimated Cost to Date ¹	Actual to Date	Encumbrances/Payables	Possible Insurance	Possible FEMA Expense	Student Payments	TAMUG Impact w/o FEMA Assist.	TAMUG FY2009 Impact with FEMA Assist.	TAMUG Impact Beyond FY2009
Residence Halls	456,579	456,579					456,579	456,579	
Lost Citation Revenue	20,221	20,221							
Sub-total	1,640,710	1,640,710					1,640,710	1,640,710	
Grand Total Estimated Costs	17,260,690	5,556,568	5,595,702	474,032	5,553,308	423,522	15,363,136	9,809,828	1,000,000
Total to be requested							10,809,828		

Estimated cost to date are best estimates from various sources such as building site assessments, ships needs, move of students to College Station calculations, contracts let for housing and others. These may change as we continue to discover additional costs and fine tune estimates.

The next step was to pursue Legislative support for this damage. On February 3, 2009, the Texas Senate Finance Committee, chaired by Senator Steve Ogden held a meeting as part of the 81st Legislative Session to consider the overview of major emergency expenses with the damage from Hurricane Ike being the major discussion point. TAMUG was one of eight agencies experiencing significant damage and/or business interruption who were asked to brief the committee on the hurricane impact (Texas Senate Finance Committee Agenda, February 3, 2009). Table 4 represents a summary of damage that was provided to Texas State Senator Craig Eiland and the Texas Senate Finance Committee for which the university sought state assistance (Interviewee #6, personal communication, 8-2-11). Dr. Loftin presented the total cost of recovery while

comparing it to the projected losses that would have been suffered had TAMUG not pursued the Business Continuity Plan. The difference based on the impact of refunds, loss of revenue, and loss in formula funding was projected to be \$10,957,515.80 as compared to the \$3,038,284 relocation expenses that had been claimed (Interviewee #6, personal communication, 8-2-11) This pro-active approach was extremely well received by the committee as described by one witness:

I think if you look at the questions that were asked at that legislative budget board. I think it was pretty clear that the perception was that we had done the right thing and we had it for the right reasons. I happen to watch it all day; I was working on something in office and watched it all day. Because I wanted to know - we've been working on what they were going to say and everything. So I wanted to see Doctor Loftin and Susan present and I happen to get in when U of H (University of Houston) was up. And they got hammered. Because you hear their solution, you're shelling out all this money to pay for them not taking care of their buildings, buildings that wouldn't have the damage they had had they maintained them. And so it was a very different discussion with U of H then it was with UTMB and with A&M at Galveston. And honestly they were like good job, move along. I mean that's kind of all that happened. They asked questions, they asked good questions, but there was never any like, what were you thinking? [Laughter] The whole U of H conversation was like, you know, brutal (Interviewee #4, personal communication, 7-27-11).

Table 4. Texas A&M at Galveston Summary of Costs to Date

Description	Total Estimated Cost to Date
Infrastructure	
Debris Removal	\$1,295,582.00
Emergency Repairs	\$949,045.00
General Bldg Damage	\$1,616,919.00
Sea Aggie Center Roof Design/Replacement	\$298,977.00
Mariner Hall Roof Replacement	\$358,257.00
Boat Loss - Mitchell Campus	\$268,300.00
Boat Loss - Teichman Road Campus	\$57,500.00
Mitchell Campus Boat Basin	\$300,000.00
Texas Clipper Dock	\$148,247.00
Teichman Road Docks	\$150,000.00
Wetlands Center	\$100,000.00
Ship moving & cleanup	\$170,000.00
Mitigation of Coastal Erosion & Shore-side Dock Reinforcements	\$5,000,000.00
Infrastructure & Mitigation Subtotal	\$10,712,827.00
<i>Less: FEMA Reimbursements Claimed</i>	<i>\$3,897,819.25</i>
Infrastructure & Mitigation Net of Reimbursements Claimed	\$6,340,975.75

Table 4. Continued

Description	Total Estimated Cost to Date
Relocation Expense/Emergency Sheltering	\$3,047,507.00
<i>Less: FEMA Reimbursements Claimed</i>	\$1,611,384.00
<i>Less: Revenues Collected to Offset this Expense</i>	\$423,522.00
Relocation Expense/Emergency Sheltering Net of Reimbursements Claimed & Revenue Collected	\$1,012,601.00
Other	\$148,646.00
<i>Less: FEMA Reimbursements Claimed</i>	\$44,104.50
Other Expenses Net of Reimbursements Claimed	\$104,541.50
Lost Revenues	
FY2009 Lost Revenue from Cancellation of Classes	\$711,000.00
Lost of Formula Funding for 2010-2011	\$1,000,000.00
Lost Revenue for auxiliary enterprises	\$1,640,710.00
Total Lost Revenue Current and Future	\$3,351,710.00
Hurricane Relief Request- Grand Total Estimated Costs Net of all Proceeds	\$10,809,828.25
Relocation Expense/Emergency Sheltering	\$3,047,507.00

The following week on February 9, 2009, the Texas Senate Finance Committee convened to discuss Article III of the General Appropriations Bill, which focused on the funding of the state institutions of higher education. All of the Texas A&M System Universities, as well as five other universities, presented on their financial needs for the upcoming biennium (Texas Senate Finance Committee Agenda, February 9, 2009). Dr. Loftin presented once again on the impact of the Hurricane on enrollment as well as the critical need for legislative support in the coming funding period touting the \$10,809,828 impact (Interviewee #6, personal communication, 8-2-11). In the meetings, he emphasized the long term impact of the storm to TAMUG as this was a counting year for the next two years funding and TAMUG was forced to use the 20th class day enrollment rather than the 5th day enrollment for their head count. As a result, TAMUG stood to lose nearly a million dollars over the next two years (Interviewee #6, personal communication, 8-2-11).

At the same time as the senate finance committees were being held, the State Auditor's Office was conducting an audit of the hurricane's impact and the university's expenditures as a result of the storm. On March 27, 2009, the state auditors released their findings which projected a \$5.7 million cost of recovery with the "majority of difference between the auditors and University's estimates of total losses being primarily due to the \$5 million in costs related to the mitigation of coastal erosion and shore side dock reinforcements. The proposed mitigation and dock reinforcements project was previously included in the University's fiscal year 2010-2011 Legislative Appropriations Request, which was prepared prior to Hurricane Ike. Auditors did not include this \$5

million in their total of estimated losses because the proposed mitigation and dock reinforcement project existed before the hurricane” (SAO Report No. 09-025, 2009). The auditors had confirmed the expenditures and processes of TAMUG in responding to the hurricane. As a result of the recommendations from the audit, the university separated the \$5 million in costs related to the mitigation and dock reinforcements to a separate request in House Bill 51, a bill requesting authorization for the sale of tuition revenue bonds to pay for the necessary mitigation. TAMUG further reduced their requested amount by \$100,000 to match the auditors’ findings, but added \$500,000 to the amount to cover the debt service of the tuition revenue bonds that would result if House Bill 51 was appropriated. This total of \$6,209,828.25 was forwarded as part of House Bill 4586 (Interviewee #6, personal communication, 8-2-11).

In the end, both House bill 4586 and House Bill 51 were passed with over \$11 million of support flowing to TAMUG.. In addition, FEMA had approved TAMUG’s request for reimbursement of \$6.9 million worth of expenditures at an 80% rate with another \$770,000 project still likely to be approved. In considering the financial recovery, one TAMUG Crisis Management Team member described it like this:

So, when you look at, you know, did you perform well from a financial standpoint? Yes, we did. Now, did we use reserves? Yes, we did. Were we hurting? Yes, we were, but the fact is we recovered already 5.2 million out of 6.9 million. That’s not bad at all and we still believe we will be receiving, I would say, safe to say, 80% of that \$770,000. I don’t think we’ll get it all, because they are arguing and there are some things you’re not going to recover. So, it was a team effort between our legislators, FEMA and presenting the information really well; and I think we learned a lot, I think the next time it will be smoother because we will know how to accumulate these costs in the categories that they want (Interviewee #6, personal communication, 8-2-11).

The Return Home

As the weeks after the evacuation turned to months and students fell into the routine of their semester, eventually talk began about the return to Galveston. A series of town halls had been held throughout the semester with students and separately with faculty and staff that featured updates on the campus from Dr. Loftin via TTVN as well as procedural items like housing updates. Quite often the town halls were used to direct individuals to the webpage for surveys. One such survey was to assess the relocation process and its impact on the students so all students were asked to anonymously answer questions about their experience. This survey was fairly comprehensive in seeking input from the student body. The same was done with faculty with particular emphasis put on the academic experience of the semester. Yet another polled the graduating seniors to see if they would like to graduate in College Station with their TAMU- College Station peers, hold a separate graduation in College Station for only Galveston graduates, or third, return to Galveston and graduate despite the fact that hotels and restaurants were still somewhat limited. Overwhelmingly the graduating seniors voted to return to Galveston, and on Sunday, December 14, 2008 at 2:00 pm in the afternoon, 106 undergraduate and six Master's degrees were conferred in a ceremony well attended by city officials, Regents, Elsa Murano, President of Texas A&M and many other TAMU- College Station officials (Guidry News, December 12, 2008). The Sea Aggies had returned home.

The following Spring semester, classes would begin as scheduled on January 20th with a record enrollment for the Spring and an even larger enrollment the following Fall.

The enrollment had been 1,778 pre-Ike, dropped slightly to 1,563 for the Spring as enrollment always did, and reached a new record enrollment of 1804 in Fall of 2009. The administration was overjoyed to find the storm and relocation had not overly impacted enrollment (Interviewee #10, personal communication, 9-8-11). Although the city of Galveston was still recovering, the campus itself was mostly repaired before the students returned in the Spring, and very quickly the students fell back into their usual schedules. Faculty also fell back to their habits of teaching and research with many taking on research projects centered around Hurricane Ike's impact. While the students attended classes, the faculty and staff continued work on their homes. Counseling and support was provided to the staff and faculty through Employee Assistance Programs, but slowly TAMUG slipped back into the new normal. TAMUG had survived a 100 year storm and was ready to move on.

Restating the Purpose of the Study

The purpose of this study was two-fold: (1) to examine the Texas A&M University at Galveston's Crisis Management Team 's approach, deployment, and learning as a consequence of Hurricane Ike in the effort to return the campus to Pre-Ike status; (2) to evaluate the Quality Texas Foundation- Engagement Level Criteria as a framework for assessing crisis management in higher education.

Research Questions

1. What approach did Texas A&M University at Galveston utilize in their crisis management process?
2. What strategies did Texas A&M University at Galveston deploy in applying their approach consistently and ensuring the approach was utilized by all appropriate work units?
3. What learning occurred as a result of refining the approach through cycles of evaluation and improvement?
4. To what extent is the Quality Texas Foundation- Engagement Level Criteria an effective framework for assessing crisis management in higher education?

The Findings

Research Question 1 -Approach

Research Question One inquires as to the approach that TAMUG utilized in their crisis management process. When considered through the Baldrige framework, approach refers specifically to the identification of the various methods used to accomplish the crisis management process as well as the appropriateness of these methods within the context of the organization's operating environment as defined by the various Baldrige categories of leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, and process management. The approach also considers the effectiveness of these methods and the degree to which the approach is repeatable and based on reliable data and information

(i.e., systematic) (National Institute of Standards and Technology, 2011). Lastly in this context of a crisis response, the approach refers to the planned process leading up to the crisis. In reviewing the specific methods utilized in six of the seven categories of the Baldrige framework (the seventh – Business Results – would not occur in the Approach phase which is focused on the planning), a comprehensive view of the approach and planning of the TAMUG Crisis Management Team will be detailed.

Leadership

*Creating and Sustaining an Environment for Excellence - The **Leadership** category examines how the organization's senior leaders' personal actions guide and sustain the organization. Also examined are the organization's governance system and how the organization fulfills its legal, ethical, and societal responsibilities and supports its key communities (The Quality Texas Foundation, 2009). The following analysis and findings of leadership are derived from questions that are established by the Quality Texas Foundation-Engagement Level Criteria and outlined in Appendix I.*

The TAMUG Crisis Management Team employed a number of strong leadership actions in its approach leading up to the Hurricane Ike crisis. The first of these entailed the establishment of a clear leadership structure. The use of crisis management teams is generally considered best practice in crisis management literature (Mitroff, Pearson, & Harrington, 1996), and TAMUG had relied heavily on their structure in the development of the crisis management plan and throughout the crisis response. The Galveston team was extremely familiar with each other and worked closely with Dr. Loftin and their TAMU- College Station counterparts to develop a business contingency plan that would guide TAMUG through the crisis. This development of this plan, even though it originated during the previous TAMU- College Station president, Dr. Robert Gates' term, provided a strong enough framework to carry through into the new TAMU-

College Station leadership under the new president, Dr. Elsa Murano. The plan clearly delineated Galveston leadership and responsibilities as well as established TAMU-College Station counterparts for each one of the identified areas of the plan. In addition, the plan set and communicated the organizational vision, values, and performance expectations for the faculty, staff and students. The unity of the leadership team and consistency of their organizational vision was critical. As one participant noted:

I think from the most senior level the fact that Dr. Murano and Dr. Loftin were on the same page and very early on said, “We’re going to make this happen.” They didn’t just share that with those of us sitting in that room on Sunday - they talked to the media about it, they sent it out in every message. That, I think, was huge, because had Dr. Loftin said it and not Dr. Murano, I think we would have been in a very different situation. But the fact that they were very united in that and agreed on it was pretty key. Once Dr. Murano had communicated her commitment, she kind of assigned the role of facilitation to Dr. Russell Cross. He made it clear to the people that he pulled in, which for the most part were those people that we had matched up in the plan. All the key leaders and he made it pretty clear to them that this relocation was their priority so I really don’t think we could have done what we did without that commitment from him (Interviewee #4, personal communication, 7-27-11).

Besides identifying and empowering the leadership, the plan went further in developing the organizational vision to move the campus beyond the crisis. Until only a short time prior to Hurricane Ike, the plan had been focused on simply weathering the storm, specifically securing the campus and evacuating the students. Understanding the recent lessons of Hurricanes Rita and Katrina and their impact on the colleges and universities in their path, the TAMUG leadership became proactive in developing a recovery and business continuity plan. Realizing the incredible value to the students and employees of TAMUG in being able to continue their semester regardless of the extent of the crisis, the leadership team developed a well-articulated plan that detailed an

organizational vision for the continuation of classes regardless of the damage to the campus. As one team member recalled:

So my role was always to go to College Station first and so, I was actually one of the first people to always leave campus as soon as the decision was made. I packed my office; I did my things here and closed down, went home closed that up and I would go straight to College Station, because I would start the command post there. And I'd done that for ten plus years.

On Rita, we got up there, I was ahead of all of that Houston traffic mess, but certainly lots of coordination at the command post was different, because there was so much of a mess due to the traffic situation scattering everyone and preventing many from making it to the command post. And we were -- after the initial crisis and we got everybody up there and in places to stay and everybody was safe and all of that was done, Dr. Loftin really was the first to ask well where is the continuity plan and we kind of went, "We don't have one of those because it would be, I mean, there's so many different parameters and so many different questions that how do you even start to look at this?" And he said "Oh, we need to look at this"

And so he started some processes after Rita that he forced people to develop single page white papers and I have the forms covering the enrollment services standpoint that was agreement for the registrar, financial aid, SIMS, etc. on a model of how we would react to a storm. Prior to the agreement, we wouldn't have had that, so I actually think when I did get here, we did move faster with more agreement in places, because that had already been done. We had the structure for the relocation plan in place, who the lead team members would be, and a lot of that identified before the storm actually ever hit (Interviewee #1, personal communication, 7-18-11).

Another method that the leadership team employed was the established expectation of clearly principled and ethical behavior. This expectation was not formalized with the actual plan but instead emphasized within the culture which they carried throughout the crisis. As stated in Ellen Chaffee and William G. Tierney's book "Collegiate Culture and Leadership Strategies,"

Institutions are certainly influenced by powerful external factors, such as demographic, economic, and political conditions, yet they are also shaped by strong

forces that emanate from within. This internal dynamic has its roots in the history of the organization and derives its force from the values, traditions, processes and goals held by those most intimately involved in the organization's workings. The most fundamental construct of an organization, as a society, is its culture. An organization's culture is reflected in what is done, how it is done, and who is involved in doing it. It concerns decisions, actions, and communications both on an instrumental and symbolic level (pg. 7).

TAMUG already enjoyed an environment with high personal accountability and high standards of ethical behavior. Nearly all of the TAMUG Crisis Management Team were long standing employees of the institution who were heavily invested in the university and each other. The leadership team was committed to continuing this philosophy throughout the crisis and reinforced this philosophy on multiple occasions throughout the crisis. In addition, the values and guiding principles established early on contributed further to an environment that fostered legal and ethical behavior. As one member stated:

I think we all had worked together enough in whatever capacity that it was understood that we were going to do this right. And I don't know how to be even more clearer than that. We were so focused on caring for our people, keeping the campus open, functional or getting it going in whatever form that would take, that we assumed that people are going to do things properly, to an extent. We also told people to keep good documentation of any money spent, any whatever so we had the financial folks in there, we had HR folks in there. Basically and most of those kinds of folks were people from the main campus working with Susan Lee... So those folks were talking, but we just told folks – keep great documentation, because we don't know what would we're going to have to provide to be able to be reimbursed, to be able to just justify what we did and then in cases where we did – so general counsel was a part of this conversation, so things that we did like contracts and as you mentioned leases, et cetera, so we made sure that we did, and so we had the people who knew those issues and potential pit falls who would raise a flag, but our primary objective was to get it done (Interviewee #10, personal communication, 9-8-11).

The TAMUG Crisis Management Team also worked diligently in their approach to create an environment for organizational performance improvement through a couple of

different processes in the development of the crisis management plan. The first was an extensive after action review process after each previous crisis where the plans were reviewed and improved upon. “The fact that we dissect every one of these crises, and do after action reviews of the past crises, greatly informs and improves the next crisis response. After all from the Rita evacuation we learned a great deal. So that process of review starts creating that organizational performance improvement” (Interviewee #9, personal communication, 8-18-11). Secondly TAMUG Crisis Management Team conducted annual table top exercises to test university response to various crises such as active shooters, fires, and hurricanes. The last table top exercise immediately preceding Hurricane Ike had been a hurricane scenario that incorporated many of the factors learned from Hurricanes Rita and Katrina, and resulted in a number of changes to the Crisis Management Plan (Interviewee #3, personal communication, 7-20-11). Lastly, the leadership utilized a process of reviewing best practice in response to other university crisis responses. One of the initiatives which was greatly credited with pushing the following Spring enrollment to a record high came from one of the Louisiana schools that had been struck by Hurricane Rita. “The idea of we’ll hold your money and come back in the spring or a 50 percent refund or some level of refund. That was an idea that somebody had heard that one of the Louisiana schools had done from Rita, and we found it to be attractive, obviously the idea we’re going to hold your money and come back in the spring was an idea to help students come back. (Interviewee #2, personal communication, 7-22-11). Although this particular initiative was not incorporated into the plan until after the Hurricane had struck TAMUG, it was the

process of reviewing other universities responses to crisis that had identified this initiative as a possibility.

Another important factor considered in the approach used by the TAMUG Crisis Management Team was the determination of the most critical of the university's programs, offerings, services and operations to society, the assessment of how the crisis might affect them, and a commitment to push them through. The most critical of these was quickly determined to be the graduating class not only of the Fall semester, but the following Spring as well.

In December, we graduated seniors that went into the workforce. If we needed to close down the campus and not relocate it, we wouldn't have graduated seniors in December. The December graduating class and the May graduating class is what we did for society in my opinion. If we made mistakes, we missed opportunities but we graduated seniors in December. I don't think we would have done that had we not relocated. I don't think we would have graduated seniors in May if we hadn't relocated. So, those two groups graduated on time, or at least 90% in the fall and almost 100% in the spring. That wouldn't have and they wouldn't have gotten to the workforce and they wouldn't have done all the things they did for society. We would have lost a year of their benefit to society, or at least a semester, a long semester that their benefit to society would have been lost.

That's probably the biggest thing that we did for society as a whole, which is of course our core mission. We should do it. But we could have failed to do it. So in other words, fulfilling our core mission in spite of it was our biggest support for society in my opinion (Interviewee #5, personal communication, 7-29-11).

It was largely based on this determination and the economics of losing a semester that resulted in the development of the business continuity plan as part of the approach to managing a crisis level storm. The focus of the business continuity plan was to get the students up to College Station and keep them on the exact academic track as prior to the storm.

Leadership had not been perfect in their approach to the crisis response planning. A major shortcoming in leadership's approach to preparing for the crisis was the predominately internally focused perspective of the plan. Past experiences had always resulted in significant wind based damage to the campus, with the campus often sustaining more damage than the Galveston community. As a result, TAMUG was often able to rely on the City of Galveston for support after a major storm, even housing nearly all of the students in the community after Hurricane Alicia (Interviewee #9, personal communication, 8-18-11). As a result of Hurricane Ike, those roles were reversed in that there was some wind damage to a few buildings but most of the damage suffered through the Gulf Coast was a result of catastrophic flooding from the huge tidal surge. With the majority of campus at well over 17 feet above sea level, most of the buildings escaped significant damage. Instead it was the city of Galveston where a majority of students lived and the roadway leading up to campus that suffered significant damage. This significant change meant that instead of TAMUG needing assistance from the Galveston community, the Galveston community would seek assistance from TAMUG. TAMUG's approach never even considered this as a possibility, and there was no part of the plan that addressed such a contingency.

The Leadership Team in the form of the Crisis Management Team and their College Station counterparts played a vital role in recognizing the evolving need for a Business Continuity component of the well-rehearsed crisis management plan. Through the identification of critical people and a well thought out plan that detailed the strategic goals and needs to the institution, the most critical aspects of the university's mission

were carried forward through the storm. Although leadership's approach to the plan was not perfect, the culture of ethical behavior and organizational improvement contributed to an overall effective approach to sustaining the university.

Strategic Planning

*Developing Strategic Objectives and Action Plans for Competitive Advantage - The **Strategic Planning** category examines how the organization develops strategic objectives and action plans. Also examined are how the chosen strategic objectives and action plans are implemented and changed if circumstances require, and how progress is measured (The Texas Quality Foundation, 2009). The following analysis and findings of strategic planning are derived from questions that are established by the Quality Texas Foundation-Engagement Level Criteria and outlined in Appendix I.*

An organization that is strategic in their planning and preparation for crisis is much more likely to be successful (Zdziarski, Dunkel, Rollo, & Assoc., 2007). The TAMUG Crisis Management Team was committed to being strategic in their approach, and the team members reported several of their strategies during our interviews. The first and most major of these was the continued development of the crisis management plan and specifically the development of the business continuity plan. Prior to Hurricane Katrina striking New Orleans, the TAMUG crisis management plan simply addressed the securing of campus and evacuation (Hinojosa, 1996). Once the devastation from Hurricane Katrina and even Rita was realized, strategic decisions were made to develop the business continuity plan that entailed the relocation of students to College Station (Interviewee #1, personal communication, 8-9-11). Counterpart meetings were held to further develop the broad strategic steps necessary for the plan, and tabletop exercises were conducted to test the plan well in advance of the actual crisis (Interviewee #3, personal communication, 7-20-11). The crisis management plan was critical:

The biggest strategy was having a business continuity plan. We could not have done this. We wouldn't have reopened to 13 days later without a plan in place in advance. I don't think anybody would have pulled the trigger to relocate to College Station without a thought about it a lot before the disaster. If we started that discussion there, nobody would have the balls to do it, Loftin included, me included and I'm a risk-taker personally.

But in the heat of the moment, it looked impossible. Without having the naivety of talking about it in advance before the disaster, we wouldn't have the nerve, I don't think, to do that. Because it looked so insurmountable and there's only a few of us there trying to represent the whole institution. Loftin, it's one thing to have a plan and then say you didn't execute. It's another thing to come up with a decision, a snap decision and make it in the face of that kind of challenge.

So, I don't think we would have done it as quickly without the plan of events and I really don't think we would have pulled the trigger to relocate. Without that plan of events, I think we would have said we'll get back when we can. We might have reopened the school by November 1st maybe. We couldn't have legally finished the semester as they're not enough days between the first of November and January 15th. We were probably changing the spring semester to go into June (Interviewee #5, personal communication, 7-29-11).

With the more strategic modification to the crisis management plan in place, individual managers of TAMUG worked extensively with their College Station counterparts to determine how to achieve those broader strategic goals through the development of one page white papers which detailed shorter and longer term objectives by department. Although the white papers were not formally a part of the crisis management plan, the discussions that took place in developing them became a critical starting point as the team worked through the thousands of smaller details to achieve their strategic goals. The starting framework for discussion created by the various white papers identified areas of concern and high priority so that team members could rapidly address the most significant issues before moving on to less critical issues.

Through the use of the crisis management plan and white papers, the TAMUG Crisis Management Team had a good organizational vision for what they were working

to achieve. The next step in the process was the identification of strategic objectives that were challenged by Hurricane Ike and developing processes to mitigate those challenges while striving to achieve balance for all stakeholders. As stated previously, the ability to graduate TAMUG students on time and keep others on track academically was a major objective of the university. “What we're talking about here is a business continuity plan that was strategic versus tactical versus a strategic plan for the institution, but our business continuity plan allowed us to continue toward our objectives and our strategic plan. If we had closed the doors, that's clearly not consistent with our strategic plan. If we don't graduate seniors in December, that's clearly not consistent with our strategic plan” (Interviewee #5, personal communication, 7-29-11). Although not written prominently with the campus crisis management plan, the obvious goal for many of the faculty and staff was to get day to day operations back to as normal as possible with students attending class and studying even if the classroom was geographically different from their original classroom. As such, the approach was to address those things interfering with the return to the “new normal” of student pursuing their studies in College Station- located classrooms (Interviewee #10, personal communication, 9-8-11).

Although the crisis management plan used a series of action plans to detail the preliminary steps to responding to a storm, particularly the tracking, evacuation, and locking down of the campus, the relocation and Business Continuity Plan carried too many variables to effectively outline action plans as part of the approach. Instead the TAMUG Crisis Management Team utilized broad goals to leave managers the flexibility to react appropriately toward those goals depending on the conditions of the crisis. The

white papers certainly detailed some level of action and who was the lead in various areas, but there was not a significant amount of detail in those plans. As one member described:

I think we had our business continuity plan with strategic stuff that we filled in with tactical plans. We had action plans throughout the thing and the biggest example of those occurring and the metamorphose of those are these documents right here, the white papers. But considering those as the tactical plans? That's it, right? No there wasn't much to it. So, it details who the TAMU lead is and at that point, we were setting up the leads and so on, and as we went forward we discussed what to do. But this structure was that these people would develop the tactical plans, right? So, these were the players that took these pieces and then developed the tactical plans. I developed tactical plans for example and there wasn't much wasn't done tactically in advance of the crisis (Interviewee #5, personal communication, 7-29-11).

The strategic nature of the crisis management team in developing a never before attempted relocation of students was effective. The TAMUG Crisis Management Team, working together with their colleagues in College Station, was able to effectively identify the strategic objectives and priorities broken down by functional areas. Although extensive action plans supporting those strategic objectives were fairly short on detail, the level of detail was sufficient to provide guidance and allow flexibility in developing the first detailed steps of the relocation process.

Customer/ Student Focus

*Understanding your Student and Stakeholders - The **Customer/ Student Focus** category examines how the organization engages its students AND stakeholders for long-term marketplace success. This engagement strategy includes how the organization listens to the voice of its customers, builds customer relationships, and uses customer information to improve and identify opportunities for innovation (The Quality Texas Foundation, 2009).* The following analysis and findings of customer/ student focus are derived from questions that are established by the Quality Texas Foundation- Engagement Level Criteria and outlined in Appendix I.

Despite the relocation, the TAMUG Crisis Management Team worked diligently to be consistent in delivering the programs and services to the students. In fact, the primary purpose of the relocation was to ensure the university could continue to deliver its programs and services to the students. The university employed several different approaches that focused specifically on understanding the student needs during the crisis. The first step was the initial outreach to the students through the webpage and text services. Although the information communicated through these measures was important, the emphasis in the approach process was focused on developing various conduits to communicate with the students so they would be informed and could participate in the relocation process. In developing the plan, the TAMUG Crisis Management Team knew the information processes were especially important in a crisis situation so establishing strong, multiple communication lines were a high priority of the plan, but the major focus of the plan was focused in one direction, pushing information out from the university through the webpage to its various constituents.

Although this approach was somewhat effective in distributing the initial information, it was fairly one dimensional. Such an approach had been sufficient in years past when the process for the students was simply to evacuate the campus with instructions to continually check the webpage for when to return. However with the implementation of the business continuity component of the TAMUG crisis management plan, a plan that had never been implemented previously, the need for two-way communication was necessary to permit the students to ask those important questions

that they found necessary to make the relocation decision for themselves. The plan did not allow for this contingency.

Another major tenet of the plan was the immersion of TAMUG students into the TAMU-College Station educational process. The approach was such that TAMU-College Station provided all of the necessary processes and services to allow their students success, and the infrastructure was such that even if the full enrollment of TAMUG decided to relocate, something that was considered a low probability in the plan, the existing infrastructure of TAMU-College Station could easily support the TAMUG student's success (Interviewee #1, personal communication, 7-18-11). As such, the emphasis of the plan with regard to the student focus was to expend efforts on the actual relocation of the students such as identifying housing and identifying vacant spots in classrooms, rather than rebuilding student services that were already in place in College Station. Furthermore, the plan detailed only the most basic processes for continuing the semester with little focus on the relationship between TAMUG and the students. For example, the plan originally called for assigning students to as many vacant spaces as already existed in on-going College Station courses with additional courses constructed as necessary to complete the student schedule (Interviewee #1, personal communication, 7-18-11). Although this approach would conceivably have allowed a student to continue with their semester, the difficulty of being inserted into all different, on-going courses with different faculty and different syllabi from what they started with would have placed an incredible burden on the students' ability to succeed. In the approach, the TAMUG student was simply assimilated into the TAMU- College

Station educational process while using technology to continue to communicate and support them. Very little consideration was given to how those specialty courses like the maritime coursework for cadets would be continued beyond the stated plan that any courses that were not offered in College Station would be reconstructed (Interviewee #1, personal communication, 7-18-11).

The approach was also lacking with regards to the assessment of the students' satisfaction of the process. Assessment had always occurred at the campus after any major event, whether an after action meeting for staff or some sort of focus group or survey for students or other stakeholders. In fact after each previous evacuation, the TAMUG Crisis Management team would reconvene to discuss the evacuation and whether the plan needed to be modified at all. As such, it is likely that the intent to assess after the event was always present, but there was no formalized plan set for assessment prior to the storm hitting. Furthermore, this event was the first time that the business continuity plan was utilized where assessments could have been conducted during the relocation to provide valuable input to campus administrators. Unfortunately this was not considered in the plan leading up to the storm.

A major focus of the development of the Business Continuity Plan was purported to be for the students to stay on track academically. This focus meant ensuring that those who were on track to graduate would not be delayed in the case of a storm or other major crisis rendering the TAMUG campus untenable for any amount of time. The approach was to relocate the students into the very successful environment of TAMU-College Station where the students could reap the benefits of the multiple services and

offerings of the large campus while they continued in their academic schedule. Unfortunately this approach fell woefully short in consideration of the success of the students once relocated into College Station courses nor did it consider the continued relationship of these students with TAMUG or the special requirements of many of the course offerings necessary for the students majors. Furthermore there was no assessment plan included in the approach to measure if the approach was working. Although the plan did outline the major goals for addressing major student needs, the student focus was lost in many of the missing details.

Measurements, Analysis, and Knowledge Management

*Managing by Facts to Drive Performance Improvement - The **Measurement, Analysis, and Knowledge Management** category examines how the organization selects, gathers, analyzes, manages, and improves its data, information, and knowledge assets and how it manages its information technology. The category also examines how the organization uses review findings to improve its performance. (The Quality Texas Foundation, 2009). The following analysis and findings of measurements, analysis, and knowledge management are derived from questions that are established by the Quality Texas Foundation- Engagement Level Criteria and outlined in Appendix I.*

Information is important in day to day operations, but it is critical in crisis situations. Whereas most organizations utilize data to track daily operations for organizational performance, organizations responding to crisis depend on timely information and data to survive. The TAMUG Crisis Management Team realized this and utilized several methods to get information to the decision makers, processes which evolved with the crisis. One of the TAMUG Crisis Management Team members spoke about the wide variety of data that they had to deal with it.

During the evacuation, you have continuous reports coming in. You know, you've got all of those actions that are taking place, and you do everything you

can to stay on top of all of it and – yeah, so you have people who are reporting that. All the way up and down at the local levels, you've got the same thing happening. You're having meetings. You're pulling everybody together and saying okay, you, contractor, what do you need. Physical plant director speaks up and says okay we'll take care of that, we'll get you the tape, we'll get you this, we'll get you that. You've got an extensive communication network by all the multiple means that are now available, you know, so that's going on and during the evacuation you're basically communicating by mobile phone. I can't tell you how many phone calls I got during Rita for 27 hours and nowadays, people text or are texting and doing all those other kinds of things plus at the unit level you've got phone trees. You're checking within the unit - you're checking on each other and things like that and that's pretty formalized. That's happening pretty much all at the same time.

During the actual storm you're relying primarily on public media. The use of our online resources which remember we've got - we've already setup computers up here in College Station - so we're putting out messages; there's an established schedule which you might modify if you need to, and you're updating, you know, every two hours or you updating a lot on the information out there on the web because then you've instructed everyone to go to the web to get that information. And that works, you know. That's a pretty solid system.

Then there's an awful lot of communication that's going on between top management, just as I'm sure there is going on through students affairs. You're checking on your staff and you know, all the people, and immediately after the storm, you're still using the public media. You use a lot of communication systems such as our e2Campus text system if you need to, you're connecting with city officials back in with the city and then you may ask that city, how soon are they letting people come back or how soon are they, you know, what's going on there. So, communication occurs between the Galveston command post here and the Galveston folks who stay behind right off the bat. We start talking to our police officers that are back in Galveston, and you know, what do you see, what's it like, what's going on and things like that. It was interesting (Superintendent) Worley who was on the ship through the storm said we actually had cars floating around the campus down by the boat basin down there. So we are asking him what kind of damage does he see, how does he come through it, how does he sustain stuff and things like that.

So while all of those communications are going on the TAMUG evacuees here in College Station and other evacuees you know, where are they? Phone lines are manned to take calls from constituents in the command post up here and if you're calling, you actually set up a whole system. During the College Station operations, again, you have communication by extensive means. You have a lot of meetings. You've got some written status reports that are usually submitted

electronically so you've got those pieces of information coming in. You're reviewing organizational performance and capabilities by considering all those above pieces of communication, all that above information that's coming in to you is really review. You guys, when your strategic operations team met, you're busy reviewing action towards the key leaders. You sought student feedback, you've got the students together and had forums and other informational things. You addressed parent and student concerns when they receive as well as you know, all those raised by all of the constituents. I remember you had an issue about parking in a church parking lot, and you addressed that. I mean, that – and so that was feedback, that was satisfaction, that was a constituent that you had to deal with.

But those are – that goes directly to that question, you know, and the fact that you were there and available and open to doing it and you've got decision makers that end up taking action to get it solved. The whole business around the lost textbooks and lost uniforms and things like that – I mean, that wasn't so much anticipated ahead of time but as soon as it was identified as a problem because you were listening, you took action and handled it. I felt the whole decision of how we are going to administer this fund and we had constituents that we had to connect with, to be sure we didn't step on toes went well because you were responsive to the constituents. You collected information and distributed the fund equitably (Interviewee #9, personal communication, 8-18-11).

Although the plan historically had always considered the information available before and during the evacuation, there was a much greater challenge with the implementation of the business continuity plan since it was truly a new proposed process with no previous baseline. Without having any experience to base what measurement and analysis was needed, the approach was lacking in detail as to what should be acquired as well as how and when it should be.

The plan was successful in expediting those processes once the necessary data was identified. The TAMUG Crisis Management Team was very intentional in the relocation being to College Station as so many of the processes were already aligned. In working to develop a method to analyze data as it came through, the TAMUG Crisis Management Team realized very quickly that many processes did not need to be

reinvented. Once the major aspect of relocating campuses was accomplished, many of the processes were the same processes used on the Galveston campus for years. In fact, the student information management system, financial accounting systems, and other systems were the exact same which allowed the team members to exert their efforts on solving the problems, rather than determining how to gather the data.

We identified a few key pieces of information that we needed to come up with like the percent showing up. And it was a pretty modest number honestly. And we didn't try to do the impossible like measure if we hit cost neutral or not. We could have spent an infinite amount of resources trying to do that unsuccessfully in my opinion. So we were pretty pragmatic about how much information we collected, if anything we collected too little, probably in retrospect that's almost always the case when you're trying to set up new systems. We mostly, as a strategy, used our existing data systems with new reporting as opposed to setting up new data systems.

I didn't build a bunch of new data systems. We used existing data systems different ways, and we wrote new reports against the data to generate new pieces of information like the percent showing up. But we didn't implement technically new automated data systems and very few manual data systems in the process. We mostly utilized existing data systems to come up with new pieces of information and our traditional pieces of information. So we didn't bring in a whole new database to do this, that or the other thing that I can remember. It may be the exception with real-estate stuff because it's there we're tracking, that's sort of external to me at least and probably to you, really. They may have done something new. I don't know, but TAMUG people didn't write. Now we built new reports on the local database to figure out stuff and so on. So my premise is in the IT side with automated systems is we largely used existing data systems and existing normal data that we collected to generate new pieces of information along with our regular reports (Interviewee #5, personal communication, 7-29-11).

The TAMUG Crisis Management Team also did not focus much on the distribution of information through the levels of organization in their original plan. Although this aspect was touched upon in the early versions of the plan that only dealt with the evacuation and return and even then only on a very basic level, the development

of the information chain wasn't developed in the latest plan. At the time of the storm, the white papers really only provided the initial framework to the major steps of the Business Continuity Plan. This was also true of the management of organizational knowledge of relevant information from workers, stakeholders, and students. A well thought out process included in the plan to secure this base line information would be extremely helpful in modifying the plan for future relocations. This was a gap in the approach.

The TAMUG Crisis Management Team realized the value of data in their approach to the crisis management plan. Years of experience of dealing with vast quantities of data during previous crisis response had forged their approach moving forward. Multiple, well-practiced systems of acquiring data immediately during the crisis event and then the intentional relocation to a campus with familiar systems to enable the easy acquisition of other data facilitated the knowledge management of the team. The only shortfall was the lack of a detailed plan for distribution of the information throughout the workforce, a problem that resulted from the many unknowns of the never attempted before Business Continuity process.

Workforce Focus

*Developing and Realizing the Full Potential of your Workforce - The **Workforce Focus** category examines the ability to assess workforce capability and capacity needs and build a workforce environment conducive to high performance.. The category also examines how the organization engages, manages, and develops your workforce to utilize its full potential in alignment with the organization's overall mission, strategy, and action plans. (The Quality Texas Foundation, 2009). The following analysis and findings of workforce focus are derived from questions that are established by the Quality Texas Foundation- Engagement Level Criteria and outlined in Appendix I.*

For years, the TAMUG Crisis Management plan addressed its workforce with very similar processes as the students in the case of a hurricane. Of course, the crisis management plan's primary purpose and emphasis was for the health, safety, and security of all of the faculty, staff, and students. The very first step in releasing the students before the city of Galveston called for an evacuation was intended to get the students home and out of harm's way before traffic could gridlock the evacuation routes. In addition, this was done as soon as possible so as to allow faculty and staff to lock down their offices and the campus in general allowing them to safely evacuate as well (Interviewee #9, personal communication, 8-18-11). The process of locking down the campus was a well organized process that had been honed over years of practice. Once the actual call for evacuation was made, each representative of the TAMUG Crisis Management Team had a list of responsibilities in the plan to ensure the safety of the students and security of the campus. Those responsibilities ranged widely. From the coordination of the student community leaders in the residence halls going through each individual student room to ensure that all students had cleaned out their refrigerators and balconies and departed campus or the Facilities Service staff coordinating the pickup of important human resource and finance files and various safes from around campus for relocation to the ship, there were a number of things to be done. The list of responsibilities covered all aspects of preparing the campus for the impending storm, and required participation from many in the workforce (Interviewee #9, personal communication, 8-18-11). Fortunately these responsibilities were fairly well dispersed among the campus staff to ensure that no individuals were left with a disproportionate

amount of work to complete before being able to leave campus with plenty of time to secure their own home and evacuate their families from the island. Safety of the faculty, staff, and students was always paramount to the administration not only through the evacuation process but also through the entire crisis response. As one TAMUG Crisis Management Team member remembered:

I would say this of the senior leadership at the time, first and foremost and this is true from Dr. Loftin to Rodney, to other senior leadership. And I would say that it was even true of Russell Cross who I was sitting in meetings with, and I would have to assume it was true of President Murano. Their first and foremost concern was the welfare of the homes and the family and not how's my employee doing or are you ready to work hard? It was how's everybody doing? I think that was critical in helping all of us feel like... number one, we're all in this together; number two, we're all going to do what we need to do get it done and number three, nobody's going to ask questions if somebody steps out for a little bit of time because of the stress. And there were a lot of tears shed and slang used at different times, and it wasn't ever seen in a bad way. I think it was all an understanding that we're in this together and we're here and as a campus we're committed to making it work as long as you senior leaders understand that we have some real concerns of our own (Interviewee #2, personal communication, 7-22-11).

The plan had also called for the continued use of the webpage by the faculty and staff, and this process was emphasized to all faculty and staff at the beginning of hurricane season and then again with any evacuation announcement. The plan also established phone trees which were updated prior to each hurricane season for use in contacting every employee to ensure their safety and security in the case of a direct hit. This approach proved especially effective after Ike as many had evacuated to areas of the state without electricity for extended periods of time, rendering the campus webpage useless to many. Through the phone tree, every single TAMUG employee was eventually accounted for including one faculty member who had been med-evacuated

out of Galveston just before the storm (Interviewee #7, personal communication, 8-9-11).

As successful as the TAMUG Crisis Management Team's approach was in ensuring the safe evacuation of all campus stakeholders, the plan was woefully deficient in its workforce focus beyond the evacuation. The Business Continuity component of the plan had only been developed over the previous year and provided the framework for how the relocation of the students would occur, and certainly an element of the relocation was to continue the university's business and prevent any of the workforce from losing their jobs as a result of being unable to continue. However, the plan offered no detail as to what should occur with the faculty and staff beyond the very few who were identified as critical to the relocation effort or directly involved in the campus repair. Although the Business Continuity Plan was to be implemented and utilized for several months until campus could be repaired, no part of the plan detailed what would occur with the 90% of the employees that were not identified as critical to the relocation effort – how TAMUG would continue to keep them engaged, assess their satisfaction with the crisis response, or even utilize their abilities to benefit the campus in the restoration process. In its most recent form prior to Hurricane Ike striking Galveston, the approach of TAMUG was purely toward developing a plan to keep the students' semester going in College Station with minimal to no attention dedicated to what that process meant to all of the faculty and staff that were not directly needed in the relocation process.

The TAMUG Crisis Management Team were extremely strategic in developing the Business Continuity component of the crisis management plan after realizing the destruction that other storms, particularly Katrina and Rita, had wreaked upon the colleges and universities in their path. Devastated enrollments coupled with soaring costs of repair often resulted in massive layoffs to the workforce resulting in a secondary crisis for many of the workers who had also been personally impacted by the storm. As a result, the approach of the TAMUG Crisis Management Team was to develop a plan that focused on keeping the faculty, staff, and students safe while also developing a plan to preserve the university and with it the jobs of its workforce. Unfortunately the approach did not provide the detail as to what to do for 90% of its workforce between the storm strike and the return to normal operations.

Process Management

*Designing Work Systems to Deliver Value to Students and Stakeholders - The **Process Management** category examines how your organization designs its work systems, and how it designs, manages, and improves its key processes for implementing those work systems to deliver student and stakeholder value and achieve organizational success and sustainability. Also examined is an organization's readiness for emergencies. (The Quality Texas Foundation, 2009). The following analysis and findings of process management are derived from questions that are established by the Quality Texas Foundation-Engagement Level Criteria and outlined in Appendix I.*

As the business continuity plan was developed and added to the crisis response plan, one of the key considerations was the uniformity of processes. As a satellite campus of Texas A&M University, TAMUG utilized the same student database system, financial aid systems, financial management systems, procurement and purchasing systems, and many systems. Although there was understanding that all of the processes

would not be identical and seamless in transition, the early counterpart sessions spent quite a bit of time looking at what the major issues were in each functional area and how each functional process would work to assimilate the TAMUG students. TAMUG was committed to transplanting as many of its processes within the TAMU-College Station systems as possible so that new processes would not have to be developed and learned during the crisis. To a great extent, they were successful, but not all processes were easily transferable to TAMU- College Station.

We tried to move systems with us. Luckily, because we're part of this campus here in College Station, you see the records, employee records, payroll, all those things were basically the same, and there was no problem at all making that continue.

What was difficult was taking processes which you needed but were unique to Galveston, and relocating them here or adapting them to a changed circumstance right here, and we gave immense power to the lowest level of supervisors to be able to do that sort of thing. There was no way that I, or my deputy could micromanage how you handled a residence life issue for example. In the maritime area, we really had a problem with the maritime work. We could do only so many laboratories here. We had to get them down there again to access some functions there, and that was very difficult. We used stuff from the Port of Houston for example which was very difficult with security and transportation processes, but we had a willing faculty and staff who just dug in and made sure that we could get people to what they had to do. And so by the end of the semester, the students got what they had to have to stay on track to get their license requirements (Interviewee #11, personal communication, 9-9-11).

The plan assumed once the students were relocated to College Station and provided housing and a course schedule, normal college processes would take over – attending class, studying, attending extracurricular activities, and other typical college activities. TAMU-College Station was of a size where its current infrastructure of parking, dining centers, bus systems, libraries, and recreational facilities could easily assimilate an additional 2000 students if all students decided to relocate. As such, the

plan did not provide much detail beyond the framework of how the major processes would work. As one team member described it:

I think in that case the key was the plan that we already had. We knew that if we were gone for X number of days that these were the things that we needed to worry about. Like housing, dining, parking, so I think we had a rough idea of what we expected to do with all of those. You know the scheduling thing I think turned out a little differently than we expected, but it goes back to us making that decision to keep them together.

I don't mean to over emphasize that, but that was pretty key decision it shaped a whole lot of what we did. I don't know that we were aware that it was such a key decision when made it. And I certainly don't know that we would have made that decision had we known how many students we were bringing up. I'm glad we did. I don't know that I would change it, but that decision probably ended up having more importance than we would have initially expected (Interviewee #4, personal communication, 7-27-11).

Since the discussions did not go into great detail concerning each process, one of the greatest benefits to the development of the framework was the discussion on how things might work and the relationships that developed as a result of those discussions. There were certainly tentative agreements made, but with so much unknown about the crisis might unfold and how many students might relocate, several crisis team members felt the broad framework, detailed discussions, and resulting relationships were as beneficial as any detailed prescriptions of work processes.

One, we used our existing systems where we could. That's the biggest thing and we had planned for having continuity of systems like email for faculty and staff that we run here. We had setup the website which we're running. We had it setup up there already. The other thing is that we had already built- pretty successfully with one department exception- good relationships between departments such that we were able to move in with them. You guys have good relations with student services. I have good relations with CIS. The one failure was in the area of academics in that regard.

So I don't think you can ever underestimate the relationship building we had already done before this. The trips you and I and Grant all took to College

Station, Donna and Loftin meeting with the president, all of us, all of that stuff that we do. Some of them consciously just to touch base. That stuff was invaluable. The committees we've all been on up there so we know people because we've worked with them on committees up there even though we had TTVN and a drive up and all that stuff. That stuff was invaluable when we relocated. So, previous relationships that we had built were a key factor in how we eventually ended up doing many of our processes (Interviewee #5, personal communication, 7-29-11).

Simply put, the goal of the plan was to utilize the similarity and current alignment of various processes between the campuses, develop a rough framework and understanding as to how further problems could be addressed, and then deal with any unusual circumstances through the strong relationships that were developed while creating the framework. This plan allowed enough infrastructure and guidelines but also enough flexibility to be able to appropriately respond to the unexpected issues that often arise in a crisis response, especially in one that had never been attempted previously. The one area where this plan suffered is the lack of forethought toward developing key performance measures to indicate success of the development of appropriate work processes. By integrating the students into College Station's processes so completely, there was not a plan for assessing performance beyond what College Station already did. Ultimately these processes for assessment were developed, but having them as part of the plan would have increased their effectiveness.

Summary

A number of factors influenced TAMUG-Crisis Management Team's approach in the development of the TAMUG Crisis Management Plan. For one, evacuation, return, and recover portion of the plan had been exercised repeatedly in past storms with continued assessment and process improvement implemented to further increase its

effectiveness. Secondly, the impact of recent storms, Hurricanes Katrina and Rita, had informed the team as to the devastating possibilities if a similar storm were to strike TAMUG. This realization led to the development of a Business Continuity component to the plan that involved the relocation of the students and business operations to College Station while the TAMUG campus was repaired. This approach had never been attempted as far as the TAMUG Crisis Management Team was aware which created some difficulties in determining base lines or a model to follow in the development of their plan. There were many unknowns that required assumptions being made in the development of the plan, but a foundation was eventually established upon which TAMUG-Crisis Team Members and their TAMU-College Station counterparts could build.

The foundation upon which much of the approach centered was that TAMU-College Station with its 50,000 students had the infrastructure to assimilate the entire 2000 student body enrollment of TAMUG if necessary, and that the emphasis of the Business Continuity Plan should center upon those issues arising from the actual relocation. As students would be placed in vacancies in current College Station classrooms, the primary issues needing to be resolved would be identifying housing for relocating students, transferring over the parking, dining, and other services from Galveston to College Station, and creating those specialized classes of TAMUG that were not found in College Station. The alignment of many of the processes between the two campuses would further ease the transition with functional area counterparts working together to identify priorities and challenges in the assimilation process.

This approach was effective in many ways as it established a framework to guide discussion in the case of a crisis, but also strengthened the relationships between those counterparts who would need to work closely in the case of a relocation. These relationships and agreements would prove critical during the rapid fire environment of a crisis. In contrast, there was not significant consideration given to most of the other needs of the students or the workforce. Lastly, no assessment plan was included in the approach as much of the plan was formulated as more of a framework to guide later operations.

Key Findings

1. The TAMUG Crisis Management Team had effectively developed, exercised, and improved upon their crisis management plan over multiple years to where the processes in place were well communicated and executed by faculty, staff, and students. The highest priority of any crisis management plan is the safety and wellbeing of the faculty, staff, and students, and the TAMUG Crisis Management Plan reflected this. The campus was efficiently secured against the storm and all faculty, staff and student were evacuated well before the storm struck.

2. As part of the continuous improvement process, the TAMUG Crisis Management Team looked external from themselves to identify problems at other campuses resulting from storm strikes. It was this realization that lead to the development of Business Continuity component of the plan less than a year before Hurricane Ike was to hit the campus, possibly saving the campus.

3. The approach was very intentional in relocating specifically to College Station where the alignment of systems and processes would save much needed time in the event of a crisis event. Furthermore, the infrastructure of TAMU-College Station would be able to support all of the needs to the TAMUG students once the relocation was accomplished.

4. The relationships and framework of agreements were critical in the development of the approach. Many of the two campus' counterparts already enjoyed collegial relationships that were reinforced by the TAMUG Crisis Management team approach. The ability to work together effectively during a crisis often has a great impact on the success of the crisis response.

5. Beyond the safe evacuation of the workforce and the preservation of employment that would hopefully be achieved as a result of the Business Continuity Plan, the workforce were not adequately addressed in the approach with no detail given as to what would happen with the 90% not involved in the relocation of the students or repair of the campus.

Research Question 2

Research Question Two inquires as to what strategies did Texas A&M University at Galveston deploy in applying their approach consistently and ensuring the approach was utilized by all appropriate work units? When considered through the Baldrige framework, deployment refers specifically to the extent to which the approach is applied in addressing areas of importance that are relevant to TAMUG, is applied consistently,

and is used (executed) by all appropriate work units (National Institute of Standards and Technology, 2011). In the approach to crisis response, the TAMUG Crisis Management Team had to make a number of assumptions as the relocation of a university student body in mass had never been attempted before. As a result, no one was sure of the thousands of variables that would exist in this particular crisis further affecting the implementation of the plan. The strategies used in the deployment of the plan reflect the intentions of the plan when faced with the environmental realities of the crisis.

Leadership

*Creating and Sustaining an Environment for Excellence - The **Leadership** category examines how the organization's senior leaders' personal actions guide and sustain the organization. Also examined are the organization's governance system and how the organization fulfills its legal, ethical, and societal responsibilities and supports its key communities (The Quality Texas Foundation, 2009). The following analysis and findings of leadership are derived from questions that are established by the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) and outlined in Appendix I.*

The TAMUG Crisis Management plan clearly identified and empowered the leadership structure to manage the crisis well before Hurricane Ike landed. This structure was not only important in identifying the critical personnel to initially respond to the crisis, but also in building and formalizing the relationships with their TAMU-College Station counterparts who would greatly facilitate the relocation process. The initial plans and agreements detailed in the white papers provided a valuable framework to the initial discussions in the relocation process, but there were problems in the actual deployment. For one, the white papers were theoretical in nature as neither campus had ever attempted something of this scale before. Many of the initial suppositions such as

number of students willing to relocate were drastically wrong, leading to problems in the implementation of the plan. As one member recalls:

The white papers beforehand set our performance expectations but they were wrong. They were very, very wrong and that became part of the issue too. As far as in hindsight you can see things and even today with the parameters constantly changing, if it were to happen again today, I am not sure that I could guess again and be correct. I think setting performance measures in some ways was...well, I don't know whether it was a good or a bad thing.

Our estimate before that storm ever hit was that we could retain sixty percent of our students. Sixty to sixty-five percent was what we thought if we start the fall semester here and then we really went into a bad hit. With all the students that have stuff going on and this and that and have to relocate, we'll take more than half because our students are Aggies. They are going to come with us. They're going to be solid. We're going to go sixty, so you know we can't go into that sixty, sixty-five maybe range and when you get up there, we took ninety-two! There are a whole lot of things I would have done differently with ninety-two percent than I did when I had in my head sixty percent. But you didn't know any of that until much later and then once you are too far down you couldn't change your model, because you had already started down that train track. So the sixty, sixty-five percent was way off (Interviewee #1, personal communication, 7-18-11).

The structure that had been so successful in identifying the key players in the planning process also needed modification. Within a few weeks of the decision being made to relocate, the Galveston staff augmented the TAMUG Crisis Management team with the development of the Strategic Operations Team to better identify and respond to the myriad of issues and decisions that occurred on a daily basis. Different from the TAMUG Crisis Management Team in that it included many administrative department heads and front line individuals and dealt with more day to day operational issues, the organization brought together a team who could more readily respond to issues facing the staff and students in College Station. Originally meeting daily each morning to

address issues, eventually the group reduced the schedule to twice a week and then later to once a week. Due to its effectiveness in bringing people around the table to make operational decisions for the campus, the Strategic Operations Team currently still meets at TAMUG twice a month.

The plan itself also needed additional enhancements in its deployment to further communicate the organizational vision. The original plan, through the various departmental white papers, provided a framework of agreements and understandings as to how the relocation would work. Without having any past experience in conducting such a relocation, the goal was to provide general guidance without getting too mired in the details, so as to provide the staff the flexibility to appropriately respond to the unique dilemma they faced in the relocation. As the crisis unfolded, further guidance was needed by the various staff operating under the very broad crisis response plan. The solution came in the form of a set of guiding principles to undergird the crisis response plan.

Within the few first meetings of the deployment of the plan, a set of guiding principles were developed that clearly established the values and to a certain level, the performance expectations for the staff and faculty. The commitment to continue the semester without additional costs to the faculty, staff, and students or allow students to take their funds and apply them to the following Spring semester, to keep faculty and students together, and to maintain the highest quality of academic experience were not easily accomplished, but these principles became a major component of the organizational vision. Although challenging at times, the members of the TAMUG Crisis

Management Team frequently referred back to the principles to guide them, and the values set forth by the principles were considered at every moment in their day-to-day decision making.

So, what we did was we had these guiding principles that really pretty much allowed us to make decisions. If it didn't fit in here, we didn't make that decision. And that was pervasive. I mean from travel reimbursements to cell phones overage usage, whether or not they could be reimbursed for that, well, we said yes because it depended upon the principles... and I have examples of that. Just some things we want to say, from the financial point, these kinds of things were looked at as well. For example, Brad McGonagle he was on his phone 99.9% of the 24-hour day and it's his personal cell phone and he gets a cell phone allowance. We didn't cover it. So we allowed anyone who felt that they had incurred that kind of expense to turn in a form with backup documentation and then we made the decision as to whether they would get that overage or not. In fact, for the most part everybody was very honest, and you could tell those were the kinds of people that were using their phone. So, it was not a problem. So it was that sort of thing. We did not want even our staff to incur any additional personal expense associated with the storm other than losing their dang house or whatever else they lost (Interviewee #6, personal communication, 8-2-11).

These guiding principles were also important reinforcement to the environment for legal and ethical behavior called for by the leadership. Although not formally outlined in the plan, the leadership was very aware of the many opportunities for illegal and unethical behavior during crisis situations, and on multiple occasions stressed that employees should be as transparent as possible, document all decision making, and not engage in any behavior that could even be perceived as being illegal or unethical. The guiding principles, which were based on the good ethics of continuing to offer high quality classes with the faculty they had been promised for no additional cost, further reinforced TAMUG's effort to do the right thing in all areas. These directions and principles, based on a solid culture of ethical behavior resulted in no instances of illegal

or unethical behavior by any TAMUG employee during the course of the crisis. One member stated the importance of the culture of ethical behavior:

And that was a big deal... I think that goes back to personal values because it also comes from being in the school of (Former Vice President of Student Affairs Bill) Hearn, I mean you know that. Because there was ample opportunity every second of the day during that time to engage in activities that were illegal, unethical, or immoral because at the beginning, there was no oversight at all. I mean it was very much open society in terms of we were our own entity out here. But as everybody knows in events like this- there are a lot of unscrupulous people who trying to take advantage of the situation, and we were approached by several contractors that wanted to come work with incredible offers -what they could do for us and all those kinds of things. And I think a solid leader who has solid values and is committed to the task at hand does not have time for other stuff. I know we had several opportunities where we could have cut corners on things but we just didn't do it. In terms of expenditures, when you have someone like Kathy Mull managing your account, you have to account for every penny. In post- Ike when the state auditors came in to look at the money we spent, we could account for every nickel we spent. And I knew that, and I was very comfortable with the auditors coming in because I knew we were totally clean. Now, did some of the decisions I made cost us money? Well yes, but having a construction firm like Vaughn in here, who is also a high level, highly ethical, high character value company and they're known for that. They weren't going to cut corners, but the people they had on the ground down here were the same people who built our Ocean and Coastal Sciences building, and I knew we were going into a long term relationship with them. But, yeah there is all kind of opportunities to engage in unethical and illegal activities. I mean absolutely, but I don't believe anyone ever did anything unethical. Even when we did the right thing in allowing our people who needed shelter to live in the residence halls, we looked at the tax implications and made sure everything was legal. Sometimes, the time it took to verify was kind of a challenge because I would much rather make sure someone has something to eat and worry about having to pay taxes later but it was always the right thing to do... (Interviewee #3, personal communication, 7-20-11).

In carrying their culture of ethics with them in the relocation, a broader discussion developed concerning the importance of preserving the Sea Aggie culture and identity. Chaffee and Tierney (1988) state, "An organization with a coherent identity ...has a strong sense of what it stands for – so strong that it is apparent to observers, newcomers,

and old-timers alike. The identity is structurally consistent (p. 27), and that institutional identity and culture result through the intersection of three dimensions - structure, environment, and values. Hurricane Ike had already seriously impacted the university removing it from its home campus and forcibly changing many of the structural and environmental factors that distinguished the university. As a satellite campus of TAMU-College Station, many of the Aggie values ran deep through TAMUG's students, faculty, and staff, but the leadership had to seek out strategies to preserve the Sea Aggie culture and identity. For one, the leadership abandoned the original concept developed in the original approach of integrating the TAMUG students into the TAMU-College Station courses. The structure of coursework and environment of TAMUG faculty and classmates emphasized that TAMUG was still in operation despite being located 150 miles inland. This connection was invaluable. The same was true of housing the students together and utilizing TAMUG community leaders to provide oversight. The TAMUG Student Life Office also pushed TAMUG Intramurals, TAMUG student activities, and for multiple trips to Galveston to further structure the students time and emphasize the feeling that the current situation was temporary, and that "they were all in this together" (Interviewee #1, personal communication, 7-18-11). The Sea Aggie culture was also emphasized through extensive and systemic communication discussing the values of the relocation effort. It was extremely effective. As a student, Betsy Bremer stated in the After Action Review (located in Appendix C), "I think we definitely kept our identity as Sea Aggies, because we did keep the same classes and we

were living with people in groups. I don't think there was any time that you had to really mix with College Station people.”

Along with a commitment to preserve the culture, the university was also committed to assessment and organizational improvement. In deploying the crisis management plan, the campus benefited greatly from the campus leadership's prior commitment to organizational performance improvement where every prior crisis had been dissected through debriefings and after action reports. Although each crisis is unique in a sense, there were enough similarities between hurricane preparations and evacuations that the campus responded quickly and effectively to evacuating the campus prior to Hurricane Ike's landing. Campus leadership ensured personnel knew what their job was and that they were trained effectively in accomplishing those jobs based on the past experiences of the campus. Unfortunately in the Hurricane Ike crisis, whole new aspects of the plan that had never been attempted were put in place. Although table top and other simulations had been coordinated prior to the crisis, many of the plans had been attempted in theory only and prevented greater challenges to deployment. In those situations and particularly with the business continuity/ relocation aspect of the plan which had not been attempted previously, new organizational structures were put in place to facilitate efficient and effective decision-making. First, the daily meeting of Galveston and TAMU- College Station counterparts brought an incredible amount of broad and varied expertise together for frequent meetings to address problems holistically. One of the participants explains the critical nature of the meetings:

Communication, team building, and this was a classic case where we built a team on the fly, a team that didn't exist before, that those afternoon meetings were a key team, and it was a conglomerate team that's never met before or since. That team was the key to making it happen from an operational perspective, I think, because after that, they had the marching orders, there was coordination which they don't normally have up there... So up there it is very unusual when you have this level of coordination. That's not the way they normally work. Their normal mode of operation is turf... We got to understand that, and they stood up in a way that they did--it's counter cultural for them, which shows a lot about Cross, a lot about the people in those positions that stood up and did it and none of them had much to gain from what they did. I mean, and they don't gain much from what they--we gained a lot but you know I don't think you can argue that they did... Even though the big Aggie culture and social norm is clearly there on a service level and like their response to helping out with Katrina and helping out with the other people and stuff, that's very consistent with the Aggie culture. They stepped up much more than other institutions did, honestly, and I respect that.

But yeah, that's my observation that there were some things that happened that were different than the day-to-day business in the course of this. When you do stuff different from your normal business, somebody has got to make it happen. That doesn't just happen. Had Cross not taken a strong control of those meetings, listened to what Loftin asked for and made it happen, it wouldn't have happened. What happened up there is what's supposed to happen with a FEMA command center. That's how incident commands supposed to work.

But doing it right involved not just doing what you normally do the same way, it involved doing some things differently than they normally did, and I guess that's my real point there. That's what the leaders did. They shifted gears. They said, "This is a different situation. We can't do this with business as usual." Then they created an effective team and process, both team and process. We met every day at 4:00 until we didn't need to anymore. Big deal, a lot of people stayed past 5:00, which is a cultural issue too. A lot of people have dropped a lot of other stuff at 4:00 to come to those meetings, big deal up there. These were important people, the players on campus. We got the key leadership for ten percent of the day, fifteen percent of the day, every day for two weeks. That's a massive amount of capital from a leadership perspective. That's what made it work in my opinion. I don't think it would have happened without that level of commitment and leadership, not in the timeframe that it happened (Interviewee #5, personal communication, 7-29-11).

Furthermore although the crisis environment was not very conducive to organizational improvement, the campus leadership realized that collection of data describing the event

and response was critical to later being able to document the decisions made for future improvement. As a result, a number of assessment devices and after action reviews were implemented to capture the information for processing and incorporation into the crisis plan to address future relocations. One such example is included in Appendix V which contains the transcribed discussion from the largest of the After Action reviews.

Although plans were in place to collect and review the data for future crises, the current crisis management plan had identified the primary initiative as keeping the students on track academically with particularly those seniors on track for graduation in the Fall and Spring. During the deployment of the plan, the TAMUG Crisis Management Team rapidly realized that the employees were just as valuable of a constituency. Although the plan did not explicitly call for their consideration, very quickly a team had to be assembled to arrange for housing for those faculty and staff relocating to College Station with the student population as well as make arrangements for those employees remaining behind in Galveston, many of whom were critical to the campus' recovery yet now had no place to live. Many of the TAMUG Crisis Management Team members refer to the role of TAMUG as one of the larger employers in the Galveston community as one greatest impacts on society, and yet it was not included in the plan leading up to the hurricane. Once the storm had hit, the leadership team committed to keeping its employees employed and returning operations back to Galveston as soon as possible.

Here is where I think the city of Galveston could've seen how we helped, what we did and how it impacted the city of Galveston. We did it. We lost one employee as a result of the storm, and if I remember correctly, that was a voluntary separation due to that employee having a family, having a mother or a

father who was ill, and they needed to take care of their family. So, that wasn't... that certainly could have happened to anybody. We got the campus back up to speed during the fall semester, we were back here in Spring and through all of that we lost one employee, and we both know there is a larger institution on the island that had to let people go. And I think... I still to this day wish the city would see what we were able to pull off. And not being critical of UTMB, but understanding that we did a lot with very little. And we came back and we began contributing back into the local economy as quick as we could. So, for an impact on society I'd say that's a local and that's not society, but a local society impact. I think that's huge. I mean, we kept ticking along when the rest of the island was still in serious straights and trying to get back on its feet (Interviewee #2, personal communication, 7-22-11).

A final leadership approach that was pursued by the TAMUG Crisis Management Team was the identification of key communities for organizational involvement and support. Once the relocation process was initiated, the TAMUG Crisis Management Team quickly realized that the dynamic had changed from previous storms. The main campus of TAMUG would be restored much sooner than many of the organizations of Galveston. The team looked very quickly toward various constituencies in Galveston to assist in whatever ways possible. Assistance to others in the Galveston community included providing classroom and residence halls for the University of Texas Medical Branch, classroom space for the Sunshine Center, lodging for Galveston Independent School District teachers, and employing local contractors and workers to work on the campus (Interviewee #3, personal communication, 7-20-11). Furthermore an initiative was introduced that brought Texas A&M students to Galveston to view the destruction and help out the citizens in any way possible. Huge donation drives were developed and managed with assistance from TAMU- College Station and multiple day long trips to help the citizens of Galveston were organized to great success. As one participant recalls:

Well, clearly the big event that Spring was an opportunity for our campus to give back to the city of Galveston and maybe even more than just the city of Galveston. Obviously you know, the big event is the biggest one day community service event in the nation, and clearly a lot of folks in the city of Galveston still needed tremendous amounts of service. And so we had as I recall - and actually we did a lot of this in the Fall - I know in the Fall we had a combined project where College Station and Galveston students came down and contributed to the island on a few occasions and then again at the big event in the Spring. I don't remember, but I know we certainly had our regular group of students go out, but whether we had folks come down from College Station in the Spring to support that activity or not I don't recall, but going out and clearing furniture out of homes or cleaning up yards or rebuilding fences or tearing out sheet rock or whatever the case would be so there was an impact there (Interviewee #2, personal communication, 7-22-11).

The Crisis Management Team demonstrated strong leadership in a number of ways in the deployment of the crisis management plan. Realizing that the plan was fairly broad in its approach, a stronger organizational vision with guiding principles was provided to assist the frontline managers in the decisions. Secondly, they realized the lack of emphasis on the student's success as well as workforce engagement and made significant decisions to address those issues. The same was true of the Galveston community where the leadership reached out to offer assistance.

Strategic Planning

*Developing Strategic Objectives and Action Plans for Competitive Advantage - The **Strategic Planning** category examines how the organization develops strategic objectives and action plans. Also examined are how the chosen strategic objectives and action plans are implemented and changed if circumstances require, and how progress is measured (The Texas Quality Foundation, 2009). The following analysis and findings of strategic planning are derived from questions that are established by the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) and outlined in Appendix I.*

The TAMUG Crisis Management Team had been extremely strategic in developing their crisis management plan. Although the plan had been fairly responsive

and based on campus experiences with crisis for many years, the devastation caused by Hurricane's Rita and Katrina to other institutions caused the TAMUG Crisis Management Team to revisit their own plan through a much more long-term, strategic lens. The end result had goals that were aligned with the university's own strategic goals concerning enrollment and service to the students. The deployment of the plan was also fairly successful in that the plan set many of the broad goals and identified many of the key participants to initiate a rapid response from the campus. As one team member states:

I think you have to say that our whole strategic planning if you step back – step back from crisis, all the things that we do with reference to strategic planning are pretty relevant. I mean, they go back to that whole business of your mission and your expectations and your strategic objectives and things like that; during the crisis what you're trying to do is to maintain that continuity and to be able to continue your mission. So yes I think our whole hurricane plan is then an off shoot of strategic planning, so I would say definitely yes, we've got that plan. We've got a written evacuation plan that has existed for years, a written business continuity plan has now been developed and like I said, I think that came about pretty much after Katrina and Rita. We've got the plans, they are annually reviewed, if not more often than that. I mean, if you think about even the meetings that you've been in on and how often we go over those things, the key players start with the executive teams at both campuses...and believe me I heard a lot of discussions about hurricane planning up here when I was attending both Bob Gates and you know, later Dr. Loftin's executive groups up here. Planning involves a campus leadership all the way down to the unit level and then it also involves all the things we do as far as our orientations and our training. You always have some leadership and hurricane planning and training for your Community Leaders and for the Corps of Cadets leadership and account managers. The outreach counselors get briefed on it, and all of those you know, it's pretty strategically built into pretty much every operational aspect of our campus (Interviewee #9, personal communication, 8-18-11).

Once deployed, the crisis management plan provided the long term broad goals to work toward with the white papers providing much of the detail as well as longer and shorter term objectives to accomplish. The white papers were critical in identifying many of the

key issues to be addressed initially and were incredibly important is outlining a plan of attack for the various departments to coordinate their work. As helpful as they were, several shortcomings to the plan were also identified in their deployment. For instance, the TAMUG Crisis Management Team had no way to determine how many students would relocate with them once the decision was announced. All planning was based on somewhere in the 60% range, and the plan was developed accordingly. When actually deploying the plan and discovering that the number was approximately 90%, the team discovered that many of the plans could have been significantly different. As one member stated, “It would have been much easier to copy the Galveston schedule of classes to College Station and drop those few students that weren’t coming, rather than rebuild an entirely new schedule based on 60% showing and then keep adding and modifying the class schedule and class locations. We lost a lot of time reworking that schedule multiple times before it was all said and done” (Interviewee #7, personal communication, 8-9-11).

As the TAMUG Crisis Management Team deployed the plan, the large leadership group of TAMU- College Station and Galveston counterparts could work from that operating document to develop other broad strategic policy like the guiding principles. One example is the quick turnaround in starting classes in College Station so as to preserve students’ ability to stay on track for the semester. One of the very first strategic goals was to graduate those students in December who were originally scheduled to graduate in December (Interviewee #7, personal communication, 8-9-11). Once the broader long-term goals were determined, the larger group which had been so

critical at the outset of the crisis, became more cumbersome to developing the numerous shorter term priorities. At that point, functional groups begin to work in their different areas of focus to determine the action plans necessary to accomplish their more immediate goals like developing the course schedule, securing classrooms, or securing housing for the relocated faculty, staff, and students. In many ways, these counterpart teams became very focused and operated in functional silos as they made the many rapid decisions and identified the longer and shorter term goal that were necessary for their respective areas. Eventually the interim Strategic Operations Team was developed to further focus on the short term action plans and possibly reduce some of the silo decision-making.

And so I think that the emergency plan was the foundation, you know in the beginning stages of our strategic plan in a crisis situation in this case weather. And then SOT (Strategic Operations Team) was, if you're going to be strategic, because you know while we had that big group that Dr. Cross convened that group was concerned with policy. The focus of that group was "give us a report," so we had to recognize that yeah, we are here and you're treating us well and all of that, but we know how to run Galveston. We know what our students need. So we developed a new group and each one of us participating in that group, I believe the first group was called Interim SOT, because we pulled people in who would not be there a long term when we got back the Galveston, but who needed to be in that room during the crisis to get things done (Interviewee #10, personal communication, 9-8-11).

The interim SOT, and even the groups before them, realized that after the initial evacuation and relocation, much of the strategic objectives at this point was directed at making things as normal as possible for the students so they could get back to the business of being a student. The team worked diligently to get the logistics resolved so classes could begin less than two weeks after the initial evacuation. As the cost of relocating, especially after losing possessions in a natural disaster, could further preclude

students from continuing the semester, the cost neutral solution was determined, and additional funding was secured from places other than the students. Donations were disbursed to allow students to replace books, uniforms, and belongings lost during the storm. Keeping the students with the faculty with whom they had registered as well as their classmates was another strategic objective that was achieved. This strategic objective of returning to the “new normal”, a term frequently used by the TAMUG Crisis Management Team, as soon as possible was pervasive through all of the activities and goals of the Galveston staff. At the same time, the workforce in Galveston were pushed to bring the campus up to speed and identify additional housing so that the students could truly return to normal by attending classes once again in Galveston (Interviewee #3, personal communication, 7-20-11). The efforts of the staff during this process was not altogether different from what many did on a day to day basis prior to the crisis.

In the effort to accomplish many of the strategic objectives of getting the students back into their daily routines, one of the areas that the TAMUG Crisis Management Team struggled with was the development of shorter term action plans that could be codified and measured. Certainly action items got accomplished, but the number of items necessary to accomplish during the time of a crisis was often prohibitive to planning and evaluation. When an action item was identified by the strategic operations team and assigned to an individual, short discussion ensued and then the individual worked with their team to complete it as soon as possible so the next item on the ever growing list could be addressed. Each strategic operations team meeting after the item

was assigned, the item and name would move up the list and be addressed at the beginning of each meeting until it was completed, creating an incentive for each team member not to have their name on the top of the list next to too many action items (Interviewee #10, personal communication, 9-8-11). In the rapid fire decision making environment of a crisis, it was necessary to take action as rapidly as possible to best resolve the issue so that other important items could be taken care of as needed. As one participant described it:

You know I think in terms of action plans, they were probably less action plans than action items. And what I mean by that is I think under ideal circumstances, we would have said, "Okay this needs to happen, then this needs to happen and then we need to do this." Those things couldn't happen sequentially; they just had to happen and so a lot of things were happening on top of each other which meant a lot of the stuff was fluid. You know it goes back to you talking to Texas City one day and finding out this was going to work, but this wouldn't work. You know you had to--there were less action plans than action items I think and I think really that's what we were using SOT for. And again under ideal situations, we would have had probably more formal measures. But I don't think we could have done that with the size staff that we had. I just don't think it's possible. We were pretty well pushing the limits, especially for that first three weeks. I think if that first three weeks had stretched out into six weeks, we would have needed serious help. I don't think that the group of people that we had doing all of that could have sustained for much longer than that (Interviewee #4, personal communication, 7-27-11).

Those decisions were not always the right ones, but the crisis environment often required the team to move on to the next challenge instead of stopping to reflect. As a result, the team relied greatly on the good decision making ability of the staff. "We had a plan, we executed it to the best that we could, but sitting down asking are we being strategic, are we doing whatever – I remember our conversation with Grant where I just said "Just tell everybody make their decisions and if we mess up we'll fix it, but just make good decisions." (Interviewee #10, personal communication, 9-8-11). One

strategy the team utilized was to document everything so at a later time, once the crisis subsided, an after action report and more reflection could occur.

Things were too hectic in those initial weeks, but longer term we consciously decided that there had to be an after action review. So it's like those documents that we created both in that tracking system that you just made reference to, I know Karen and Taryn from the communications perspective kept up all the web pages with the updates and I mean we literally, a lot was just kept in a binder of all that so we can kind of follow, okay what did we say we were going to do et cetera and monitoring those kinds of things.

I think we got a lot of information on actions that we needed to take when we would have those forums of just the Galveston family coming together and then having folks come in to do those other deals. But we committed to an after action review. And I think that was critical to kind of talk about not only what are we doing on a day to day basis, but what the heck did we learn after this traumatic experience that we've been through and we pulled together as you will remember the folks from Galveston as well as A&M and had a facilitator come in and then we went back and then we tweaked our plan based on things that we learned from the experience (Interviewee #10, personal communication, 9-8-11).

The use of performance measures in reviewing these day to day action plans was also an approach that although, recommended by best practice, often falls to the wayside during crisis response (The Quality Texas Foundation, 2009). The process was just different. "I think it was more of a checklist; if you could go back through that original document, and say did each one of these pieces get resolved. Did parking get resolved? Did health services get resolved? Did counseling get resolved?" (Interviewee #1, personal communication, 7-18-11). Others described the use of performance measures differently:

I can't say that was formally done. I mean I don't recall filling out a form every day. All of us had a couple--again, we had the principles. We made sure the principles were always there behind us to check off on. We came back to those all the time I think and remind ourselves, this is how I make decisions, I mean that's-- the real key was, every decision had to be traced back to those principles and that's not common. I think in many operations like that when you have a

small set of principles that are used to drive every decision you make and that was very effective, so everyone in leadership role knew those principles and employed them probably daily, hourly sometimes, to be able to make appropriate decisions and to me that was the strength what we did here.

The measure of performance there at best was done after the fact in terms of measuring things like number of students who didn't make it up here. We tracked their performance academically very carefully. We were concerned about again the emotional impact having a negative effect on that. It was true. It did happen, I believe. And so we tracked their academic standing very carefully.

We then again looked at the financials to try to track those very carefully, make sure we knew where the money was going. In fact, we had a state audit done right after it happened. I think it was going on while we were still recovering in fact, which was kind of inconvenient but we did. And so, we had sort of a professional objective viewers from outside coming in and asking hard questions about why or how or how much and I'm not saying I appreciated that a lot because it was very disruptive of our processes here, but it probably helped us pay attention to things like that and we did do better tracking as time went on because of that. Not so much in College Station whereas in Galveston, we were making decisions there very much real time and not doing appropriate documentation of some plans which was really a great necessary for recovery of resources after the fact especially with FEMA.

And so once the audit was done to us as I was saying, it was pointed out very quickly to us, we had to do a better job with that, so we had some real short change of philosophy about this. We weren't just calling the shots at the hip every day and calling in contractors and telling them to get this job done without going through more of a formal process to award contracts, to track the actual processes going on. We obviously waived a lot of the normal procurement processes that we had to, but we went too far probably at the beginning of this in the effort to try to get things back on the right track quickly and we paid a price for that in terms of having to go back and recreate a lot of stuff after the fact. We probably lost out on some reimbursements because of that, too, ultimately (Interviewee #11, personal communication, 9-9-11).

The approach that the TAMUG Crisis Management Team had pursued in the original Business Continuity Plan was extremely strategic in nature outlining a broad framework in the various functional areas with the intent to let counterparts from the two campuses continue to work out the details. Very quickly after the crisis, the team

realized that there were a number of other decisions that had to be made that were not covered through the white papers and so a set of guiding principles were developed to provide for consistency across decision making as well as guidance for front line managers.

With the white papers and guiding principles as well as the large committee of College Station and Galveston leadership further directing policy, a truly strategic plan for addressing the crisis was developed. Very quickly the interim strategic operations team was formed to begin developing the action items necessary to accomplish the strategic goals set forth by the larger group. Although the available time often prevented the establishment of formalized action plans, the group was able to identify key issues, address them, and document many of the actions for consideration later on. Auditors and after action reviews later reviewed this documentation for performance and future improvement.

Customer/ Student Focus

*Understanding your Student and Stakeholders - The **Customer/ Student Focus** category examines how the organization engages its students AND stakeholders for long-term marketplace success. This engagement strategy includes how the organization listens to the voice of its customers, builds customer relationships, and uses customer information to improve and identify opportunities for innovation (The Quality Texas Foundation, 2009).* The following analysis and findings of customer/ student focus are derived from questions that are established by the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) and outlined in Appendix I.

TAMUG's approach to assessing the students' needs and communicating with them through the web initially worked very well. The students had been told as early as their first college orientation that in the case of emergency or crisis, the webpage would

be the official means of communication for the university, and it had been reinforced many times, including during the call for evacuation for Hurricane Ike. Even with power disabled through much of the Houston-Galveston area as an on-going result of the storm, students used their smart phones and other resources to communicate with each other and with the campus, often using car chargers to recharge them (Interviewee #4, personal communication, 7-27-11). Unfortunately the plan did not provide the detail as to how to augment the communication with the students once the decision to relocate was made. The TAMUG Crisis Management Team knew there would be an incredible amount of confusion and uncertainty once the information concerning the relocation was released through the webpage and text service. As a result, a telephone hotline was made available for all student questions and concerns and manned by Galveston faculty, staff, and student leaders. Multiple lines running late into the evening allowed TAMUG faculty, staff and students to respond to the myriad of questions, recording each with an appropriate response into a frequently asked question list that was placed on the webpage and updated once a day (Interviewee #4, personal communication, 7-27-11).

In addition, a web-based form was developed that allowed students to provide information about their intentions and needs to TAMUG. In seeking guidance on orienting Galveston students to the College Station campus and services, the TAMUG Crisis Emergency Team deferred the process to the College Station staff who had conducted a similar process on a much smaller scale with the Katrina refugees a year earlier. Once the students arrived on campus, a student wide orientation was held in Kyle field to orient the students to the new campus and processes as well as provide

another opportunity for feedback. One participant speaks about the process of assessing the student needs:

So I think having really strong professionals is a huge component to that but we did do a lot of things like that website framework was one, taking down the normal home page and putting up the emergency structure or whatever that was. Then another part of it was we set up the 24 hour hotline and we rolled the 800 numbers from this campus in Galveston to College Station so there were the free phone calls coming in and out on that line, and we manned it. That helps and it was amazing what came in on that line. I mean the people that were answering those phones were God sends, because they had to answer all kinds of crazy stuff, even stuff not related to the campus trying to get people solutions when they didn't know where else to call.

The other thing they did was they kept the log of all of those phone calls that were coming in and kept generating frequently asked questions and posting them on the web as fast as we could. I think that was tremendously helpful. And then once we were in College Station, when we were opening up we had the orientation in Kyle field, but that was really significant for me to see the students there after that first week of crisis that they came in. It was kind of that overwhelming in nature and then they are suddenly sitting in Kyle field and all of those kind of things (Interviewee #1, personal communication, 7-18-11).

Once the semester was under way, efforts were continued to seek student feedback and information. Emails were sent out with new information, and the webpage was continually updated with newer information. Student forums were held on a number of occasions, videotaped and put on the internet for students who couldn't attend.

During the fall semester, we held at least two, maybe three town hall meetings in College Station for students to come to. It gave us an opportunity - they weren't well attended - but it gave us the opportunity to share information with the students, and it also gave students the opportunity to ask questions of us in particular areas about how things were going to be handled. And as you can imagine, the first town hall meeting was probably the best attended which I don't remember might have been 100 students. And we got a lot of questions in some sense there was probably a lot, understandable, but there was a lot more anger at that meeting, because of some of the chaos they were running into when they got to College Station. As we held more town halls, fewer students would show up, and we kept things going as far as Aggnews and keeping websites updated and trying to do the best we could and using text messages as best we could to keep

students in the loop. I think of the bigger challenges we had being in College Station was you now had students spread out amongst however many acres that campus is whereas in Galveston where we're used to much smaller confined space (Interviewee #2, personal communication, 7-22-11).

Two locations on the TAMU-College Station campus, the General Services Complex and the Grove, were identified as locations where students with any issues could come to get assistance. Student affairs and counseling staff were on hand in the Grove to address non-academically focused issues and academic enhancement and admissions and records worked to resolve academic issues. As one team member described it:

We clearly rely upon student affairs to do a lot of work in terms of listening to students here and filtering that. We made all decisions about housing in particular. Basically, you've did a lot of that yourself like at the Plaza Hotel, for example and things like that, so, we were trying to utilize directional input into us and then go back out at a higher level to provide services and say, you've got to fix this problem, so there was a feedback loop established right away about that.

It was more complicated for the academics because they were more dispersed and it's harder anyway, but with there again and the combination of Bill Seitz, who really ran that program fairly effectively, and Donna Lang, who handled some of the underpinnings of it, was very good and so, we sort of knew from the faculty and staff that were happy academically, what was working and not working day by day and we really shuffled the decks several times about issues about classrooms and laboratories and off campus facilities we were making use of for the academic enterprise here.

Ultimately, the student was coming first. We want to make sure, again our principles were there. We want to keep them on track academically. We want them to be successful academically, so that was paramount (Interviewee #11, personal communication, 9-9-11).

The TAMUG Crisis Management Team realized very quickly that another threat was looming. TAMUG had already had a history on losing students to College Station after their first year. Whether students who were intentional in taking their first year in the smaller classes of TAMUG or students who had become disillusioned with a marine

or maritime-based major, there were years where well over a hundred students changed their curriculum to a College Station major and transitioned campuses. Now with the entire freshmen class located in College Station, the concern was whether that number would surge even higher. The threat of saving the semester for these students only to lose them to College Station permanently was very real. Although the upperclassmen had bought into the culture of TAMUG, the storm had struck very early in the semester, quite possibly before the freshmen had been able to fully experience the TAMUG academic culture. As David Dill (1982) states in his article, “The Management of Academic Culture: Notes on the Management of Meaning and Social Integration:”

The intensity of an academic culture is determined not only by the richness and relevance of its symbolism for the maintenance of the professional craft, but by the bonds of social organization...For this mechanism to operate the institution needs to take specific steps to socialize the individual to the belief system of the organization, and promote joint activities between colleagues from throughout the enterprise. The decline of academic culture is thus partially traceable to the rapid growth of academic communities, the isolation of specialties, and the inattention given to the process of social organization necessary to nurture academic culture. The management of academic culture therefore involves both the management of meaning and the management of social integration (p 317).

Although the Galveston freshmen had some limited class time with their faculty in Galveston prior to the storm and many had some exposure to the TAMUG culture through New Student Conferences and SALT camp pre-orientation programs, the plan leading up to the storm was to disperse the students among College Station courses and throughout the community. Very quickly the TAMUG Crisis Management Team realized the folly in this plan not only from the standpoint of retaining the academic identity of TAMUG but also from an emotional support standpoint. The result was the development of a new plan to emphasize the Galveston culture and connections to these

students and further enhance the relationship between TAMUG and its student body, even as they existed with the culture of the College Station campus. In his article, *Organizational Culture in Higher Education: Defining the Essentials*, William G. Tierney (1988) identified six essential areas to establishing and maintaining academic culture – environment, mission, socialization, information, strategy, and leadership. TAMUG implemented initiatives in each of these areas with the intention of strengthening the ties between the students and institution. With regards to environment, the determination to keep every Galveston class together with the same faculty and classmates gave each course a truly Galveston flavor regardless of being located in a church, dining hall or other location. The housing assignments had also been intentional in trying to keep roommates and suitemates together as well as trying to keep the corps together as much as possible. In apartment complexes where a number of students were assigned, upper class student leaders were assigned as well with the task of interacting with the younger students to connect and role model for them. Community leaders who no longer had residence halls to oversee were kept on payroll and charged with contacting their former residents to check up on them and give updates and new information. The mission of TAMUG's relocation was communicated on numerous occasions and reinforced by organizing trips to help clean up Galveston. These trips served to reinforce the need for the relocation as well as the commitment to return. Socialization was reinforced by all of the activities above as well as other activities specifically designed to engage with the students as much as possible, building relationships with them and assist the students in building relationships with each other

through different types of programming. Intramural sports were set up exclusively for TAMUG students as well as numerous student activities throughout the Fall semester. Furthermore, the location at the Grove was outfitted with couches and lounge space among the office to give Galveston students a place to socialize.

From my perspective I think one of the things that worked well as I alluded to much earlier was the fact that we were in a trailer over in the Grove and so we were able to announce... Back up just for a second. When the students all got back I want to say the first full day back we held essentially an orientation in Kyle field and so we were able to share a lot of information and we were able to share during that orientation that the Grove is kind of a maybe a home base for people. And so a lot of students I think used that as a resource. Again we had counseling, we had career services, we had activities, we had Rec Sports, Joe Hoff working with the folks in College Station for intramural sports and spaces and I seem to recall they were well attended and good participation. So that was important, but having that temporary building be our home away from home I think gave students a place to congregate. I don't want to make it sound like that was the only place, I think certainly students have connections to different places and I wouldn't be surprised if the writings might have been a home base for folks that might have worked with Vic Penuel or if the tutors might have found some home with Academic Enhancement. But just a place to go and know if I go there I'd know I'm going to see Galveston people... (Interviewee #2, personal communication, 7-22-11).

Information, strategy and leadership came through the thousands of phone calls that were received and responded to not only from students, but from their parents as well (Interviewee #4, personal communication, 7-27-11). This information was augmented by student forums where President Loftin addressed the students, outlined the progress and strategy moving forward. These forums were recorded and put on the internet for students to view if they could not attend the forums. Besides recording the student forums, TAMUG developed podcasts so the information could be downloaded to their mobile devices. The message was clear and communicated in a number of technological mediums by President Loftin himself to emphasize that the situation was

well under control, and there was a solid plan to return TAMUG and its students back to Galveston.

Technology actually played a major role in supporting the students' continued use of the educational programs and offerings. As planned in the approach, the primary mechanism was the use of technology to communicate with the students. The webpage was the critical first piece, but the initial orientation and mass emailing and texts further augmented the spread of information and support of the students. As described by one team member:

Yeah. So, basically various communication channels were established to ensure trust among the students. And there was website communication. It was constant and consistent. You will see that. When changes were required they were communicated as quickly as possible. A phone bank was set up at the command post and College Station to address questions from both parents and students. The phone bank had available both TAMUG and TAMU phone numbers for areas of expertise on specific questions, because TAMU has students services group, TAMU has business services group, but TAMUG also has representative there. So, Bob Piwonka might be called on to the specifics, but if the student was really up in arms, they would talk to someone from Student Business Services that knew Galveston. Town hall meetings were held regularly to communicate latest on current academic issues and concerns as well as prognosis and plan for returning to Galveston. So, all those communications were done (Interviewee #6, personal communication, 8-2-11).

Student leaders and student organizations were also used a great deal to support the students. The TAMUG Student Government Association and Community Leaders became valuable conduits of information to the rest of the student body, and the team used various organizational structures such as the Corps of Cadet structure and tutoring labs to distribute information and provide support to those students struggling in the relocation (Interviewee #9, personal communication, 8-18-11). The other TAMUG student organizations were also called upon to continue operating and thereby provide

additional socialization and support. TAMUG student activities worked with their TAMU- College Station counterparts and student officers to get the TAMUG student organizations access to the StuACT website, an interactive website hosted by TAMU- College Station student activities which provided valuable information concerning critical processes and forms directly to the student organization officers who were trying to keep their clubs active during the College Station relocation. This new technology proved to be a valuable asset to the officers struggling to keep their organizations active under the difficult circumstances.

Unfortunately as much as technology greatly enhanced student access to the programs and vital information, the students reportedly suffered from the overuse of technology as well. Distance education strategies were utilized by many faculty to facilitate the teaching process, allowing many faculty members to commute less as well as provide opportunities for those students who did not relocate full time to access class from other locations such as north Houston or the Prairie View campus. Many students reported that some faculty were not qualified to teach distance type courses or that certain subject matter such as calculus was not appropriate for distance teaching. This result was particularly evident in some of the freshmen level courses who were already adjusting to college level instruction. This adjustment was already extremely difficult for many freshmen, but when compounded by the interruption of the crisis and followed by the adjustment to a new teaching style, it proved to be a recipe for disaster for many students. This was a key learning point in the crisis that really resonated with one TAMUG Crisis Management Team member:

And the same thing goes for evaluation of research. I mean, that was no hiccup. If you're talking about the academic programs, there was no metric applied to my knowledge with respect to the quality of the programs as they were delivered. There's no doubt in my mind that the move to College Station was only marginally better educationally than a shut down for the semester. Institutionally? Yeah, we kept our enrollment. We kept everything going but with regard to the education of the individual, they'd been, in my opinion, almost as well served by just taking a semester off and coming back fresh to a functioning campus. So a lot of that is driven by money...I don't know. I just, I do believe that the quality of what was done academically was very subpar. And you know, it was all about keeping the family alive and not about the family learning very much (Interviewee #8, personal communication, 8-10-11).

Although much of the academic difficulty information did not become apparent until after the semester was concluded, TAMUG did develop a number of methods to assess student satisfaction, engagement and dissatisfaction so that the information could be used for improvement outside of the classroom. Initially there was a high level of engagement as every student was contacted so that housing, parking, university identification cards, and the like could be distributed. Those moments often gave the staff members time to question students about their well-being as well as the student time to share concerns. The forums and web also provided input. "The process of the FAQs, which was really more of a back and forth than it sounds like, was certainly part of it, then a lot of informal communications occurred like you talked about, talking about until 10:00 o'clock at night with students. And we continue to, because -- even though we moved out to our purest areas physically, we still continued to function as TAMUG in College Station as a campus. And so we continued to meet and share these things we're all learning with each other and that was critical" (Interviewee #5, personal communication, 7-29-11). TAMUG enjoyed a high level of personal interaction with its student body before the storm and that tradition continued throughout the crisis,

providing valuable information as to the performance of the university throughout the crisis. One TAMUG Crisis Management Team member described the ongoing assessment like this:

I would say it was mostly anecdotal. We did some formal stuff. We made a decision that was, I'm not sure it was the right one, but we worried about the normal course evaluation process that was discontinued after that one semester, so we did not do it, but there were other informal ways and a few formal ones done to capture student input for example and especially after we got done. There was always stuff done to capture information about how things worked with people and so that was all used as part of the After Action Report again to do refinements of the long range plan we had utilized during this effort to make sure it was better, given the fact. But again, I think all of us knew there was a lot of communication.

I got so many E-mails. You did. We were--I always replying E-mails basically 24 hours a day; you were, too. We had all these phone calls, so there was no lack of input there. I can't say it was structured necessarily, that's the downside. It wasn't structured, but the volume was huge and a lot of those were redundant. I mean you heard the same story over and over again, but that gives you a measure, too. If you hear the same story, you know the magnitude of the problem and I think it was probably not efficient in an objective way because it was all sort of one of one-on-one kind of conversation and such, but in my case, I would create E-mail responses to common kinds of E-mails. I could almost just copy and paste replies, but I made sure every E-mail I got was answered. I think every phone call was answered.

We had our principles again. We will respond to people and not let them hang out there, and that was very effective. There was a lot of utilization again of College Station staff to help on some other areas like financials. Bob's office was very involved here. Bob Piwonka was involved here in terms of handling that part of it. Student IDs, all of the things you've got to have here, meal cards, things like that, we had utilized College Station staff to augment the Galveston staff as well. And again, the way we got input or evaluations done was usually not formal but informal, but I think in a case like this, it's very difficult to think about how you would do formal evaluations that are meaningful because every crisis is different, something like that. There're are probably some common elements you could always look at, but I think there's too many things that are just unique in each crisis that makes it hard for you upfront to say, here's my standard evaluation mechanism. But again at the After Action Report level, we did sort of form, we did have questionnaires, we did go back and ask questions

about specifically what went right and wrong about this and try to document those (Interviewee #11, personal communication, 9-9-11).

The TAMUG Crisis Management Team deployed a number of strategies to enhance the student focus from the original plan. The biggest strategy was to change the plan to reconstitute the TAMUG classes on the College Station campus for a variety of reasons. This strategy facilitated a stronger connection between the students and university which then created more opportunities for assessment and feedback. Many other strategies for feedback and interaction were developed as well included the extensive use of technology and planned activities. Still, most feedback was anecdotal in nature, but through high levels of student interaction provided valuable insight as to the engagement and satisfaction of the student body.

Measurements, Analysis, and Knowledge Management

*Managing by Facts to Drive Performance Improvement - The **Measurement, Analysis, and Knowledge Management** category examines how the organization selects, gathers, analyzes, manages, and improves its data, information, and knowledge assets and how it manages its information technology. The category also examines how the organization uses review findings to improve its performance. (The Quality Texas Foundation, 2009).* The following analysis and findings of measurements, analysis, and knowledge management are derived from questions that are established by the Quality Texas Foundation- Engagement Level Criteria and outlined in Appendix I.

Without a formal plan identifying what the needs for data would be, the TAMUG Crisis Management team operated during the initial phases of the relocation in a reactionary mode. The initial plan had laid out the basic framework for the initial steps of the relocation, but very quickly the team was operating in new territory, attempting to merge the Galveston semester into College Station's semester in a very short time frame. As initiatives were attempted, calls for data were made to determine the success or

failure of each initiative, and regular routine meetings were called to analyze and discuss next steps based on the data.

Again, daily meetings occurred at both intermediate and senior levels to review what was going right and wrong. We were tuning things day by day. The first month at least, maybe more than a half, every day was a new day and we were learning stuff and then adjusting our operations accordingly. I think by the time we got to mid-October, things became pretty routine by then, but that mid-September through mid-October timeframe, that first month was very intense and it was very, very much again everyday people getting together, maybe multiple times a day and we were facilitated particularly in the GSC area there where you were housed, we had people get together, you could easily go to a conference room. I was having meetings over there at least one a day for a while.

When I left, Rodney continued that whole process, multiple times a day sometimes, so there was a lot of ways for us to again monitor the circumstances and adjust day by day. For a longer term, clearly, just the whole idea of doing After Action Reports is formal and having an external person. Bryan came and did that job for us. He was very helpful. He asked the right questions. He wasn't biased by having imparted the process as much and so we came out of that with a pretty thick binder full of information that we gathered through that process that's a permanent way to help you in forming your future planning (Interviewee #11, personal communication, 9-9-11).

The data came in a wide variety of formats. Some were standard reports that would have occurred in any semester of Galveston prior to the storm. Reports concerning enrollment, attendance, financial aid, and other university information were generated to guide discussions based on what would have been expected without the storm. Others were more unique to the crisis such as students who were facing severe financial circumstances as a result of the storm and students who had lost uniforms and textbooks.

As one team member described the need for the variety of reports:

Well, we are data people, Loftin is a data person. We made a lot of reports. You don't want to know- how many people had called us, how many people didn't call, how many people have emailed, and how many people didn't email. There is student channel. How many students? Can we estimate? Okay now send them emails and see how many emailed back. Now we do a lot of that. Even if we did

one method, sometimes you tried two. So, we try a lot of different ways and we try a lot of different data. It was kind of hard too because we didn't have that kind of data before. How many people are here that were on financial aid before because how many can they plan on upstairs (in the President's office). It's data that we didn't normally have before that we have now to make the decisions with (Interviewee #7, personal communication, 8-9-11).

The data was fairly accessible due to the alignment of the systems. With Galveston utilizing nearly all the same systems as College Station, not only was it is easy to pull reports from the various databases, but the Galveston staff were very familiar with many of the information technology people in College Station who assisted in pulling larger, more complicated reports. This also meant nearly all of the data was preserved in College Station, well away from the impact of the storm. There were some challenges however. There were some nuances between some systems that caused major problems at times when programmers were not aware of the differences. At one of the most critical junctures of the crisis response when the new class schedule was being built, it was discovered that one of the reports was wrong resulting in two long days of lost work at a time when they were under a deadline to have the class schedule complete (Interviewee #1, personal communication, 7-18-11). There were also other minor differences in databases like different meal plans available on each campus that further complicated some of the transition on the cost neutral principle (Interviewee #2, personal communication, 7-22-11). Lastly some of the smaller databases likely the housing databases were completely separate and so required a lot more manual manipulation to be able to access the necessary data. Unfortunately some of the most critical data, that of the teaching and classroom performance, would not be available until the end of the semester when the campus was transitioning back to Galveston.

There was also a conscious effort to distribute valuable data and information to the workforce, students and other stakeholders. In fact, numerous methods were used. During the height of the crisis, direct meetings were called where information could be directly disseminated to the involved parties who could then distribute to their teams for action. These meetings were heavy on time and manpower but deemed critical during the rapid pace occurring early in the crisis (Interviewee #11, personal communication, 9-9-11). As the crisis somewhat subsided, more traditional forms of communication were used to distribute the information. The TAMUG Crisis Management Team members emphasized the benefit of utilizing the same systems in many, but not all, of the departments.

Data flowed through the normal mechanisms and that's only possible because we've already used College Station systems. In another situation, if this was – okay, Tulane's people at A&M for Katrina, it wouldn't have worked because they didn't have access to the data systems, they didn't know the data systems, etcetera. In this case, because of the branch campus relationship and we already use those data systems, they just keep old staff and students, the portal and at that point we were still on SIMS but we had myRecord, so they still use myRecord to find out when our schedule was and so on. So they still use -- because we were on a shared common system, they still used their normal data systems, I think. We didn't do a lot whiteboard checkmark kind of stuff. We didn't setup a lot of new automated systems. I think we pretty much used all our existing systems because of the commonality (Interviewee #5, personal communication, 7-29-11).

At the same time, much of the data involved in the crisis was not purely numerical in nature. In making decisions rapidly, it became difficult to operate purely on anecdotal information, but the TAMUG Crisis Management Team members worked through it.

We're all data driven and the difference here was it wasn't all numeric data. A lot of anecdotal data was given to me every day, so what made it a little more complicated at this time was, and I'm data driven myself, that's how I make

decisions but we had to rely at this time on not just numbers because we don't always have them.

We relied a lot of just this informal communication that was coming in to various parties and we try to aggregate that the right way, so we could examine it from a standpoint not of this person speaking about this, but that we had these 15 or these 150 different comments that had very similar things here and that was a very big driver making decisions day by day. So again, data yes, but data in a broad sense of the word, not data that's purely numerical.

Once we got into the semester, we began to get grade data things like that, so we'd be monitoring more differently but that wasn't true the first month. We were doing it again day by day based on any anecdotal information flowing through all of us up to the top levels (Interviewee #11, personal communication, 9-9-11).

Yet another piece of the knowledge management aspect of the crisis response was the collection and transfer of workforce knowledge in how the crisis was responded to. The TAMUG Crisis Management Team took a very intentional approach to preserving the organizational knowledge that resulted as a result of the crisis response. For one, all students were surveyed as to their experience with 366 students returning valuable data about what worked and didn't work for them during the semester. In addition, a student forum was hosted by the TAMUG Student Government Association upon returning to Galveston to facilitate a dialogue between the students and administration that provided valuable data. All faculty were surveyed as well, providing valuable data as to their perceptions of the classroom experience and overall semester. A broad After Action Report was conducted by an outside consulting firm that collected valuable data from many of the TAMUG Crisis Management Team, Strategic Operations Team, and TAMU- College Station participants and is included as Appendix V. The information was collected and reviewed by the TAMUG campus executive

team. It has also been used in various presentations across the nation by administrators and faculty, but at this point has not been developed into a format that is readily transferable to the workforce, something that may become an issue as attrition occurs.

As one member stated,

We had the same team, we had the same process. What I worry about is that students clearly graduate. There are no students already left right now in Galveston who lived through it and so that's totally new and we always have staff and faculty turnover, so what I don't know we're doing as well is how well we're trying to refresh this. I mean people like yourself and others. Donna who has been there through it all, in fact going back many times before and that's extraordinarily useful corporate knowledge, but Bill Hearn is gone. And that's a problem because he was a very wise and a very, very helpful individual at this whole process there and helped tremendously by taking care of some of the issues we had. Nonetheless, there should be a team effort to do that (Interviewee #11, personal communication, 9-9-11).

The management of knowledge immediately after the storm was difficult but effective. The TAMUG Crisis Management Team was familiar with the multiple systems and had access to additional support through College Station for the more complex or time sensitive projects. Data was used extensively to drive the decisions, but unfortunately the data was not always in an easily analyzed format. Anecdotal data and trends were interpreted to the best of the team's ability. In addition, a huge amount of data was collected at the conclusion of the crisis – assessment of faculty, students, critical staff- for later review and incorporation into the Crisis Management plan.

Workforce Focus

*Developing and Realizing the Full Potential of your Workforce - The **Workforce Focus** category examines the ability to assess workforce capability and capacity needs and build a workforce environment conducive to high performance. The category also examines how the organization engages, manages, and develops your workforce to utilize its full potential in alignment with the organization's overall mission, strategy, and action plans. (The Quality Texas Foundation,*

2009). The following analysis and findings of workforce focus are derived from questions that are established by the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) and outlined in Appendix I.

Without a lot of detail in the plan as to how the university would utilize its workforce, a number of important decisions had to be made at great speed. There were many different aspects that the TAMUG Crisis Management Team had to address immediately including the assessment and repair of the campus, the administrative aspects of the relocation, and the teaching of the students. As such the handling of the university's workforce of faculty and staff became a critical component in the response to the crisis, even though it was for the most part missing from the crisis management plan. Different methods were implemented to address these incredibly different functions while managing the work processes in a way that would be most effective. The recurring theme communicated to the employees by the leadership of TAMUG throughout this effort was that the university was in this together and would work together to come out of this crisis as a team.

You know, I think the biggest statement earlier on was, and it goes back to Loftin being willing to take risks, is we paid everybody. We gave everybody a few days away, because we were in all in different states of different places when it actually hit. I mean some of us were already working even before the storm ever hit and we just kept working into the storm response mode. And then others called back and the speed of how fast somebody had to report in after the storm was asked. It was questionable at times on different things and something we have to probably tighten up, but we said everybody that comes back to work is going to work. And we found something for you to do to stay being paid and in that kind of a crisis where other wage earners are being cut off and don't have any income, our staff always had their income. And I think that was huge for them to stay motivated and loyal to the larger picture of the organization. I think people that weren't as hurt personally, some of the people on the mainland, were directly told "Hey, we have to have you step up; I know this is above and beyond, but so and so down here has got to have some flexibility, because this is where they're at. I need you to do their job."

So it was about refitting and being constantly dynamic, and there's a couple of things if it matters in this particular process that make huge differences to us in this campus and I think part of that is Aggie culture. I think that kind of 'can do, we're going to stick together no matter what' mentality, permeates our staff too and so that was done and our size mattered.

If we were much bigger than we were, this wouldn't have been as doable because it's still personal here. I still know you as a person or this person and I knew exactly, what they were going through and so the longer term about stabilizing the institutional health was as important to me as what happened on that Tuesday. We didn't RIF (reduction in force) anybody. No other organization in Galveston can say that. GISD, Galveston College, UTMB did really harsh things to their people, that Texas A&M at Galveston never did, and I value that in a huge way. They let people go to rehire them back, and I know they were in a crisis too, but we didn't do it. And I think that's the biggest part of our work force development. (Interviewee #1, personal communication, 7-18-11).

There were some difficult decisions to be made as the work decision involved not just the workers, but their families as well. After all, the TAMUG Crisis Management Team knew immediately that this event would not be a short-term work assignment of a week or two but rather a semester long relocation away from their households, many of which had been devastated by the hurricane.

Well, a big deal in this crisis was really who stayed there and who came here and who could stay here and could come here and so we tried to sift through all the people we had, which is in the lot number. We have under 400 faculty staff total, so it wasn't a lot of people. But we had to really figure what skills and such were required.

It was tough. I mean in some cases you had one spouse here and one spouse there. I mean you were one exactly in particular and that was very, very tough on that particular family. They had to move part of the family here and a part of the family there and so those were just very, very hard problems for you to adapt to. I think it worked out okay ultimately, but it wasn't easy.

A big deal for us was the issue of faculty and staff with families that relocated here. What about the kids so we went to school districts here, Bryan and College Station ISD, and we talked about that. We got kids in school again. I think it wasn't ideal, but it worked and so those are problems you get into.

So, you have work forces not just a matter of matching skills, it's matching also the reality of a person's life and their families just as well. You can't ask too much particularly for many months at the time. I would pick at a person without recognizing what's going on there. So, I think it was two levels. We looked at one level which was really just work force skills. What skills would we have here, which one is down there? That's pretty straight forward. But then you had to do a second cut and say, "Okay, given that, who can really do this? Who can really be here?" So, in some cases, we had people who had to stay in Galveston, who really should be here and we had to work out ways to help them get their jobs done in spite of that problem. There weren't a lot of these situations, but there was some of them, a few people particularly in some of the operational areas there that families just could not relocate. And so, we ended up having them stay in Galveston, but they had to actually work here in a virtual sense, but that was almost done on a case by case basis.

The skill set, you can almost do at a higher level and say we need this kind of skill here and that one here there. That's straight forward, but you can't ignore the human dimension and recognize you have to be sensitive to the person's ability to do the job because of who they are and who they live with basically (Interviewee #11, personal communication, 9-9-11).

For the staff that would remain in Galveston, many worked for the service component of the campus – custodial, facilities services, food services- and could get back to work at their old jobs once the campus had some minimal work done to ensure safety. The ability to stay local for this group was especially important as it was many of these employees whose homes suffered the most extensive damage. Many had to relocate with their families from their devastated homes to the residence halls on campus or apartments across the street that the university had leased. Abbreviated work schedules were developed to allow workers to do their jobs on campus but still have time to return to work on their homes in daylight before returning to the campus once again before the city curfew to sleep (Interviewee #3, personal communication, 7-20-11). For those admission and student relations professionals, they were sent out on the road to visit

more high schools across the state as well as coordinate admissions receptions in home cities rather than inviting new prospective students to the hurricane ravaged city (Interviewee #7, personal communication, 8-9-11).

For those deemed essential for the relocation of the students, houses were leased for those who were needed fulltime, and flexible work schedules were developed for those who could commute for certain days of the week. The student activities, counseling and career services rotated their staff to have staff present in College Station during the work days of the week, and a three bedroom house was leased, furnished with air mattresses and furniture from the Galveston campus, and deemed “Hotel Student Life” where whomever from student affairs was in town for the night could spend the night (Interviewee #2, personal communication, 7-22-11). Generally the hours in College Station were long, particularly early in the semester, as professionals struggled to answer the many phone calls and emails late into the evening each night (Interviewee #5, personal communication, 7-29-11).

The teaching aspect was also a challenge. Originally the plan had called for distributing the relocating students throughout the available College Station courses, and then reconstitute those courses that were unique to TAMUG. After considering the impact on the students of being forced into a course in progress with a different instructor and syllabus coupled with the high percentage of students willing to relocate, the plan was changed to bring the entire TAMUG course inventory to College Station. The TAMUG Crisis Management Team worked to develop a process that worked for the instructors, many of whom did not live on the island and so whose homes were

unaffected by the storm, and the students, some of whom also had not relocated fully due to family and households off of the island. Classes were changed to three hour blocks once a week to ease the travel requirements of faculty and student commuters. In addition, faculty were given the option to utilize distance education techniques to further reduce the commuting requirements. The faculty were kept together in their academic departments, and many of the faculty were given lab and office space with a respective academic department in College Station. At first, there was some resistance by some TAMU- College Station departments, but most eventually gave way to collegial respect and even friendship.

In the research area in many ways and probably in most ways, the storm was a super positive event from the stand point of our relationship with the departments in College Station. You know, they suddenly saw a bunch of people from down here that were serious about their science, and I think that kind of surprised people. They got to know each other. You know, all that takes a lot of time, and that's why they've had to ask for extra time for that. But it built relationships that are really solid. All of my relationships with the research office at College Station began with the storm. And now I'm good friends with them all. You know, I can walk back in there and talk to anybody. People who you couldn't talk to are now friends and that's a total turnaround. And 100% due to the storm. That was all due to the storm (Interviewee #8, personal communication, 8-10-11).

As a result of the required flexibility of many of the schedules, one of the methods many of the supervisors pursued was the cross training of their employees. There really was no time during the initial phase of the crisis for formalized training so employees often learned on the job from each other and their TAMU- College Station counterparts. In fact just operating within the processes of TAMU- College Station often offered a different perspective to many of the Galveston processes resulting in many processes being adapted for use in Galveston and vice versa.

There were a lot of things that they (Galveston employees) learned how to do. And they can do them now and they still do. That's very true. But lot of other things that they look forward to, things that they consider to be professional development, that they didn't get to do. But they did learn a lot. They learned a lot. They learned a lot from their friends in College Station and from each other. And they learned both work processes and efficiencies. So, they increased efficiencies in a lot of our processes. And they also learned business and personal skills that assisted them when we got back here (Interviewee #7, personal communication, 8-9-11).

In addition, several consultants were brought in to provide more formalized training in more specialized areas. The FEMA reimbursement process was an incredibly difficult but important process, and two different consultants were brought in to assist and better train staff as to the reimbursement processes (Interviewee #6, personal communication, 8-2-11). The same was true for the distance education process that affected so many of the students.

We took resources, and we provided for faculty development around distance stuff, because there were more challenges and more need for it than we had before. So that's probably the biggest professional development thing that I did beyond my normal professional development stuff. Even in my own staff, I don't think I did anything outside my norm. We did take advantage of going to stuff up in College Station - training and stuff, the forums and stuff they hold because we were physically there, for the people there.

But probably the faculty thing is the biggest thing I was involved in where we did additional professional development training. I didn't help set something up. I don't know -- FEMA forms, there were some additional training about how to do FEMA training. Certainly, Susan had lots of professional development opportunities, and we brought in a consultant to help us. So that consultant did some of the work but more importantly probably trained our people how to continue to do the work. So that's another area where we brought in an external resource, the consultant, the FEMA consultant to help us learn how to do FEMA claims (Interviewee #5, personal communication, 7-29-11).

Even with the realignment, relocation and cross training of the workforce, there was a continued emphasis on their health, safety and security. Once the immediate

decision to relocate was determined, specialized teams were sent to the Galveston campus to inspect for dangers from electrical or fire hazards before allowing employees back onto the campus. Once the campus was secured, employees who did not have safe housing were allowed to move onto the campus and provided with food, donated household items, and security for themselves and their immediate families. Security included a police officer posted at the front gate of campus immediately after the storm and a 24 hour police presence after the immediate crisis had subsided (Interviewee #3, personal communication, 7-20-11). Faculty, staff and students who were relocated were given leased properties throughout the Bryan/College Station community, and when a few were found to be in less than safe areas, alternative accommodations were quickly identified and made available. Counseling through employee assistance programs was available to any staff and faculty as well as personal counseling for the students through the counseling office. Perhaps most importantly, not a single TAMUG employee lost their job as the result of the crisis.

Yeah, of course, TAMUG did a great job of helping everyone. Everybody was safe and had a place to live and food to eat and that was wonderful. I'm just so amazed we still did that. We did take care of our people. We had illnesses, we had hurt... people get hurt with all those things and we dealt with it up there. It was a little more challenging, but we did it. We didn't know the services of TAMU, so we used city services more. But I think that we cared a lot about safety. We didn't let people stay too long in places that we didn't know. We always went together – so, those kinds of things. I think that we really looked out for each other more there because we were together – many of us were literally living together (Interviewee #7, personal communication, 8-9-11).

As part of this healing process, supervisors were especially alert as to the engagement and satisfaction of the workforce through the crisis. Constant reminders were provided to gauge the workforce's well-being and recommend Human Resource

assistance or Employee Assistance Programs as necessary to help employees deal with the crisis. There was a lot of management by walking around where the new working environment resulted in supervisors and employees interacting at a much more frequent level ((Interviewee #5, personal communication, 7-29-11). One TAMUG Crisis Management Team member recalled how they assessed employee engagement with the crisis response process:

Well, initially purely anecdotally. Many people, especially supervisors were cautioned, we had a lot of--again, College Station's HR got involved very quickly from here. They're a big team here. They got involved to help the supervisor understand what questions to ask, how to listen to people and so we are trying to be able to gather data from individuals here. Those who initially couldn't come back again were especially the problem and we -- we had to ultimately set deadlines about when they were coming back and regarding their ability to be on leave. I have rules to follow after all.

So we -- we pushed as far as we could and not all, but well plus 95% of our staff came back ultimately. There were a handful who just couldn't do it for a variety of reasons here. We gave all we could in terms of help and support as transition. Well, we couldn't do it ultimately for everybody.

So again, it was a matter of HR being very effective largely here because we had three people in Galveston and we had a whole team here. They were very engaged in helping us make calls, talk to every person and make sure we knew where they were, their circumstances, encouraging them to take care of problems, but also getting back to work when they could and keeping them on the payrolls as long as we could legally do so (Interviewee #11, personal communication, 9-9-11).

For many the crisis response was very personal. A professional counselor was brought in from outside of the campus and assigned to the Galveston campus for some time to offer assistance to many of the employees who remained in Galveston. The counselor remained available for a period even after the return to TAMUG, and group debriefings were held to encourage those more reluctant to participate (Interviewee #2,

personal communication, 7-22-11). More formalized assessments were sought by the TAMUG Crisis Management Team including broad staff and faculty forums and updates, and afterwards several after action review exercises and surveys were completed to better provide insight as to the satisfaction of the faculty, staff, and students (Interviewee #10, personal communication, 9-8-11).

Through these broader assessment forums, the TAMUG Crisis Management Team really benefited from the diverse ideas, cultures, and thinking of the workforce in a number of ways. For one, the challenge that was presented with the relocation of students was a brand new experience where there were no experts. As a result, every idea and suggestion was considered as the territory was largely unexplored. This created a wonderfully dynamic discussion that attacked a problem from multiple perspectives.

As one team member described:

Absolutely, I mean that, having large groups of people very focused on an outcome was fabulously interesting. I think that does go back to that culture that we have on campus that we are pretty good at working as a team, we are pretty good in crisis and we can come together; and that diversity made us so much better because in that big room or whatever there were a lot of times when you'd start down one path and someone would smack you in the head because you hadn't thought about something. You go "no wait come back on that" and that stemmed from different people were always thinking about all different things and that was very powerful (Interviewee #1, personal communication, 7-18-11).

Another described the inclusiveness that was felt even in the larger groups and how the crisis environment encouraged participation from all participants.

First of all, because I'm not generally shy about expressing my opinion, but I think it was probably pretty freeing to some of the people who are shy about expressing their opinion. You just, there was no reason to hold back in this situation, you had to speak up if you had an idea or felt strongly about something or oppose something.

You really did not have the luxury of staying out of it, you had to be engaged and so I think that probably more than anything encouraged that and I think we probably used all those ideas. Because we were desperate for good ideas, I mean without specifying who, but one member of our team was never really open to new ideas until we were in this situation. And then I saw a complete reversal and they were very open to new ideas in so far as seeking other ideas. And so that was kind of a turn around there (Interviewee #4, personal communication, 7-27-11).

Yet another benefit came from the merging of two different entities. Certainly TAMUG is a satellite campus of Texas A&M University, but the processes of serving a campus of 2000 vs. 50,000 were different in many ways. The ability to learn from the different processes and adapt them to create a newer, more improved process occurred on a regular basis.

We got a lot more input from College Station in the things we were doing and ways we could do stuff. Had we gone up there and we rented out facilities and stuff, we wouldn't have done as good a job as we got from having them engaged and helping us rent it out. We could have gone up and tried to procure it ourselves rather than go through them. So there is a case where we did a better job by engaging and having the partnership with the people in College Station to do it. I think there was cross fertilization and a partnership. You can do all kinds of studies to show group decisions are better than individual decisions, but in this case, I think we saw was that two groups make better decisions than one group. And it was sort of the next step up from group versus individual. You know, you've seen all the studies on that and have done the exercises for the student leaders about how a group makes better decisions. But this was the case where you really brought together multiple groups to do major, real time decisions (Interviewee #5, personal communication, 7-29-11).

The lack of much of a workforce focus in the crisis management plan became a significant issue when the TAMUG Crisis Management Team began deploying the plan. Suddenly the reallocation of work force resources was urgent in determining what skills were needed in College Station versus Galveston, who could relocate, and how to cross train and professional develop those who would be taking on new roles. The same was

true of the faculty who moved from a supportive role in teaching courses that were not offered in College Station to a situation where every faculty member was needed to commute or relocate to continue their courses. The rapid fire decisions and repercussions from those decisions were extensive. Still, every member of the workforce continued to be employed and although their circumstances, whether location or responsibilities, might have been different for a few months, the commitment to the workforce was proved to be unwavering.

Process Management

*Designing Work Systems to Deliver Value to Students and Stakeholders - The **Process Management** category examines how your organization designs its work systems, and how it designs, manages, and improves its key processes for implementing those work systems to deliver student and stakeholder value and achieve organizational success and sustainability. Also examined is an organization's readiness for emergencies.* (The Quality Texas Foundation, 2009). The following analysis and findings of process management are derived from questions that are established by the Quality Texas Foundation-Engagement Level Criteria and outlined in Appendix I.

In managing the processes to successfully deliver value to the students, the TAMUG Crisis Management Team had been very deliberative in relocating to an institution which already shared many of the processes and technical infrastructure to immediately support the TAMUG students. Once the relocation has been announced and the team began to review what processes needed to be in place to effect the move, the team quickly realized that most of the processes would remain the same after the “big three” were taken care of – developing a schedule and classrooms, housing, and meal plans (Interviewee #5, personal communication, 7-29-11). Part of the “big three” also included the housing for faculty and staff and the schedule for determining which

faculty would be commuting versus relocating. An incredible amount of effort was expended in solving the three major issues, but once everyone was housed with the understanding of when and where their classes would be, many of the old processes began to fall into place and still worked toward accomplishing the core competencies of teaching and research. Of course there were a few processes that were unique to the crisis like managing the donation drives and donated funds (Interviewee #2, personal communication, 7-22-11). Others had to be adjusted to fit in the crisis environment such as the allowance to use Q-drops until the day of the final (Interviewee #1, personal communication, 7-18-11). Quite a few of the new processes were developed to facilitate a transitory workforce as many of the faculty were relocated or commuting several days a week to teach. Processes to provide appropriate documentation for reimbursement were quickly developed to ensure that employees met all state and system requirements (Interviewee #6, personal communication, 8-2-11). With a little time, processes were developed that for the most part kept the student experience fairly consistent with the exception of one very important area - the classroom experience.

In working to develop processes that kept to the core competencies of TAMUG and also met the key requirements of students and faculty, several processes concerning the classroom experience were altered, some only slightly modified but others completely changed or eliminated. After determining that the students and university would be better served by keeping the students and faculty together in the courses they had signed up for prior to Hurricane Ike, the TAMUG Registrar's office faced the difficult task of developing a schedule that kept students with their respective faculty but

also was convenient for those students and faculty who were commuting from the Galveston area. The shift to courses that would be held once a week for a three hour period was very conducive to the travel plans of those commuting. Unfortunately the long hours of lecture were not the best format for many undergraduate classes, many of whom struggled to pay attention for the extended time. A second concession to the faculty, the changing of the approval process of distance courses, also proved to be detrimental to the quality of instruction for many of the undergraduate courses, Calculus being just one example.

The learning is a hugely important question to the institution in a long term environment. How do you know students are learning? What are your learning outcomes? Can you point to them and continue this improvement? That is not where you're at in this process; that's why I said I don't know that we were successful in some of the student learning outcomes especially when you come to like – well, we had a huge problem in math. Math was terrible; it was probably one of our weakest areas because they tried to do some things that just didn't work at all. So I don't know that the students are competent in calculus, but I think overall the students had learning gains, I mean as far as the development in that person (Interviewee #1, personal communication, 7-18-11).

In both of these cases, the processes that were changed to facilitate the course schedule and travel arrangements worked against the core competency of quality instruction in the classroom. This was a lesson that was learned too late in the semester to make appropriate changes but was documented as an area to be adjusted in future relocations, specifically to reinstate the approval process for any distance education class (Interviewee #5, personal communication, 7-29-11).

Compounding this issue for the TAMUG Crisis Management Team was the management of the work processes while under a crisis situation. Due to the hectic nature of the first month of the crisis, TAMUG Crisis Management Team members had

to develop a process rapidly and then move on to the next emergency often without serious follow-up. Sometimes by the time the solution was realized to have fallen short of expectations, it was too late to make adjustments as the return to the more standardized processes of TAMUG was occurring at the end of the semester. Some of the student experiences with the distance education courses fell into this category as the team didn't realize how bad students were struggling until the end of the semester. In these situations, accommodations were made for the students and notes were taken to add to the business continuity plan for future crises (Interviewee #2, personal communication, 7-22-11).

The TAMUG Crisis Management Team relied heavily on the process management in place at the TAMU-College Station campus, but had to develop and manage several of their own processes to get to that point. Working closely with College Station counterparts and through the campus website FAQ system, TAMUG faculty, staff, and students educated on the TAMU-College Station processes and assimilated into the TAMU- College Station systems. In those situations where processes were developed, data was obtained as to the effectiveness of the process for future crisis situations as the timing often did not allow modifications during the ongoing crisis. The greatest failure in the process management was the elimination of the approval process for distance education which allowed unsuitable coursework and untrained faculty to teach students at a subpar standard that ultimately reduced the value of the course to the students. This failure to properly manage this process is routinely

cited by many of the crisis team members as the greatest failure in the crisis response (Interviewee #5, personal communication, 7-29-11).

Business Results

*Tracking and Using Key Results - The **Business Results** category examines the organization's performance and improvement in all KEY areas—student learning outcomes, customer-focused outcomes, budgetary, financial and market outcomes, workforce-focused outcomes, process effectiveness outcomes, and leadership outcomes. Performance levels are examined relative to those of competitors and other organizations with similar educational program and service offerings.* (The Texas Quality Foundation, 2009). The following analysis and findings of business results are derived from questions that are established by the Quality Texas Foundation- Engagement Level Criteria and outlined in Appendix I.

As one of the challenges the TAMUG Crisis Management Team faced was the ability to get results to shape future decisions, the TAMUG Crisis Management Team developed several approaches for securing results of the policy and process decisions that were made. There were efforts to get results in a number of different areas. The first and arguably most important was student learning. Assessing student learning is always a challenge and typically left to the instructor to determine what successful learning looks like. When the review of the final semester came back, overall the students did not decline in performance in a significant way. As one of the team members stated:

Well, again, I can't claim we improved learning here a lot. We tracked it very carefully. There was a dip in terms of student performance academically for that semester which is not unexpected given the loss of time and the emotional and physical transitions that occurred here, but long-term, it appears -- I've seen this only vaguely, but it appears there was no permanent damage done there. The people recovered.

In the spring semester, they got back to the campus and they were right on track to continue their studies and get well. So, that part, I think worked very well for

us there. The formalization here can be measured by the fact that people take licensing exams, certain things like that, certain kind of tests and they graduate, so then we had a graduation in December there probably maybe 20 or 30 less than normal, but we got a pretty good size regardless at the summer here, which was good for them and the following May was good too (Interviewee #11, personal communication, 9-9-11).

One team member described the classroom success and student learning experience on a more personal level as a faculty instructor at the time of the relocation:

They graduated. It is impossible in my opinion to measure learning adequately – let me be careful - adequately assess learning in order to see a difference in this case. The difference, if there was a difference was in the noise level, and my ability to measure it. But my ability to measure learning is really, really poor. I don't trust most of the ways we commonly use to assess learning. Assessment in general is very, very difficult and very expensive to do well. And in this case, we had neither the time nor the money to do it well. That is my gut instinct as a faculty member, not as staff, for my class, the [deleted] course.

I had four students who went fully online that didn't move up there. I had about three or four students drop out of the thirty-three or so I had in my class, and the rest showed up in College Station. So I actually had less than 91% of my students show up in College Station, but 91% of my students successfully completed the course because I was able to move them to distance. And in MARA (Maritime Administration), we tended to have more students in the MARA department that stayed behind because of internships and so, I think. That's my gut feel from talking to other faculty. But I was able to accommodate at least at my course.

The first question is if my course objectives, what percent do the students learn? I like to think I'm at 80%, that my students typically achieve 80% or so of my course objectives. That's what I like to think. Now, that could be 60, that could be a 100 but I don't know. I'll argue with you. I don't think it's less than 60% of my course objectives. I don't think it's over 100. I honestly don't think it's over 90, but we could optimistic. So if my noise level is 40 and my guess is 80, I think the students at the end of this semester who showed up in class there hit 75% of my course objectives. So my gut -- I think the students who went fully online hit 70% of my course objectives, because there are a few things I didn't do and now I would do if I had time I would have done which is do some video recording pieces and some short clips of some of the key lecture things that I did in class that I would have shared with them better. I just gave my PowerPoint. I would have done at least a voice over which would have been better.

So if 80% is my normal success of hitting 100% of the course objectives, I think I ended up at 75% for about 80% of the students and 70% for about 10% of the students and of course a 50% loss. So that's my gut as an instructor. I think one of the math courses in particular probably went from 50% to 60% down to about a 25%. That's probably the worst case. I suspect, I don't know of anybody that I would argue a lot didn't lose at least 5% of the learning objectives. Retain the academic experience and quality. I mean, we have it on there. That was part of the discussion. We weren't going to just pass people. We're going to make sure they learn the material. I think there was a strong commitment to maintaining academic quality along with -- I think that's brilliant academic experience. I think that's a very worthy goal for both the experience and the quality of experience.

Assuming that, I think we lost a little bit. Probably very much in the noise level of how well we can assess learning, because I think the noise level is at least 20% both of sides or 10% both sides by 80%. I want to get on. There's no way in hell I would argue that I can better -- my students are probably between 70% and 90% of my course objectives, that's as close as I could ever argue. I could never say it's 80, my gut says 80. The 5% is in the noise level there.

Certainly, within the class, you have students who are zero, because they never come to class. The students who pick maybe 90%, I don't think very many students succeed 90% of the course objectives in the sense of truly mastering the depth of stuff. I have all my objectives - But the ultimate thing came down the art of the doable. It was either zero - we didn't go back in the classes - or we compromised and we got what we could. My net result in my one section and they're not freshmen typically because it's a 200-level course, mostly who had juniors and seniors in this case. My class, that section was mostly juniors and seniors so there's a clearly different population. I think I lost about 5%. That's well within an acceptable tolerance in my opinion compared to zero if we didn't continue the semester (Interviewee #5, personal communication, 7-29-11).

In the end, no students were academically suspended as a result of grades received from the semester. The university felt the circumstances surrounding the hurricane and resulting relocation precluded such a decision (Interviewee #1, personal communication, 7-18-11).

There were other areas where results were acquired. Stakeholder satisfaction/dissatisfaction was a major concern. After action reports, faculty surveys,

and student surveys and forums all provided valuable data to be considered in case of another crisis. Figure 1 demonstrates the faculty opinions of TAMUG administrative and student academic responses to Hurricane Ike. Although the amount of respondents was limited to only thirteen, eleven of the faculty thought the administration did excellent or good versus the two whom indicated poor. That number doubles to four who thought the students did poorly academically in response to Hurricane Ike. Individual surveys on a host of other issues including housing, staff support, parking, research support and other factors captured valuable insight on areas to improve upon. The student satisfaction with the academic quality was also surveyed with much more mixed results.

Figure 1. Faculty Opinions of TAMUG Administrative and Student Academics Responses to Hurricane Ike

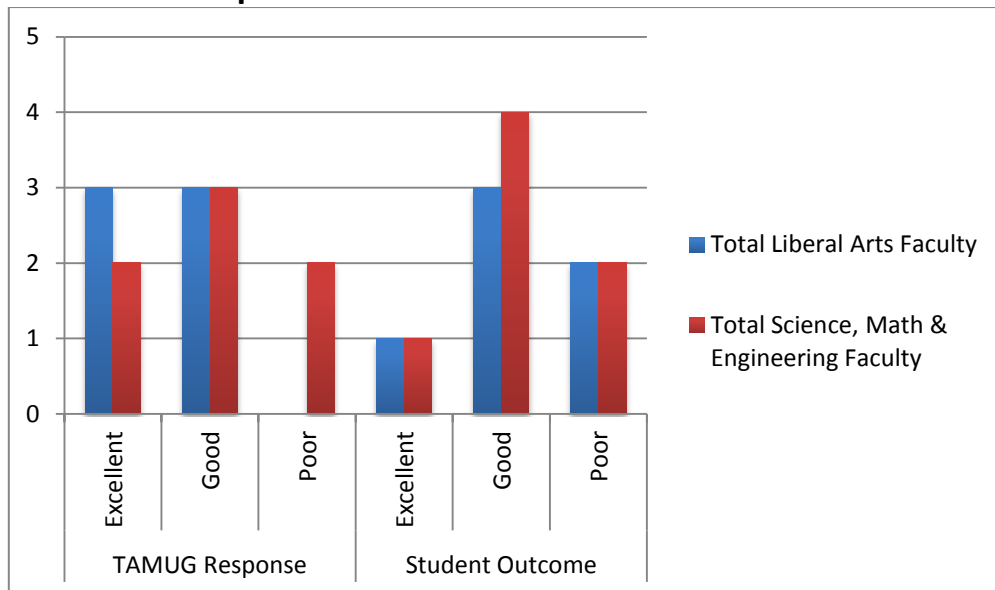


Figure 2 includes a number of graphs reflecting the perception of the students with regard to the academic quality of the College Station experience.

Of particular note is only a little over 50% felt the academic quality of the courses were maintained in the relocation to College Station. Furthermore, many perceived the on-line courses as being subpar to the classroom-based coursework to which they were accustomed.

Figure 2. Student Assessment of Academic Quality of Relocation

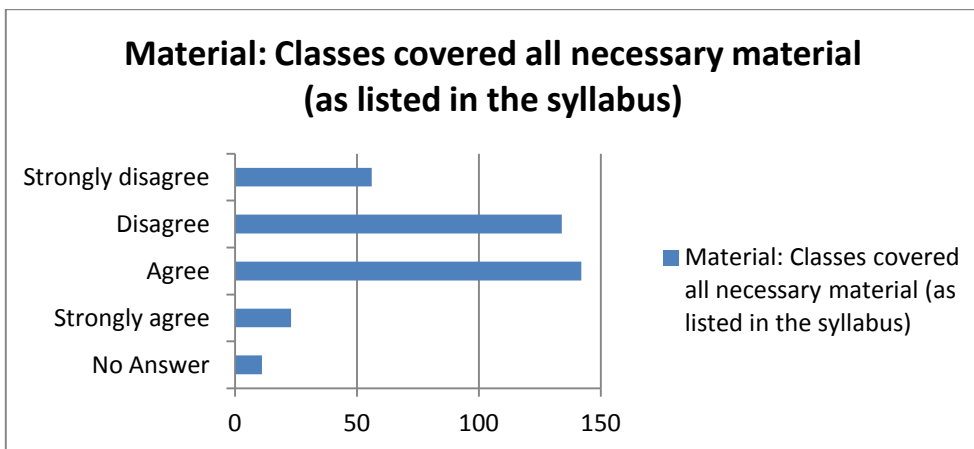
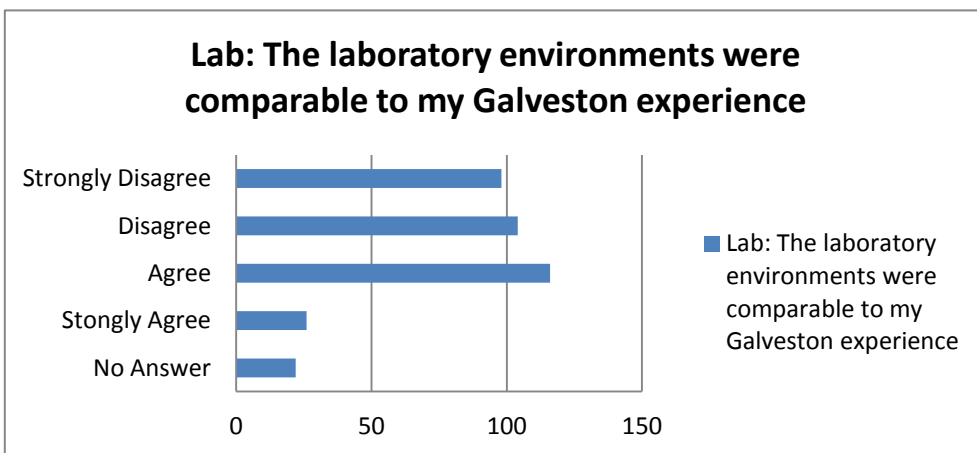


Figure 2. Continued

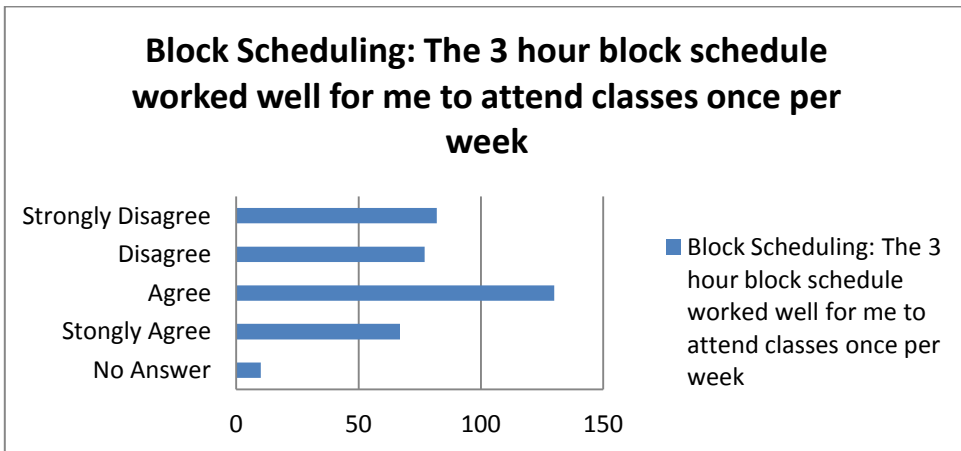
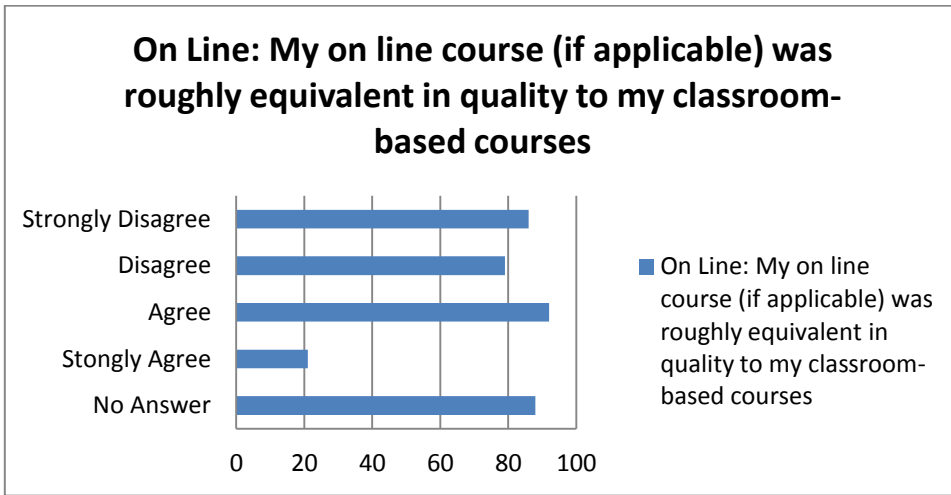
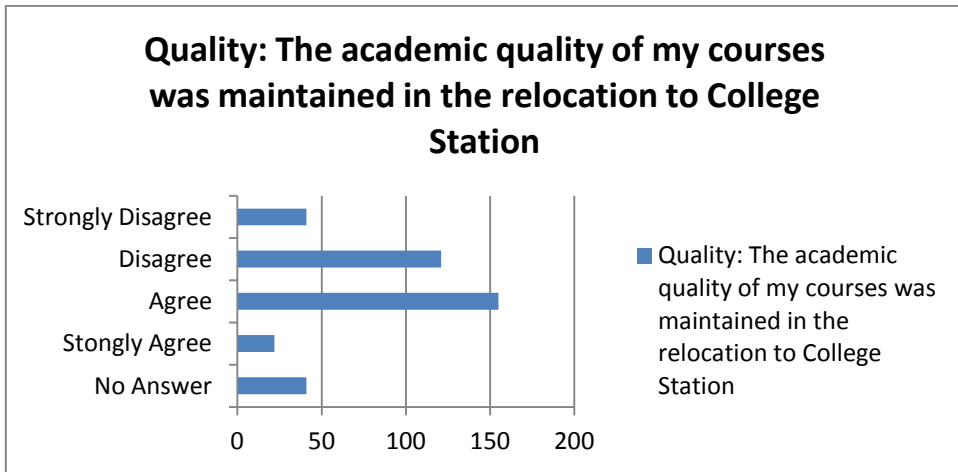
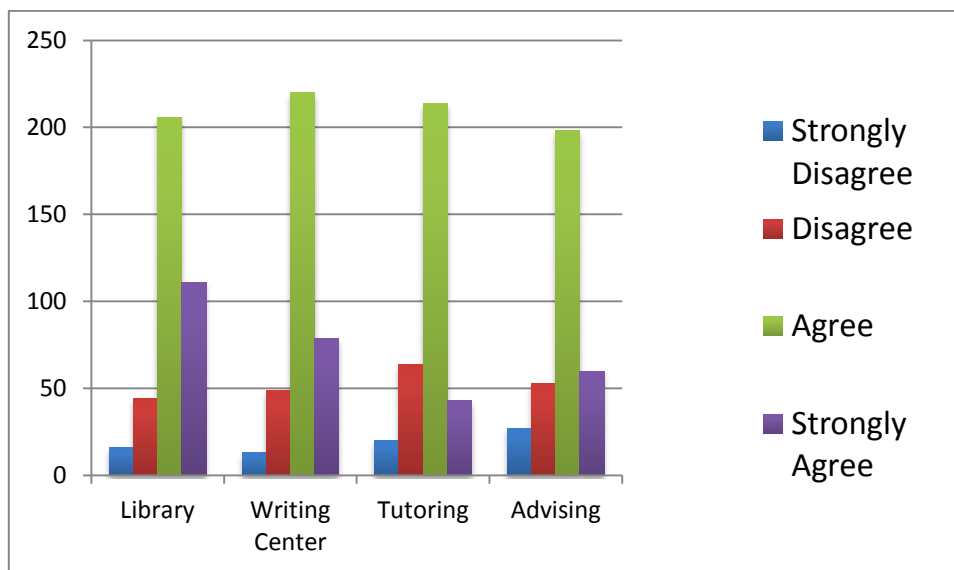


Figure 3 demonstrates the student perceptions of the academic support services.

Additional survey questions provided an opportunity to suggest improvements as well as the biggest positives and negatives of the experience.

Figure 3. The Academic Support Services were Satisfactory



The business results for the budgetary and financial performance would not be available for months after the crisis when the last FEMA reimbursement and legislative actions were completed. As Tables 3 and 4 demonstrate (located on pages 154-159), the university ended up doing fairly well financially in comparison to how other institutions struck by hurricanes have fared. Between the strong retention of students in the Spring

and following Fall and the strong financial showing, many TAMUG Crisis Management Team members felt fairly positive about the crisis response. As one stated:

I think we do but only in a very, very general sense and those were the things that we looked about as far as how many students did we take to College Station successfully and maintain during that semester? How many students did we bring back in the spring? Did our retention rates drop off? We were very successful, I mean it floored me what we were able to maintain going into the spring semester, because I thought after -- the students were sort of bound to us in the Fall, they didn't have a lot of choices at that point, but certainly, they'll leave, they won't come back in the spring and Galveston looked like crud, bringing them back here, it was a terrible environment coming back and they survived that and then they graduated at the same rates over time.

So those student performance indicators were all in place. And then, you can look at us financially and what do the numbers look like as far as the losses- were we able to get reimbursed- and we're pretty made whole at this point based on FEMA. I think one of the things that happened on both sides, both financially and students for example was when as soon as the storm hit we made the decision, the students could come to College Station have all the tuition and fees and everything applied to be cost neutral to stay in the semester or you could withdraw and use it for the following spring semester and we'd move your tuition and fees to the spring or you could cash out 50 percent; those were kind of your three options.

That saved spring is what the students that did have to leave said, "Okay, I'll withdraw. I'll move it to spring." If we would have lost those students then we would have lost that revenue and we wouldn't have been able to put back Spring. We would have much more serious financial consequences than we did. Did we have the authority to do that by policy? That was one of those big "we are out on a limb" things that Loftin said, and we were fuzzy with the Texas Higher Education Coordinating Board and payment guidelines everything was in order, just do it, this makes sense and we were in it, it was a good thing to do on hindsight. If it would have blown up... I don't know, we would have to figure something else out.

So financially, I think we are pretty made whole and then you could look at us too from a sense of facilities or some other things where we're better now, because we've rebuilt. It's newer. It's stronger than it was before the storm, but I don't know if we got down to like really tactical level of performance measures, it was just the bigger picture stuff (Interviewee #1, personal communication, 7-18-11).

Although the TAMUG Crisis Management Team developed several initiatives to increase workforce engagement, they did not have clear measures of workforce engagement. The surveying that was performed for the students and faculty was not performed for the staff. The staff were engaged in the after action reports and provided professional counseling, but the only measure that was attained was the retention of the staff after the crisis was over.

Well, not many quit. [Laughs] People again felt very committed to the cause. We were in this together. No one--everybody worked themselves silly from me on down and there was nobody, I think feeling like they were being treated different than anybody else. With a few exceptions of staff who just couldn't make it work for a few different reasons.

Everyone got back into the mix very quickly and gave everything they had to it and beyond I think, working very long hours, taking on different kinds of jobs they hadn't done before and so it was learning curves and areas of unfamiliarity here, but again, this sense that we had a purpose -- the principles were out there in front of our body. In fact, we were trying to get this job done and take care of the students both here and get them back to Galveston in January were clear drivers just like Apollo Program - Get to the moon in a decade, okay? It was very clear.

So we had to get them to College Station, into the semester, and then get them back again. We had a very clear simply stated mission to accomplish here and everyone knew they have a role to play in it and they did. And that motivated them in ways if you seldom get motivation I think done through other means (Interviewee #11, personal communication, 9-9-11).

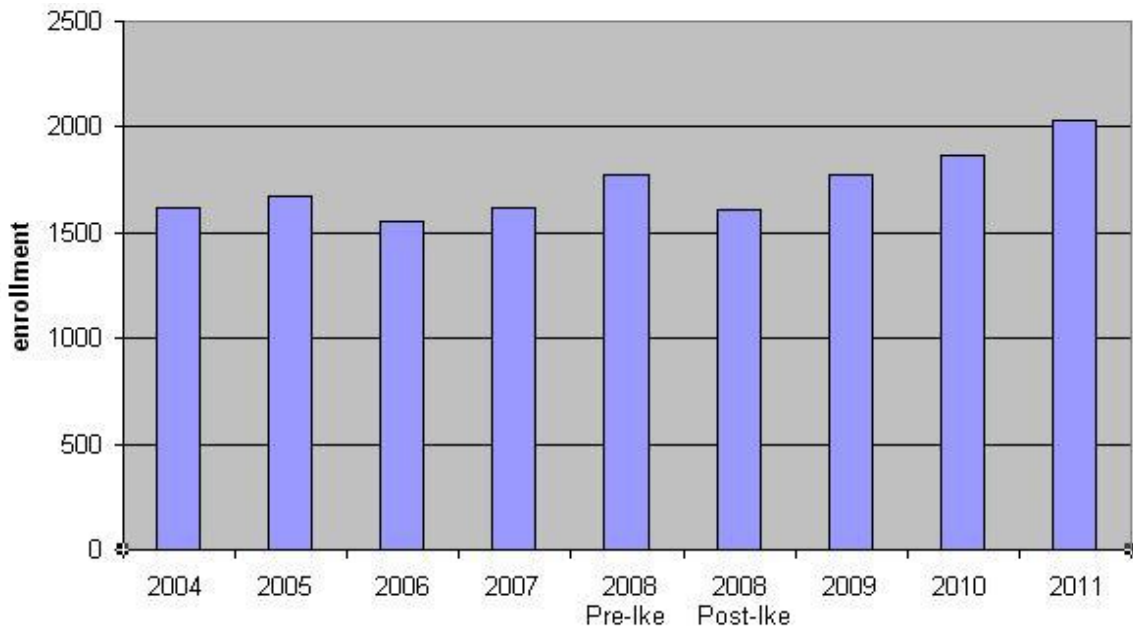
That was not the case for operational measures where the TAMUG Crisis Management Team had a number of key measures for their key operations. Their primary operational goal of keeping students on track academically was demonstrated by the number of students who graduated in December and the following Spring being consistent with the number that were anticipated prior to the storm. (Interviewee #11, personal communication, 9-9-11). Secondly, the fact that all classes and labs were reconstituted and assigned to compatible classrooms and labs in College Station was

key. No courses had to be eliminated, and all critical equipment was available (Interviewee #5, personal communication, 7-29-11). Furthermore academic performance declined somewhat overall but was still very much within the range of a successful semester especially considering the crisis and trauma many of the students had experienced (Interviewee #10, personal communication, 9-8-11). Third, every student who needed housing was assigned to a safe, furnished property. Fourth, the information process was successful in that every faculty, staff, and student was accounted for and contacted allowing the relocation process to move forward (Interviewee #4, personal communication, 7-27-11). Lastly the financial analysis that eventually assessed the operational plan found that the TAMUG Crisis Management Team had actually saved TAMUG financially by taking the actions that they did (Interviewee #6, personal communication, 8-2-11). One team member referenced some of the measures:

The percentage of people that showed up in College Station, people graduating in December, those kinds of things I think are the biggest. Secondly, the housing and classes - we got them housed however adequately. None were grossly inadequate. Classrooms, none of the classrooms we put people in were bad enough that they weren't at least adequately successful in their stuff. I don't think -- if my sort of 80% stuff, I don't think anybody lost over 5% over the norm because of the classroom. There may have been people who lost 10%, more than 5% because the classroom was that I was assigned in. But we got labs into labs, we got my class that needed a computer in the computer rooms. We were at least -- I don't know of any classrooms that at the end of the semester that were inadequate for teaching their subject. I know there were ones that were marginal -- SBISA Dining center - because of some of the sound stuff. No matter what we did, it was just a big awkward room and there was a lot of noise next door. So there may be one but I mean the labs, as far as I can tell from talking to people, they all got into a lab that let them do their dedicated lab courses at least adequately. Some of them took field trips and so on. So, that was a big measure in my mind (Interviewee #5, personal communication, 7-29-11).

A much larger measure that was heavily considered by the TAMUG Crisis Management Team was the overall accomplishment of the organizational strategy and action plans. Obviously the relocation was the first time the TAMUG, and perhaps any other institution, had attempted the business continuity plan component of the crisis management plan. Nearly all other institutions had responded by simply closing down for a semester or two until the campus could recover with often huge impacts in their ensuing enrollment. TAMUG itself utilized this strategy to some extent immediately after Hurricane Alicia and suffered a resulting enrollment setback that took nearly a decade to recover from. The question for the TAMUG Crisis Management Team was would the stress and difficulties of the relocation process cause a similar decline in students. The measure of enrollment in the following Spring and Fall found absolutely no drop off in enrollment with the Spring immediately following showing a record enrollment 1563 students for the university (Interviewee #7, personal communication, 8-9-11). Figure 4 demonstrates the TAMUG enrollment figures prior to the storm and the eventual enrollment for the following years.

Figure 4. Texas A&M University at Galveston Fall Enrollment Figures



Preserving this enrollment trend while delivering on the rest of the mission of the university was a fairly solid measurement in the eyes of many of the TAMUG Crisis Management Team members:

Well I mean, we graduated students that were intended to graduate in December, and students continued their education for the most part - I'm assuming some chose to take a break in their course work, because they didn't want to go to College Station - but for the most part, what we as a campus have as a mission, we were able to fulfill, and I think we did it across the board. I mean it wasn't just that they went to class - they had their activities, they had their intramural sports, they had access to tutoring, they had access to the writing center. It was a little maybe unorthodox, but I think they had access to all of the kinds of things that they would have access to had they been in Galveston. So on a very broad sense I think we as a campus were able to fulfill that broad mission, little unorthodox, but we did it. And were able to continue on as a viable institution back in Galveston the following Spring (Interviewee #2, personal communication, 7-22-11).

Other key business results of interest to the TAMUG Crisis Management Team included key measures of ethical behavior as well as regulatory and legal compliance. When asked about the key measure of ethical behavior, several TAMUG Crisis Management Team members identified the fact that TAMUG did not terminate a single employee as a result of the crisis despite most business on the island doing so. “But that was huge; it was huge for me personally. I gave more because I knew A&M was standing behind us and that I was and being so much a part of this community I had very, very dear friends that were so hurt, because they lost everything and then they were left without jobs and sometimes both jobs, and there’ll be health issues and there’ll be --.

It was terrible and I am thankful that I think A&M did a really good job. Its the best that we could do” (Interviewee #1, personal communication, 7-18-11). The fact that TAMUG delivered upon its promise of education to the students at no additional cost to the student was another often cited example of ethical behavior.

Probably the biggest measure of ethical behavior is the net neutral --the no net loss. I mean it was a big ethical statement for us to make as an institution. I think it was ethical and I think we did get, you know, reasonably close. The other big ethical statement was letting our students that didn’t come back credit everything to the Spring. I think that was the ethically correct thing to do, very difficult choice to make and to carry up. And -- in retrospect we got people to believe it was legal. Whether it was or not, who knows? The intent was consistent with law, clearly. I mean the intent was let the students pay for school and get school, but have them not pay if they don’t get something. Well, in this case they didn’t get something, so we gave it to them. You could argue that I suspect. I don’t think the legislature anticipated that event and would have -- it wasn’t written into the law to allow, let's put it that way, but it was the ethical thing to do (Interviewee #5, personal communication, 7-29-11).

Furthermore there were a number of measures of regulatory and legal compliance. The state already had a number of processes in place to ensure compliance and TAMUG

worked closely with such agencies as FEMA and the Texas Higher Education Coordinating Board throughout the crisis. In addition, an audit was performed that further confirmed compliance with state regulations and rules.

We had a formal state audit done, right in the middle of all these. Inconvenient, but again vital in a sense it documented very thoroughly what was going on in there and that's a public record. That's available to us right now if anybody wants to see it basically.

We also have our actual reviews. We did a formal review after the fact to what we did. So, we have all those things which I think measured what happened and documented and formalized all of that, so that part was done pretty well. We did some specific things here in terms of I'm looking at certain areas where we felt we didn't do well and those are available to us as well for down the road to utilize. It's had to have been used, I'm sure, in terms of the plan revisions and that sort of thing (Interviewee #11, personal communication, 9-9-11).

A final measurement that could be obtained was the organization's fulfillment of its societal responsibilities. Many TAMUG Crisis Management Team members refer back to the graduation numbers and keeping students on track academically. These things were confirmed by the Legislative Budget Board of the state legislature that made it apparent that Texas A&M University had done the right things for the right reasons (Interviewee #4, personal communication, 7-27-11). But many thought there was more. "We graduated students and we've supported our local community in effective ways even though they weren't part of our central mission" (Interviewee #11, personal communication, 9-9-11). TAMUG took care of its people and the people in the Galveston community.

Our societal obligation was to take care of our own and as many people as we could, and we did that. We put them in residence halls, fed them, gave them financial support, mental health support, you know a lot of stuff we talked about. In terms of commitment to the community, I've tried to use as many local vendors to help us out if I could... In the commitment to the community with

UTMB, we were prepared to bring them on campus and we did in some regard (Interviewee #3, personal communication, 7-20-11).

Others speak more to some of the intangible measures of meeting the societal obligations:

Well, I think that you can see in our key measures that we not only stabilized enrollment in the short term but we were actually growing by the following Fall is an amazing measure of performance that the key measures that we track for the state the retention graduation rates don't reflect a hurricane, it's huge. And then the intangible, the one that and I'm sure will decrease over time with the loss of historical memory but the goodwill that we have for what we did was huge. Not only in the Galveston community, because people recognize we didn't RIF people and we didn't do things; and we did what we had to do, but even at the state level... I mean, I was at one of the debriefings when Loftin was briefing and the Chancellor stood up to do a commendation of the people in Galveston, and he literally choked up and teared up, about what we had done and showing this. Also, like at the coordinating board, we are known as being very high quality institution now. We sail through with graduate programs and things that I don't know if we would have the same reputation, because they know we are going to push it out there and get it done. So there are some intangibles that have been kind of like yeah. I don't think Loftin would be the president of Texas A&M University right now, without this hurricane. I think that was the visibility and that sense of leadership that put him in that position to do this. (Interviewee #1, personal communication, 7-18-11).

The TAMUG Crisis Response Team had a series of significant business results as a result of their deployment of the Crisis Response Plan. Not all of the results demonstrated remarkable performance but many did. There were some challenges in learning and improvement to student learning, but the results demonstrated that over time, the impact of the Hurricane on the learning process was recoverable. At the same time, TAMUG demonstrated remarkable results in many other measures specified by the Baldrige-based criteria.

Ensuring Consistency of Approach

After discussing in detail the numerous strategies that the TAMUG Crisis

Management Team deployed in its approach, the second part of research question two considered the strategies that the team used to ensure a consistency of approach. In the rapid fire environment of crisis response, consistency in approach is always a challenge. Too often during crisis, various departments feel the need to respond immediately to their immediate situations, resulting in a fragmented response that is not systemic in nature. Although TAMUG utilized a number of intentional strategies, there were a number of structural realities that were in place before the crisis or came about as a direct result of the crisis that facilitated a more systemic approach to the crisis. For one, the very size of the campus and staff contributed greatly to unified decision-making. Although there certainly were challenges in accomplishing everything that needed to be done with a smaller staff, one of the benefits of the smaller staff was the culture of working together with other components of the university to accomplish goals. This already relatively small number was further reduced when the campus staff was split into those who would relocate with the students and those who would stay in Galveston to rehabilitate the campus. With each of these groups having different personnel and focused on different missions, the university in many ways acted as two completely separated and thus smaller systems rather than one large system. Additionally, the small group that was operating in College Station was compressed mostly into two working areas, the Grove and General Services Building with many sharing offices and work spaces. The long hours that were necessary in these close-knit working environments already contributed greatly to strong communication and awareness of each other's

operations, but this situation was even further augmented by the fact that the workers were located in a new community away from their friends and for some their family. As a result, even the typical social occasions like meals were often spent with co-workers where conversation often drifted to the day's challenges and accomplishments (Interviewee #2, personal communication, 7-22-11).

Still the TAMUG Crisis Management Team employed a number of strategies to ensure a consistency in deploying approach. The first was through the selection of leadership for the crisis management team. The team was very operational in nature, and the university was very intentional in assigning all of the major operational decision makers to the team. The result of this decision was a crisis management team that was fairly broad in the expanse of their campus responsibilities so when a decision was made within the group, it was immediately communicated to that broad constituency who could then communicate the message to their direct reports. With there not being a lot of depth in the organization chart, communication moved at a fairly rapid and direct line through the College Station-based component of the organization. In the early days of the Crisis Management Team meeting daily and then members immediately meeting with their direct reports, communication was immediate, direct, and pervasive. As needs evolved, so did the group which eventually evolved to the Strategic Operations Team, where new members were brought into the group to continue the participatory decision making and lines of communication. The same was true of the Galveston based staff, many of whom were living and eating every day on the campus together. The team in

Galveston relied on daily meetings to communicate priorities and gather feedback from the staff.

But I think the fact the meals are especially, because what happened with meals was we started more before we got the dining hall back up and running, when we were just a physical plant department working with our own staff. We had a barbecue pit and that's one thing about Tammy Lobaugh, director at the time, her strengths are crisis management in terms of logistics as far as I know. She had the barbecue pit going, and she knew where to get the food. She had to talk a little. On all that stuff you had Tammy cooking. And, so, Tammy was excellent at doing that. We had morning meetings and close up meetings at the end of the day where we could debrief everybody and find out where to set up for our next day's work would be or we need to focus the next day (Interviewee #3, personal communication, 7-20-11).

Another strategy that was deployed to ensure the approach was applied consistently throughout the work units was the communication of a clear organizational vision and more specific guiding principles. The TAMUG Crisis Management Team worked closely together on many of the key decisions, but eventually individual work units had to focus on their individual areas. The guiding principles established a framework that allowed individuals to make necessary decisions while being consistent in their approach. As one participant recalls:

But from watching the process unfold from that day through the next three or four months we went back to those guiding principles over and over and over again whenever there was conflict and there were multiple conflicts whether it was the -- how the parking tag worked and the thing or whether the students could get a shot in the health center. It was that kind of thing that you kept going back, "No that's not what we agreed on. These are the guiding principles", and I put those in here just for my notes. I'm not even sure that they were fully articulated, but those guiding principles were that we would maintain the academic continuity of all classes because the classes were already in progress and maintain the relationship between the faculty member and the student. That was huge, because that changed the model that I had built before hand and that was a significant paradigm shift that happened that had some interesting consequences, but it absolutely made sense in hindsight - They would need to

stay together and anyway that was important (Interviewee #1, personal communication, 7-18-11).

One of the main approaches that was clearly defined through the organizational vision and guiding principles was the approach of keeping the Sea Aggie identity as much as possible. With less than 2000 students on a campus of 45,000, this was not an easy task and required a heavy emphasis in the first few weeks. Rebuilding the course schedule with students remaining with their TAMUG faculty and housing TAMUG students together as much as possible were two massive undertakings of many that involved a large percentage of the workforce available to the team. With such a high percentage of available staff allocated to working on this challenge in the very early days of the crisis response, the approach was deployed by being clearly reinforced in the minds of all involved. Furthermore, those initial efforts of building the course schedule and housing students together resulted in other priorities that were highlighted (locating classrooms, furnishing apartments, etc.) that kept employees focused on the approach for some time. With this heavy emphasis and large amount of manpower devoted to this approach for an extended amount of time, the entire system was dedicated toward consistently deploying this approach. One of the participants speaks about the approach:

One model we looked at for a while - we would just plug in the students in the courses here but since we are already into the semester, it seemed to be very inappropriate especially for freshmen students, freshmen students who were really unacquainted with anything else. To take them from one place to the other and almost guarantee perhaps a lower success rate on the part our students academically by doing that and so I thought it was a harder thing to do than just plugging students into specific holes and just in classes here in College Station. Given the relative sizes, that would have been very practical actually to do but we made that decision which drove several decisions beyond that. We had to then locate real classrooms that were empty. We had to locate laboratories that

were empty and we ended up going into odd hours, weekends, and even going off campus for the number of those activities.

Ultimately those principles we actually selected there but again the idea was to make it -- make it easy as we could for the students to be here and I think that was proven by 92% of the students persisted here and those that didn't had very specific reasons, typically family connected, perhaps job connected they were working because of -- to inhibit their relocation here (Interviewee #11, personal communication, 9-9-11).

After the initial leadership structure, organizational vision, and guiding principles were deployed to guide employees, one of the next immediate concerns was the distribution of information to the students and parents who would be considering relocating with the campus. Ensuring that information was delivered and questions were answered in a clear and consistent manner was another challenge for the TAMUG Crisis Management Team. Once again they fell back to a systemic process to address this challenge. Students and parents had been directed to the webpage for information throughout the process and the webpage continued to be the central hub for information. For individuals who had questions that were not addressed on the webpage, several phone numbers were provided that rang into a room lined with paper. Working the phones were various staff members who had lists of the frequently asked question who would try and answer any question from that list. If the caller asked a question that was not on the list, the answer was written on the paper on the wall, the TAMUG Crisis Management Team members would answer it, and then it would be added to the web posting of the most frequently asked questions. This process was exhaustive to many of the employees as many of the questions were asked repeatedly even though the answers were posted online. As one participant remembered:

The only thing that I would say about that is we really--at every stage, the first few days of that mad housing rush; we said the same thing over and over and over and over again into this, you know at every opportunity we said it. I think we kind of did the same thing with "Right, this is how your class is going to work. Here's how your finals going to work. Here's how the holiday's going to work." You know we just had to say everything over and over and over again which is fair, I mean it was a lot for people to take in (Interviewee #4, personal communication, 7-27-11).

As this process evolved, eventually an expansive list of questions and responses were developed, and as many of the staff worked the hotline for several days, a comprehensive understanding for how the university was going to respond to the crisis was developed and understood. Although the experts in each area were often called in to address questions, the sheer numbers of calls necessitated workers frequently handling calls that would typically fall out of their area of expertise. This resulted in the employees who worked the hotlines having a broad base of knowledge to draw from and further facilitated a certain level of consistency in approach.

I mean certainly the website and updating it regularly and timely and on a schedule was critical because it built an expectation that they would be told when things happened. And an assurance that they had been told everything we could tell them and the Frequently Asked Questions - posting and constantly adding the Frequently Asked Questions were a huge -- I mean, when you really think about it, maybe in retrospect I miss the significant piece of just that, that FAQs were a big piece of that. Because those were questions we got from one person, that we said other people had this question too, and we regurgitated.

Well, No; first we formulated an answer. In many of those cases, we couldn't answer the question when the first person called because we didn't know the answer. And in a number of those cases like we alluded to earlier, we made up the answer. And then we all swore to secrecy and said, you lie and I'll swear we're sticking to it. "It's got to be cost neutral." "We're going to start on Wednesday morning." We all just sort of made this big lie and made it happen then and so we made it truth but it was self-fulfilling prophecy. We just had to wing it.

Now at least running FAQs helped us all as it made us consistently wing it. And we at least thought about the answer rather than flipping coins on the phone. So the FAQ process was a critical part of the dialog that occurred in retrospect, I think because they grew regularly and you and I attended a lot of meetings where somebody -- Karen walked in and said a student asked this. We said, 'what did you tell them?' I don't know, I'll get back with you. Okay, good answer. And then we made up an answer.

And continue to build that knowledge base because what it became was a knowledge base and our only knowledge base because a bunch of the stuff was made up and it was new to us. It was FEMA rules and stuff that we'd never been exposed to before that we had to go research or get somebody to research and come back and present it in an understandable format, which was always hard with the federal government. And so, yeah, that was something in retrospect. It certainly worked up quite effectively up through about the first week of classes, after that I'm not sure we updated it. But I remember a lot of discussions around trying to come up with an answer to those questions. We occasionally rescrubbed them, changed some of the answers on the Frequently Asked Questions when we found out we couldn't do that or it was a really phenomenally bad idea (Interviewee #5, personal communication, 7-29-11).

Once the initial part of the crisis passed, the students began working within the routine of attending class, a process they were familiar with even if it fell within the system of the TAMU- College Station campus. Unfortunately this was one area where the university's system of ensuring consistency faltered. Prior to the hurricane, the university had required any faculty seeking the ability to conduct their class through distance education technology would have to secure approval through a distance education committee. Through this process, syllabi could be reviewed as well as appropriate training and support identified for the faculty member, and quality of academic quality could be preserved. Unfortunately in the process of facilitating faculty in the relocation process, the approval requirement was waived and a number of faculty opted for distance education courses without prior training or course approval. This resulted in courses that were already fairly inappropriate for distance based teaching like

Calculus for freshmen being taught by instructors who were not qualified to use this medium, resulting in wildly inconsistent quality and performance in many courses. As one of the team members described it:

We have a policy that says, if a class is going to be a distance course, over 51% of its contents presented online versus face to face, it has to have department head and VP for academics approval. We waived that. We wouldn't waive that next time, not if I have a jolt and Seitz has appointed me as the distance coordinator for, as our official distance coordinator right now. And I've talked about it and that would be the thing I wouldn't change, the math. We start so far in the hole with those particular faculty; their face-to-face classes are marginal. In fact, in some cases they are below marginal. Look at the failure rates. So do we screw them a little bit or we screw them a lot? I mean, in the other courses where the faculty were performing already at a more acceptable level, we had little much less issues. The place we had the issues were with faculty who were the weakest to start with which is predictable, but we're probably not performing very well in the first place. And during the situation, when I was here talking to a couple of those faculty and trying to advise them on how to improve what they were doing, they didn't listen.

The difference was, I had taught my course fully online already, so I developed a hybrid course. I'd had a couple of cases where students needed to graduate, and I had taught my course fully online already. Here, but fully online. I never met them face to face and in one case I met them once face to face or no, I proctored test three times; once first day of class, midterm, final. The only time I saw the students all time was during tests and the rest was fully online, so I've done that twice; two semesters with two different groups of students for their personal reasons.

And we've gotten approval that the distance sections need to follow our rules and I was trying to talk to at least one of the faculty, who is one of our weakest faculty, in my opinion. They did the distance and it kind of worked but that's why she's weak in the first place. They never listened in the first place about how she ought to teach. And she's too weak, I had just an opportunity to see and experience that syllabus for her course. And I thought besides not meeting the spirit of the law, it didn't meet the letter of the law either. Her course objectives that we're supposed to put in her syllabus was the sentence out of the catalogue which was horribly written - describing the course as a series of sentence fragments with no verbs, no adjectives. Vectors, period, Angles, period. It's the worst syllabus I've even seen in my whole life. Now that person wasn't succeeding before this distance. Certainly I could have told them how to succeed with this and they didn't listen when I tried to help. I physically drove down

there and talked to her. So there will be failures. There are failures with various departments all the time. The faculty, just as the students... I assessed accurately that they didn't know what they were doing to put it in proper terms, the politically correct terms.

So yeah, there was a failure there. The prevention would have been - we might have mitigated it happening by making it be approved. The odds are Gil would have approved anyway. But we waived our approval process. We shouldn't in the future way but we should be very -- we should learn from this experience and be very careful (Interviewee #5, personal communication, 7-29-11).

Summary

TAMUG used a number of strategies in deployment of the approach. The plan had been very strategic in nature and did not provide much in the way of detail for the Business Continuity component of the plan. In fact, very little guidance was provided about the students or workforce beyond their safety and security. In fact the preservation of the campus Sea Aggie culture and identity became a major strategy during the course of the deployment, yet the plan actually worked against that strategy to a large extent. Still, the original plan of relocating to TAMU-CS where many of the processes were familiar and could be adequately managed proved to be critical in the deployment and contributed a great deal to the success of the crisis management. The business results that came out as a result of the deployment greatly support this notion of success.

In addition, TAMUG did not deploy too many strategies to ensure consistency in its approach, because there were already a number of aspects that naturally contributed to a well-coordinated approach. For one, the smallness of the campus staff was further reduced due to the relocation that left part of the staff in Galveston and part in College Station, each with its own fairly distinct mission. The group in College Station was further consolidated in two main locations which further facilitated coordination and

communication. The strategies that were deployed utilized a broad operational composition in leadership that shared decision making and utilized direct communication to staff to ensure clear messaging. Frequent meetings of this group and subgroups ensured rapid and consistent messages that aligned with the organizational vision and guiding principles of the crisis response. The very implementation of the initial steps of the guiding principles required large effort and staffing to further bring focus to the goals of the crisis response. In addition, the first steps of the response in refining the communication and instructions to the students further honed the organizational vision for a large number of staff. The greatest failure is ensuring consistency across the work units was dropping the standard of approval for distance education which allowed great disparity among the different distance education courses.

Key Findings

1. The TAMUG Crisis Management Team had the authority necessary to make any decision necessary to progress through the crisis. The representation of the team covered most operations of the university and due to the longevity and familiarity between many of the crisis team members, there was a high level of trust between team members as well as from the staff and faculty of the university to the members of the team. The fact that the employees of the university trusted the leadership team and that the university retained all of its workers further contributed to employee morale and commitment to the relocation effort.

2. The crisis management plan was critical in guiding the team members through the initial stages of the crisis. Not only did the advance development of the plan provide

for thoughtful reflection and planning on appropriate processes and response, it facilitated collaboration and familiarity between colleagues from different campuses to critically consider potential solutions. These collegial relationships could not have occurred in the urgency directly following the crisis when the stress and trauma of losing a home further complicated the decision making of many of the participants. Instead a plan that was not without faults provided a solid pathway and guidance to crisis team members during a time of great unknown.

3. The organizational vision of the relocation and specifically the guiding principles proved to be extremely critical through the relocation. The crisis management plan could only be expected to provide broad guidance through the initial parts of the crisis, not the more specific issues that arose that were unique to the situation. The guiding principles provided the framework to guide employees in making appropriate decisions in line with the leadership team's message. There were some challenges in better defining some of the principles, in particular the principle of cost neutral and what exactly that meant to students, staff, and faculty.

4. Process is incredibly important in crisis situations. There was a real effort to keep processes as simple and familiar as possible for students, staff, and faculty as they dealt with the crisis. Efforts were made to employ step by step processes to eliminate confusion as students began the relocation process by surveying the students, then registering them for classes and housing and orienting them all within a series of lines over two days. Although class location was different, familiar classmates, material and instructors provided a similar process to what was experienced in Galveston. In fact, the

greatest criticisms of the crisis response came from those situations where processes were significantly changed such as allowing faculty who had never taught distance courses to convert their class to a distance education course. For the most part, faculty and staff were able to utilize familiar processes due to the satellite campus relationship between Texas A&M University and its Galveston satellite campus. The familiarity of these processes balanced the challenges of new processes such as organizing donation drives and coordination of events on a less familiar campus.

5. Preserving the Sea Aggie Culture and Identity became a major concern in the deployment of the plan. Seeking opportunities to communicate the values of the institution, working to develop familiar structure for the students through course scheduling and housing and emphasizing socialization through activities and interaction were continuous themes as the Crisis Management Team developed strategies to keep the students, and to some extent the faculty and staff, engaged. The relocation was an effort to keep TAMUG viable, and the TAMUG Crisis Management Team did not want all of the freshmen students to bond to the TAMU- College Station campus and transfer to TAMU- College Station at the end of the semester. Keeping the classes together, housing them together as much as possible, various intramural/ student activities, and many other activities were purposefully coordinated to facilitate the bond between students, staff and faculty in hopes of returning the entire student body to Galveston, an effort that was largely successful.

6. Communication during crises is critical, and the Hurricane Ike crisis was no exception. Communication was often difficult after the storm with people relocated

across the state, electricity out for most of Houston and surrounding areas, and cell phone coverage poor or unavailable. From the constant communication to the students immediately after the hurricane's landfall to the numerous student forums and emails throughout the semester, TAMUG worked diligently to communicate with the student body and assess their progress and keep them connected to the university and each other. Communication was equally critical in confirming the safety of the university employees as well as confirming their ability to continue after the storm. Staff members were located, provided instructions, and immediately went to work on their phase of the plan whether than entailed working back on the campus or driving to College Station to assist in the relocation. Communication was key to mobilizing the plan.

7. Course scheduling was one of the most complex and difficult processes of the relocation plan. Locating and communicating with teaching assistants, adjunct faculty whose day jobs may be relocating them, and full faculty that have research obligations, confirming their intention to continue the semester, locating classrooms on and off the campus that are appropriate for teaching, developing a schedule and registering students is already a complex issue. Performing this action in a matter of days with a limited number of trained staff is especially trying. This process was further complicated by a report with bad data and the fact that many of the courses are specialized to an extent where they were not easily replicated in TAMU- College Station. This was especially true of many of the maritime classes where special trips to the Houston ship channel had to be coordinated. Further complicating the process was the ever changing number of

students who would relocate, a number that initially was estimated at 60% but grew to 90% by the day before registration.

8. Securing housing for faculty, staff, and students was another complex issue for the university. Housing was one of the first issues that needed to be addressed, and it was a challenge that the Texas A&M system waded into without much legal certainty. While working with the off campus housing office to identify available housing, the system real estate office was developing leases for faculty, staff and students without a precedent. The university hoped for and eventually received FEMA reimbursement, but the identification, furnishing, and payment for the housing was an incredibly difficult operation, yet was critical to the relocation's success.

9. In focusing on their workforce commitment, the TAMUG Crisis Management Team understood the difficulty and trauma faced by many of the workforce and possibly even compounded by the relocation of the students. Families were split which would already be difficult, but after a hurricane had devastated the family home, compassion and flexibility were emphasized. Housing in the residence halls and leased apartments was provided for those in Galveston who did not have a safe home in which to live, and flexibility of work schedule was encouraged as much as possible to allow employees to work on their homes and see their families.

10. Although the size of the staff was a challenge in many ways, the smallness greatly enhanced the coordination of the approach. TAMUG's small staff was further divided with many remaining in Galveston, and those in College Station handling multiple responsibilities. This resulted in a fairly flat organizational chart which meant

operational meetings being fairly small in number but extremely inclusive in terms of areas of responsibility. This streamlined organization allowed for the rapid dissemination of information and directives as well as more rapid collection and response to valuable feedback.

11. Immediately following the decision to relocate, days were filled with long lists of things to accomplish and very little time in which to accomplish them. The daily meetings were often difficult interruptions from the hectic work day but proved to be critical to ensuring a consistent approach and deployment. Often just one hour a day, the ability to get everyone in the same room, collect information from a broad perspective and make decisions as a group ensured that at least once a day everyone was on the same page. This consistent message and response went a long way to calming students, staff, and faculty who were often recovering from a traumatic situation.

12. Eliminating the standard of approval for the distance education requirements for the coursework eased the initial process of faculty being able to teach their courses but eventually undercut one of the main guiding principles of preserving the academic quality of the courses.

Research Question 3 -Learning

Research Question Three inquires as to what learning occurred as a result of refining the approach through cycles of evaluation and improvement? Learning as defined by the Baldrige organization refers to the refining of the approach through cycles of evaluation and improvement, encouraging breakthrough change to your approach

through innovation, and sharing refinements and innovations with other relevant work units and processes in your organization (National Institute of Standards and Technology, 2011). Crises are important opportunities for learning (Kovoor-Misra & Nathan, 2000). Unfortunately the timing of crisis and required crisis response does not always allow for learning mid-crisis, with most learning occurring post crisis during the debriefing process. Even then, post-crises learning is time sensitive with the opportunity for learning transitioning through three processes: first defensiveness then openness to learning, and finally followed by forgetfulness (Kovoor-Misra & Nathan, 2000). As such, organizations must be deliberate with regards to their learning and intentional with codifying and implementing their learning into future crisis response.

The data shows that learning occurred throughout TAMUG's crisis response process with a steady process of evaluation and improvement for future crisis response. Numerous interviewees discussed the four step process of prevention, response, recovery, and learning throughout the crisis response process leading up to Hurricane Ike. It was common practice after each evacuation for a brief after action meeting to be held to discuss any issues or damage, discuss viable alternatives to mitigate the damage and then adjust the plan appropriately (Interviewee #9, personal communication, 8-18-11). The modifications were typically fairly minor over the past twenty years as they focused only on the evacuation and campus preparation as no major strike on the campus or Galveston had occurred in some time. Although TAMUG's response to threat of crisis and after action reviews demonstrated learning, TAMUG also incorporated other learning processes through identification of best practices and observation of other

universities' experiences. The most apparent learning in this prevention phase of their crisis management planning took place after Hurricane Katrina devastated New Orleans, causing massive damage to a number of the colleges and universities located there. The potential for a major crisis as a result of a hurricane was further emphasized with Hurricane Rita striking nearby Lamar University in Beaumont, Texas just a short time later. Although TAMUG was certainly already very cognizant of their vulnerability to a hurricane strike, these two major disasters further emphasized the effect that such a disaster could have on the area surrounding the university and what a significant impact that could play in the response following the storm. These storms also demonstrated the long-term effects of such a strike could have on the enrollment and survival of a university.

Through these universities' experiences, valuable lessons were learned by TAMUG's Crisis Management Team. These three storms clearly demonstrated that even if TAMUG was successful in weathering the storm, damage to the surrounding area could seriously impact the university moving forward (Interviewee #11, personal communication, 9-9-11). Administrators at universities impacted by Katrina and Rita were contacted to glean valuable information about the impact of the storms and the respective crisis response to provide valuable information for the development of TAMUG's crisis management plan. In reviewing the continuing impact to enrollment after the storm has long past, this data reinforced the notion that simply closing down for a semester as did many of the Katrina-affected universities was not an option for TAMUG. The attrition of students after a cancelled semester was significant in every

situation, and it was concluded TAMUG simply did not have the enrollment to sustain such a plan.

Lamar University was growing at 10% a year when Rita hit. The next three years they were flat. So, the IT guys there, and I talked to him a lot about it, and listened to his presentations on Rita, and asked a lot of pointed questions, and fortunately - more fortunately than I hoped at the time - learned a lot. So, they figured in the three year period after Rita, it cost them 30% of their student body.

Tulane, like Xavier...in New Orleans. Xavier is still not back. Tulane -- University of New Orleans. UNO, where is its enrollment right now? 50% I think. Right, UNO? In contrast, we had a record number in spring and the next fall I think and actually every semester since then. So, we not only didn't lose the growth like -- I mean, one we didn't lose half our students like in New Orleans even though the island was 20% of this population. Not the whole area but the island. They once lost 60%. Lamar lost over three years 30% in the loss growth. That's where they looked at it as they lost their growth and it took them-- it was three years where they started back up again in a growth pattern. We had record growth for the next... for the record, not necessarily record growth but record enrollment and pretty much high end to our record growth for the next few semesters. So, those are big measures. They're very aggregated but those are very big measures of our success that -- because we could have not had that happen. That's why I mentioned Lamar and New Orleans even though like -- Tulane even, Xavier -- it's not automatic (Interviewee #5, personal communication, 7-29-11).

While learning of strategies that would not work, the TAMUG Crisis Management Team discovered many strategies that offered great potential. For one, the evacuation and continued operation of several of Tulane University's athletic teams to TAMU- College Station offered precedent for the relocation and continued identity within TAMU- College Station's operations. In fact, the floor plan and orientation model that was implemented for the TAMUG students was based on the plan originally developed for the Katrina refugees. Although the number of students coming from TAMUG turned out to be much greater, the early identification of important departments to include in the orientation and traffic flow saved quite a bit of time in planning and

reconstituting the process so rapidly after Hurricane Ike. Other information was learned from these universities as well. The caveat to the cost neutral guiding principle that allowed students the option to transfer all of their tuition and defer enrollment to the Spring semester was a strategy employed by one of the Louisiana schools to great effect and incorporated into TAMUG's response (Interviewee #7, personal communication, 7-18-11). Even some of the details of the Hurricane Rita's impact on Lamar University were assimilated into a table top exercise for training purposes. The scenario that was developed from this information proved to be an effective learning opportunity that turned out to be surprisingly prophetic when Hurricane Ike struck TAMUG the following year (Interviewee #6, personal communication, 8-2-11).

Although a great deal of learning and implementation occurred during the preparation phase, the greatest amount of learning occurred during the actual crisis. Although extensive planning had occurred based off of TAMUG's experiences as well as experiences of other universities facing similar situations, the actual relocation of all of the students was a new experience that had never been attempted before. This rapid response environment required in the crisis response coupled with the business continuity plan that had never been attempted before resulted in a lot of learning on the run. Even in the initial information dissemination, learning occurred as they determined solutions to the challenges as they presented themselves. As one of the team members recalls:

But the process of developing the FAQs, which was really more of a back and forth than it sounds like, was certainly part of the on-going learning process. A lot of informal communications occurred like you talked about, talking until 10:00 o'clock at night every night with students. And we continued to check in

and update each other, because even though we moved out to our purest areas physically, we still continued to function as TAMUG in College Station as a campus. And so we continued to meet and share these things we're all learning daily with each other and that was critical. I mean, we neither moved up there in our own little corner of the campus because it wasn't feasible, there wasn't a big enough corner to put us in all at one place. And it wouldn't have worked very well either honestly.

Nor did we just go become part of the College Station CIS department College Station student services and our students go to College Station classes. We did something in between, which was the essence of the answer to that question, you know, by maintaining our identity and maintaining our communication streams that we already have. Feedback to faculty, feedback to student services staff, student leaders attending SALT kind of things. All of those things continued through our normal feedback process even though we're in a very abnormal situation. That constant feedback was critical to our learning how we would operate in this new environment (Interviewee #5, personal communication, 7-29-11).

Although new strategies were learned every day, many of the interviewees spoke to the difficulty in trying to apply these strategies across the organization due to the rapid response necessary. Instead, the process seemed to address the many challenges using the business continuity plan and guiding principles as much as possible, learn from those that worked or didn't work, and then move onto the next challenge. As one of the interviewees stated about organizational learning:

I think we did over time but it goes back to only just those big parameters, because in the trenches in the crisis you don't have time and we didn't have enough depth in staff or anything else to be analyzing performance other than is it getting done until more of the reflective part, where you stopped and you looked back at it, I think. It's a lot about speed. The crisis element puts so much speed on there (Interviewee #1, personal communication, 7-18-11).

As things slowed down as the semester progressed, more opportunity for looking once again at other institutions and best practice became more practical. For instance, the reimbursement process, which began long after the students were relocated to College

Station and classes had resumed, allowed the administration to look to Lamar University and explore their response to Hurricane Rita. Several strategies Lamar University had employed successfully in their reimbursement process were implemented at TAMUG. The hiring of a FEMA consultant to assist in maximizing the reimbursement revenue was one strategy that proved particularly successful to TAMUG's recovery.

We fired our first consultant. Yes, the second consultant we got was actually a FEMA guy, and he was very good. And he worked with me personally. We finally understood the categories. You have to understand the categories of damage. You have to understand how they're going to pay you because some of 75% pay out, they don't even pay you 100%. Some is 100%, some is 80%, and some is 90%. So, we had to argue a bunch of those things. We finally argued it all but the reality is we were very close, so weird, of our original estimates. I picked an 80% pay outright, ends up... So, anyway, basically this is just the differential auxiliaries. Dr. Loftin said to me, "What's the impact on the book store?" I said, "It's something like \$1.5 million," because we still have to pay the people, we're not getting revenue in for food, we're not getting revenue in for the book store. Residence hall was a little less of an impact because they collected some but they still had a lot of stuff that they haven't had an outlay for. So, he said, "Find me a precedent," and I went, "What?" He said, "Find me a precedent where the state gave us money for an auxiliary." That's unheard of. I mean, come on, think about it. You can't even spend auxiliary money on E&G because they don't support auxiliaries. Well, I'll be damned, he heard somewhere that somebody got some money during Rita. So, I by hook and crook just called anybody I knew, and finally I called the auditors, the state auditors that were working on the preliminary estimates, and I said, "Do you know about anything about Rita in East Texas, maybe the auxiliaries...?" They go, 'Yeah. Lamar University.' So, Lamar University got it. So, we already went to Craig Eiland and he put it in the bill. We got lost revenue for it. Now what the auditors said was, it really wasn't lost revenue, it was expenses incurred that were spent which you didn't have revenue cover, the same thing. So, but we got it (Interviewee #6, personal communication, 8-2-11).

Just as the slowing of the crisis allowed for learning from others outside the organization, it also allowed the staff and administration to start reflecting upon their own experiences and determine what had been successful over the semester in case relocation was required in the future. Many of the failed processes were identified and

understood while underway like the necessity of keeping daily histories of what was published on the webpage (Interviewee #4, personal communication, 7-27-11). Other decisions had to be left to run their course with an understanding that changes would be made for future relocations. The process for approval of distance courses, one of the biggest areas of complaint, was one such example. The following quote, although previously cited, best exemplifies one of the key learnings that took place as part of the learning process.

We have a policy that says, if a class is going to be a distance course, over 51% of its contents presented online versus face to face, it has to have department head and VP for academics approval. We waived that. We wouldn't waive that next time, not if I have a jolt and Seitz has appointed me as the distance coordinator for, as our official distance coordinator right now. And I've talked about it and that would be the thing I wouldn't change, the math. We start so far in the hole with those particular faculty; their face-to-face classes are marginal. In fact, in some cases they are below marginal. Look at the failure rates.

So do we screw them a little bit or we screw them a lot? I mean, in the other courses where the faculty were more, performing already at a more acceptable level, we had little much less issues. The place we had the issues were with faculty who were the weakest to start with which is predictable, but were probably not performing very well in the first place. And during the situation, when I was here talking to a couple of those faculty and trying to advise them on how to improve what they were doing, they didn't listen...

So yeah, there was a failure there. The prevention would have, we might have mitigated it happening by have it, made it be approved. The odds are Gil would have approved anyway. But we waived our thing. We shouldn't in the future way but we should be very -- we should learn from this experience and be very careful. Now, the other thing we're doing in prevention is I'm doing everything I can to get all our faculties teaching hybrid courses; because a hybrid course is fairly trivial to turn into a distance course. A face-to-face course is very hard to learn into a distance course. And more importantly, all the studies show no significant difference between distance and face-to-face (Interviewee #5, personal communication, 7-29-11).

The reality was that as the pace of the crisis slowed down, the TAMUG Crisis Management Team finally had more time to seriously contemplate what the successes and failures of the previous months had been. Using the Deming cycle of Plan-Do-Check-Act, the team was able to review the processes dating all the way back to the planning stages to consider the effectiveness of those plans once actually deployed. Often the most learning occurred when there was a gap from the approach to deployment of the plan. The following details the learning that occurred from the gaps in approach to deployment in the areas defined by the Quality Texas Foundation- Engagement Level Criteria.

Leadership

There were several things learned about the leadership as the crisis management team deployed the crisis management plan after Hurricane Ike had struck TAMUG. For one, the team that had been carefully selected to develop and hone the plan over the years was not the same team to effectively manage the business continuity aspect of the plan. Not only did the distance between the two campuses geographically divide many of the staff members from each other, but the issues that each of the teams on the two campuses were just as distant in nature. In many ways, the divided team was dealing with two very distinct crises. In Galveston, the focus was on repairing the campus, supporting employees and community neighbors, and seeking additional support and housing for the students upon their return. At the same time in College Station, the focus was much more on the students, identifying and equipping classrooms and living arrangements for the 1700 students and later the myriad of other issues like lost books

and uniforms, donation drives and preserving the Galveston identity and culture among the students. This difference in location and focus resulted in the formation of two separate teams, an informal facilities response team under Dr. Brad McGonagle in Galveston and the more formalized Strategic Operations Team under Dr. Rodney McClendon in College Station. Although these teams were not identified in the crisis management plan, they played a critical role in the crisis response, operating almost as two subsets of the crisis management team addressing issues at each one of their respective campuses with little intersection. Unfortunately, the independence of these teams as each dealt with their own crises became at times problematic as the team in Galveston often felt forgotten and left behind when it came to the amount of donations and very publicized outreach to the relocated students in College Station. (Interviewee #3, personal communication, 7-20-11). This growing divide was eventually realized through employees moving between the two campuses, and efforts were made by Dr. Loftin and others to better inform each campus what was occurring with their counterpart in an effort to bring the campuses together in spirit.

In addition, the organizational vision that had been established by the crisis management plan, and especially through the white papers developed by the team of College Station and Galveston counterparts, established a broad vision to achieve the business continuity of TAMUG. Following best practice of not being too specific in their crisis management plan so as to provide managers the flexibility to adapt to the unique characteristics of a particular crisis, the plan proved to be in many ways too broad in not providing enough guidance. The guiding principles provided a structure for

making decisions rather than what each decision should be and filled in many of the gaps left by the plan. As a result, the development of the guiding principles proved to be a key learning in the crisis management response.

In leadership's effort to create an environment that fostered and required legal and ethical behavior, the issue was not specifically addressed in the approach as the leadership team really counted on the highly ethical culture and identity of TAMUG to continue through the crisis, and the philosophy worked. As Chaffee and Tierney state:

Several important organizational benefits arise when culture, strategy and leadership overlap. When identity is clear and coherent, all who are involved with the organization have a star to navigate by in their efforts to contribute to the group. They see what the organization is and, with consistent strategic leadership, they see where the organization is headed. People generally will choose to leave an organization that they do not find comfortable and to contribute actively to those they believe in. The organization with clear identity and direction attracts those with similar aims and encourages them to find ways to help (Chaffee & Tierney, 1988).

TAMUG had enjoyed long term consistent leadership that emphasized ethical behavior and as a result had incorporated ethical behavior as part of its identity (Interviewee #3, personal communication, 7-20-11). The crisis did not change that expectation in any way. The guiding principles further encouraged ethical behavior. Instead with much of the culture reinforcing ethical and legal behavior, the leadership focused on communicating the ethical behavior in a transparent manner.

Well, I would say that the most important single thing comes down to communication. We tried to be very transparent. I think we can talk about creating ethical environments but when it comes down to it, what does that really mean? You can talk theoretically about it. We just did it by being transparent. So the idea was being very open and above board. Everybody, here are the problems, and here are the solutions we have, and we want you all to work with us.

It was effective, and so I am not aware of any cases. There might have been a few cases where we had some issues of unethical behavior here but I don't recall any of them. We certainly had a lot of people who sacrificed a great deal to be here with the students and had to pull up stakes and oftentimes had little with them. They left almost with nothing but the clothes on our backs and in some cases almost everything they had. There was a tremendous outpouring of support in the campus obviously from Aggie Moms and groups like that but in terms of the environment I would say the most important single thing is that we were transparent. We had many, many meetings and lots of communication via our website in particular so no one was in the dark about what we were doing and why we were doing it. And that created a feeling of trust among everyone who is a part of the team, not just the administration but also the other faculty and staff were involved as well as the students themselves. They thought they were truly a part of a family and we were embraced so well by the Aggie Family here that that was reinforced in a way too. (Interviewee #11, personal communication, 9-9-11).

The TAMUG leadership's commitment to ethical and legal behavior was matched by a commitment to learning and organizational improvement. Although its review of previous crisis situations had been helpful in the Hurricane Ike close down and evacuation stages, the crisis management team could not review things that had never been attempted before like a campus relocation. Table top exercises and simulations proved to be effective in many ways in the planning, but TAMUG learned that they would have to employ a leadership structure that not only had the ability to get all necessary data to review performance, but also the power to make broad strategic decisions quickly. This structure enabled the university to be responsive and decisive in meeting the constantly evolving challenges of the crisis.

Another critical learning point discovered about the leadership in the gap between the approach and deployment of the plan was the crisis management team's major emphasis on the students, to the detriment of the staff. Although the continuation of the students' academic endeavors was critical to the university, the staff also played a

key role in the continued success of the university. There had been some minor discussion concerning the housing of critical staff who would travel with the relocated students, but no consideration was given to those staff who would remain behind in Galveston. These staff members were critical to the rebuilding of the campus yet many were left homeless by the same storm that had forced the students off the island. In addition, if the plan was deployed successfully and the relocated students brought back to Galveston as soon as possible, these staff would be critical to the university's operation. Obviously more attention needed to be focused on the employee situation as one of TAMUG's key impacts upon society.

The TAMUG Crisis Management Team also learned that the manner in which the surrounding community was affected would have a drastic impact on the campuses recovery. Historically most of the storm damage that had been inflicted upon TAMUG had been from high winds. Although the surrounding community had also been impacted by those same winds, the surrounding community had never been devastated as it had with the significant flooding that had accompanied Hurricane Ike. In such a situation, TAMUG could not seek assistance from the community but instead was in a position to offer assistance to many in the community. Dr. Loftin's strong connections to the community proved to be invaluable during this time in reaching out to offer support, but there really was no premeditated plan to offering the assistance.

We were aware of the problems that both GISD had as well as UTMB in other groups. For example, the Sunshine Group, we gave them space on campus for a while. They had total destruction in the place there so we reached out to various groups and said, "Look, we were hurt but not as badly as you. How can we help?" We took them in and so we let them kind of define how they wanted to do it. We weren't -- we weren't strict about exactly what model to follow there

and so we had -- we had a number of UTMB students come over, not a lot there. A few of them lived on campus but most -- we had some classes there for a while.

We had the Sunshine group there for long which is a group of people with disabilities who have real challenges and mobility challenges and other things and they were handled very well for several weeks until they had usable quarters to go back into. GISD, we had less direct on campus effects for them but I was personally involved, the meetings involved working with GISD in their own recovery, helping them understand that. I also was on the board of a chartered school which got devastated in the process there, the Odyssey Academy. So I was very directly involved with Odyssey Academy's recovery too and relocation. They went to the Methodist Church there. It was an interesting process to go through all that. So I saw this in many dimensions. I saw it with our own campus but we were able to, given our, if you will, prior thinking of people before me about design and that sort of thing too and just in a way of luck as well in terms of how we were relocating compared to other places on the island there. We came through very well.

A little side note here of course was the -- was the whole issue of the research community and how they could help too and not only with the research that they were currently doing. We tried to continue that research but they also try to reach out and help research the recovery. For example, Dr. Sam Brody was very involved in trying to get back into the recovery research area again and he was known among the faculty in Galveston but he was working here in College Station. But he was down there right away. We had grad assistants come from our -- one of our programs, master's programs at Galveston working this problem and so we had a lot of people from the faculty and the student side of equation going into the community studying what was going on and to prepare research studies that would be able to guide recovery and guide future preparations in a way that might make this less likely to happen down the road.

So there were all kinds of ways things were going on there and I can't say it was like a grand design. It happened spontaneously many times because of individuals but people who recognized right away that TAMUG was there as a resource and they reached out to us once they understood they could and when we could help them, we did (Interviewee #11, personal communication, 9-9-11).

Strategic Planning

When considering the learning that took place as part of the strategic planning for the crisis, the most significant realization was how critical the strategic outlook of the

plan was. For years, the approach was simply to weather the storm and then deal with its consequences. After Hurricane Alicia devastated the campus, it took years to recover the lost enrollment. With the experiences of dozens of institutions who suffered greatly from Hurricanes Katrina and Rita reinforcing that point, President Loftin adapted a much more strategic perspective in requesting the development of the Business Continuity component of the crisis management plan that provided for the relocation of the students to College Station. The end result of this strategic view of the problem is a campus that was shut down for most of a semester without the loss of any significant enrollment or employment.

As critical as the crisis management plan was for establishing the primary goals, the white papers were also found to be incredibly useful for outlining many of the shorter term goals and objectives which fell more into functional areas than the broad strategic goals of the plan. The framework these documents established as well as the relationships built between counterparts at the two campuses while developing the framework was critical to moving the crisis response forward. Even the large team of College Station and Galveston counterparts that had been so important in adapting the plan, eventually became too large of an organization to efficiently identify the lesser priorities for each of the functional groups, so the next stage of response was greatly deferred to these functional groups. These functional groups played a decisive role in outlining the next stage of objectives for accomplishing the larger goals of the crisis management plan. Eventually a comprehensive group from all aspects of Galveston, the

interim Strategic Operations Team stepped back in and took on the role of coordinating the plan for the Galveston students.

As the Interim SOT worked toward the goal of the crisis management plan in keeping students on track academically, they very quickly learned that the major objective was to make things as normal for the college students as possible. Even though the students were studying on a campus 150 miles away from their own, many of the day to day operations of being a student was the same – going to class, studying, socializing and so forth. So, even though this objective was not written out in the approach, the team learned through the deployment of the plan to look for those things that could disrupt the typical college student schedule. These items became the strategic objectives of the committee. Funding for books, housing issues, classroom problems, social activities were all issues that were identified and addressed by the Interim SOT. Regular discussions and email with students, group meetings and student forums all provided valuable information concerning problems for the students.

In hindsight, the strategic planning process all the way down to the level of developing action plans was prohibitive. The Business Continuity component of the plan had never been attempted so there was no base line data to use to make assumptions at the level required for action plans. Now with the relocation complete, much was learned at a strategic level which could afford more detail in the plan, but the reality is that at the action plan level, most crisis response is fluid and reactive so it is difficult to plan in advance at any level of detail. As one team member explains:

I mean we had a good overarching strategic plan. I thought we really did and we kind of just kind of rode the wave of that plan. We had to make decisions on the

fly because even the ones that we planned out, well... some just didn't work. Now, we know better because we did it. But you still can't just go out there and say, "Okay, what are all the rooms you have open?" But you can't go up there and say, "Hey, we need an office space," and expect everything to be the same as it was back then. All those things will be a bit different next time and you can't plan for all of that. But I do think that we have a better plan now (Interviewee #7, personal communication, 8-9-11).

Customer Focus

In the process of communicating to the student population, TAMUG was consistent in declaring their webpage as the primary source of information during a crisis. This approach was communicated during new student conferences, floor meetings, and before any evacuation, and was effective in directing students to the right source of information. As the crisis evolved from yet another evacuation and return into a full relocation exercise, feedback from students and the ability for students to ask questions became extremely important. Although not addressed in the approach, the need for a phone bank to answer questions, constantly update FAQ lists to keep students and their families informed, web-based forms to collect data from students, and a more detailed on campus orientation program was just the start of an extensive communication process geared toward identifying and responding to the ongoing needs of the students.. As the semester continued, these and other sources of communication became a priority to assessing the student experience and critical to the deployment of the crisis response. As one team member described it:

We brought in some of the student leaders early, alright, if I remember correctly, the student government leaders came in and you talked to them; Loftin talked to them, Donna talked to them. Certainly, after the students group showed up, we had the Kyle Field event, we had a number of minor events. You guys make yourselves very visible. We all listened to what we were told – I mean when students told us they had third grade desks in one of the Sunday school rooms.

We got them to move them out of the room. Yeah, we made some missteps but we listened and changed it just as quick as we could. I went out to the store with my personal credit card and bought stuff and brought them in the classroom when we were short. We tried to be responsive to their needs and listened to them and engage them in discussions where it was appropriate and where we could engage them (Interviewee #5, personal communication, 7-29-11).

Another gap between the planning phase and the deployment phase that was realized was the focus on the immediate relocation without any focus on the retention of students once in College Station. College Station had already been an attractive destination for those students who changed their major from the ocean-oriented majors of TAMUG. TAMUG realized shortly after the relocation that the preservation of the TAMUG culture and retention of students needed to be considered in all aspects of the relocation process. The small close knit feel of the campus as well as the unifying effect of going through the relocation certainly contributed to some extent, but multiple initiatives were developed during the deployment phase to further strengthen the socialization of the students, particularly the first year students, through housing, social activities, community areas, and communication. With communication, TAMUG rapidly transitioned from using only their website as a means to convey information to a broad system of web based forms, recorded forums with President Loftin, phone banks, and other methods that allowed for two way discourse so that staff could better connect, identify and resolve the student body's most pressing needs. Maintaining the Sea Aggie culture with the students became a significant goal in the deployment of the plan, but was not even referenced in the original plan.

The TAMUG Crisis Management Team also learned significant information concerning the limits and even negative aspects of technology when it came to

supporting the key programs of the university. The approach had not provided much depth beyond how the initial relocation would take place which resulted in the team developing new processes and conduits to gauge student progress and satisfaction. In addition, the use of technology in the classroom to better facilitate Galveston faculty staying connected to their students actually contributed to the problem, rather than solving it. Faculty who were not properly trained or prepared to teach distance courses were allowed to teach distance courses, many of whose subjects were not particularly suited for distance teaching. The result was students struggling even more in already difficult circumstances.

The TAMUG Crisis Management Team also realized that the addition of the business continuity plan to the emergency response plan added a much different complexity to the assessment requirements. In the past, the event would occur and all of the major players would come together in the following days to reflect on how the campus could better prepare to the next event. With the business continuity plan activated, the campus did not immediately return back to some aspect of normalcy for quite some time. Instead there were continuous challenges as the event response stretched on for months and the ability to assess student satisfaction, engagement, and dissatisfaction as an ongoing process was critical. Unfortunately the team had little time to stop and develop assessment procedures. Instead, informal measures were deployed in the absence of a true assessment plan, and at the conclusion of the relocation, more formalized surveying and assessment processes were conducted as well.

Measurements, Analysis, and Knowledge Management

The TAMUG Crisis Management team learned a great deal when it came to the use of data and knowledge management during the crisis response. With the Business Continuity portion of the crisis response never having been attempted before, the team really had a difficult time trying to determine what measurements would be crucial to the relocation in developing the initial plan. As such, little attention was given to this aspect to the plan prior to the storm. Once the storm had struck and the determination to relocate made, the team in many ways had to operate in a reactive mode in identifying all of the challenges with relocating such a high percentage of their students to College Station. Data to drive decisions had to be captured rapidly especially in those early weeks, and the team met on a daily basis at least to analyze the wide array data that would be brought into the meetings. Many of the older, more standard types of reports were still attainable to provide some information of the university's deviation from normal operations, but most data provided a strong base line for future relocations, something the team was forced too often to operate without during the initial relocation.

Although at the time of the plan the team did not know what data would be needed, the plan for accessing available data to support organizational decision making was fairly effective. The alignment of many of the database systems in Galveston and College Station proved to be extremely important as precious time could be spent actually analyzing data rather than determining how to secure the data. Some of the databases like the TAMUG housing lists were not accessible or as aligned as they might be, but the majority of the information held in the databases was readily accessible to the

team. Still, a lot of other data was purely anecdotal. The TAMUG crisis response team used the contacts among the student body, social media, and the numerous phone calls to identify new issues that could be responded to as quickly as possible. This type of information proved critical to identifying and resolving issues that directly impacted the students before they became too widespread.

You know measurement is kind of a fuzzy thing in that situation. Some stuff we were able to measure. You know when you talk about the registrations and how many students you have in these living quarters and whatever. I think most of the satisfaction stuff that we weren't--again it was more anecdotal, it wasn't really quantitative. You know we've had 47 calls about this so we need to get this addressed; we just didn't always have the manpower to manage that (Interviewee #4, personal communication, 7-27-11).

Information is critical in any crisis situation, yet the approach taken by the TAMUG Crisis Management Team toward knowledge management was minimal. The plan hardly addressed the measurement and analysis in any significant manner with the exception of the relocation of several servers and the alignment of many of the universities' data management processes. These initiatives proved to be extremely important as it gave the crisis team members the ability to secure valuable data during the crisis. In fact, a great amount of time throughout the first few weeks of the crisis was spent analyzing the data in daily meetings. Furthermore in the actual response to the crisis, a great deal of effort was expended in making sure valuable information was distributed throughout the workforce and other stakeholders as well collecting organizational knowledge from those who had gone through the storm. Although not in the original plan, the TAMUG Crisis Management Team realized the value of this information in further developing the plan for future crisis.

Workforce Focus

The implementation of the Business Continuity component of the Crisis Management Response plan created a number of opportunities for learning for the TAMUG Crisis Management Team. A sharp deviation from the old plan that specified a well-orchestrated evacuation followed by a return and repair of the campus, the Business Continuity Plan proposed the relocation of students to College Station for an extended amount of time. Although the framework that had been developed prior to Hurricane Ike provided some level of detail as to how various processes would occur to ensure the students' semester continued, very little detail as to what to do with the vast majority of TAMUG's workforce was included in the plan. The TAMUG crisis management Team very quickly realized the critical role that the workforce would need to play if the Business Continuity Plan was to succeed, so numerous decisions were made during the deployment to best utilize the TAMUG workforce, and a great deal was learned in the process.

One of the most important things that was learned through this process was the need for a detailed plan identifying those who would actually commute versus those who would relocate to College Station versus those remaining in Galveston. The TAMUG Crisis Management Team had to spend time they really couldn't afford to spend during the early stages of the crisis determining this information. Developing this policy took time away from other critical needs. So many factors— how many properties to rent, how to contract those properties, how to reimburse for overnight stays for commuters and numerous others- depended on that decision which then had to be vetted against

university rules, system policies and state law slowing the process even further. Developing policies as to which roles specific employees would play in the case of an implementation of the Business Continuity Plan would go a long way to eliminating the early confusion. These decisions could even be incorporated into job descriptions prior to an employee's hire so that expectations during a relocation would be established and well known.

Another thing not specified in the plan that proved to be important was the preservation of the TAMUG culture and the critical role of the faculty and staff in preserving that culture, not only among the students but the employees of TAMUG as well. The closeness and family feeling of TAMUG had served the campus well over the years and even though the faculty, staff, and students prided themselves in fully embracing the "Aggie culture" of Texas A&M University, it was critically important to preserve the "Sea Aggie" identity of TAMUG within that culture. The familiarity of faculty in the classroom and staff at various events reinforced that identity and the connectedness to TAMUG, so the faculty and staff quickly learned to seek out opportunities to interact with students. As described by one team member:

I also engaged cadets whenever I possibly could, I mean the business of just walking around through the residence hall area where they were living and -- they were anxious to greet you and holler out to you if you were on campus so that gave you lots of opportunity to connect with people. I attended the formations of the corps activities period and I used most of those corps activity periods not only to issue instructions and things to them but also, to take their questions and answer their questions. I met with individual cadets and their parents and then I did everything I could to integrate the cadet administration into the activities of things up here you know, where it was appropriate (Interviewee #9, personal communication, 8-18-11).

Another valuable lesson learned through the relocation was the incredible value and opportunities for cross training and additional partnering with College Station colleagues. On the small campus of TAMUG, there was already an opportunity for employees to enjoy a broad area of responsibility versus the more specialized nature of employment on a larger campus. The relocation required supervisors to further evaluate the personal situations of employees to determine who could move to College Station and then ensure they had the appropriate knowledge and training to do the job required of them in their new environment (Interviewee #5, personal communication, 7-29-11). Once in College Station, the specialized knowledge of the employees provided even more insight into new training and processes that could be adapted and brought back to Galveston. Once the initial surge of the crisis slowed a bit, supervisors learned to actively seek out these types of opportunities to further develop and cross train their employees (Interviewee #7, personal communication, 8-9-11).

Another key learning centered upon the health, safety and security of the relocation process. The health, safety, and security were the primary focus of the evacuation, but it continued to play a major role even during the relocation to College Station. TAMU-College Station and the local community college, Blinn College, were experiencing record enrollments, so when TAMUG began working to identify suitable locations for the Faculty, staff, and students to live, many of the identified properties were in less than desirable locales. The plan had really only focused on the initial evacuation, but the supervisors rapidly learned that if the faculty, staff, student or their families were not safe and secure, their work would suffer and the relocation was for

naught. As such, continued focus was placed on the safety of the employees and students throughout the relocation, and needed to be further incorporated into the plan.

As one team member described:

This is so corny but I have to go back and say, Maslow's hierarchy fits so well. I mean, you know, what's the most important thing to do first? Food, shelter and the basics. The first thing you guys were doing was hustling places for people to live and accounting for everyone and things like that. You know, it amazed me how glad we were to see the Red Cross coming around with meals when we were still trying to clean our home up and stuff like that, but you know, safety and security, the individual's family, then the whole business affiliation when you reach that step. You think about how important the campus was to each other and so I think you know that's a motivation question, if there was one, and Maslow's still a good motivation theory. So, temporary housing being provided in College Station and also in Galveston, I mean you guys put up (former President) Sammy and Charlotte up in the residence halls. You found the place for me to live over in the private apartments. Things that we did like keeping all of the food service people on payroll and I mean, not every university would've done that. I think those steps were critical to take care of before focusing on the work at hand (Interviewee #9, personal communication, 8-18-11).

The same was true of the emotional toll of employees being separated from their families. The TAMU-Crisis Management team was well aware of the emotional stress caused by being away from their homes and families so they quickly learned to make allowances to mitigate these issues.

There's a lot to say about the informal, everybody going out to eat all the time. We were already very close but became even closer. And when people started getting, 'Oh my God, I haven't seen my daughter in two weeks.' I knew about it before morning fell from one or the other in the groups. And immediately when I went to work, I was like, 'Okay, you're going home this weekend. You go home this weekend, come back Tuesday.' So, it was easier to keep the pulse because we lived with them (Interviewee #7, personal communication, 8-9-11).

Yet another need that was learned was the importance of having a formalized assessment process to ascertain the continued engagement and satisfaction of the workforce. So much emphasis was placed on the student relocation, that the plan had no

formalized process to access or even communicate with the employees. This was problematic, but was made even worse by the divided nature of those employees still in Galveston versus those who had relocated with the students to College Station. With the wealth of donation drives and activities for the students in College station, the employees in Galveston, many facing difficult personal situations with destroyed homes and dependent family members, often felt forgotten, and morale at times plummeted (Interviewee #3, personal communication, 7-20-11). The plan did not identify these needs, but the assessments were important in identifying where counseling and additional support was needed. Valuable insight was gleaned from many of the assessments that could prove valuable in future relocations (Interviewee #11, personal communication, 9-9-11).

Process Management

The TAMUG Crisis Management Team learned several valuable lessons through their system of process management. The team's approach centered on developing a series of white papers that provided general guidelines and priorities in the actual relocation of the students and classrooms. The idea behind this plan was that if the major issues surrounding the actual relocation – locating classrooms and building a course schedule, housing for the faculty, staff, and students, and transition of the local databases for meal plans and parking into the College Station systems - could be resolved quickly, then the TAMUG faculty and students could get back to the business of education using the well-established work processes already in place in College Station. Their strategy of relocating to College Station was very purposeful as many of

the database systems and key work processes of the two campuses were already aligned reducing the need to create new processes and databases. As one team member described:

Housing and classes. Everything else, we can fall back to the norm because most everything else we could still supply the way we always supplied it. Neo email still worked. This is coming from my side but you can compare it with others. In my area, we had emails still working. We had the website still working. We had e2Campus still working. And that wasn't an accident. We worked real hard to be ready to do those things but those things still worked. MyRecord still worked. The learning management system still worked because they're all run by College Station and we partnered with them. Its part of the reason we partnered with them but in a serendipity, mostly. But those weren't a challenge. It would have been a challenge, but they weren't a challenge because we already had planned for them and could plan for them.

We could not plan for where people are going to live because we didn't know who's going to show up. We could not plan for where classes were going to be. Those two things were the biggies in my experience. Now maybe there are some student services things that were an issue- Food service is one. So room, board and classroom, for faculty, staff and students.

Now one of those, we weren't 100% efficient in rooms because we had empty rooms. But we were mostly effective I think. They had a pillow to sleep on. Nobody was homeless and nobody was, in spite of what they say, in substandard housing after the first couple of weeks. It's getting better. Food, I never get any feedback on that. I just assume they got fed and nobody starved legally. Classrooms were probably our biggest failure in that we left some really good classrooms on the table and held other classes in places that were really marginal. Mostly because of the lack of cooperation on the academic department side there. For instance rural health, we could have held down a quarter of our classes in those classrooms. I don't mean to dwell on that but those are the nicest classrooms I have ever seen, 200 grand in equipment per room for just a regular classroom.

I mean just three projectors for 45-person classroom. They got three projectors and going over there and finding these damn things empty all night long and then, going into the Sunday school rooms where we're teaching. That was probably the things we could have done better with better data, better cooperation, better system process, more time. Donna was right; with more time, she could have done a better job with that but, most of those things we didn't find them out until a week or two later, when it was too late even to move.

But that was probably those three -- the worst done, I think. We succeeded but we left a lot of -- it was a lot of opportunity cost or a lot of opportunity cost on the table to do it better (Interviewee #5, personal communication, 7-29-11).

During the crisis, this strategy of being able to use College Station's processes would prove invaluable in saving scarce time and resources allowing the team to focus on other important issues as they arose, like the organization of donations drives and allocation of donated funds. Furthermore use of the familiar work systems provided a sense of comfort to faculty, staff, and students at a time when it was drastically needed (Interviewee #5, personal communication, 7-29-11). The TAMUG Crisis Management Team quickly learned that this process had worked extremely well, especially for the first time the Business Continuity Plan was ever implemented.

The TAMUG Crisis Management Team learned the only area that the plan did not work extremely well was when they failed to focus on their core competencies. Several of the processes were adapted to ease travelling for commuters, both faculty and students, at the expense of a quality teaching environment. The approval process for distance teaching was lifted and the class time was changed to three hour, once a week schedules, and both reduced the teaching experience for many of the undergraduate students. Through this experience, the TAMUG Crisis Management Team realized that the quality of the teaching experience must be paramount in the decision making process (Interviewee #1, personal communication, 7-18-11).

Another lesson that was valuable to the TAMUG Crisis Management Team was the effectiveness of merging their system into the system of College Station. Although preserving the identity of the TAMUG students was important, the ability to fairly

seamlessly insert the near 2000 students into the well-established and -supported work process of College Station was a huge asset. The work processed had been tested by tens of thousands of students, and also provided a depth of support through additional staffing in human resources, student affairs, general counsel and other areas that TAMUG could not have mustered on its own. These staff members' experience and commitment to the relocation process multiplied the effectiveness of the TAMUG staff by a huge margin.

A final lesson learned through the process management process would be to be very intentional in developing performance measures as well as an assessment schedule to determine the performance. The team realized early on that in a crisis situation, there were so many issues occurring and needing resolution that it was difficult to be strategic in the approach to process management. Too often a rapid solution for a problem as determined and then the next problem identified without coming back to the original problem to measure its performance. This was further exacerbated by the fact that this evacuation was the first attempt at the Business Continuity plan so there was no previous base line relocation plan to measure against when determining what might be an appropriate performance measure. The TAMUG Crisis Management Team took careful assessment of the implementation of the Business Continuity Plan to incorporate the learning into the new plan with more formalized assessment procedures for many of the processes (Interviewee #5, personal communication, 7-29-11).

Business Results

Although much of the learning occurred through the experience of actually deploying the plan, a great deal of information was also acquired through reviewing the final results of the crisis management plan, often obtained through various audits, reports, surveys, and other assessment processes. In an effort to capture the perspectives of those involved in the crisis response, several debriefings and after action meetings were held at the end of the Fall semester and into the Spring. The largest of these was a comprehensive after action meeting facilitated by Dr. Richard Cummins on December 10, 2008 and transcribed by an outside agency, A AA Werlinger and Associates, for distribution to the crisis management teams and others. It is included as Appendix C. Nearly every major decision maker involved in the crisis from TAMUG and TAMU- College Station was present to provide valuable insight to be recorded and implemented into future response. Separate on line surveys were also developed and distributed to all faculty and students to assess their experiences with the crisis response. Follow up forums were held in the Spring semester to seek further meanings from the survey results. Through these processes, an incredible amount of valuable learning was documented and made available for review for the TAMUG Crisis Management Team to use in future crisis management planning (Interviewee #2, personal communication, 7-22-11).

Once the data was consolidated, assessed and reflected upon, a series of actions took place. One of the earliest actions was the reconvening of the Strategic Operations Team to review the numerous lessons learned and incorporate them into the new crisis

response plan. The first meeting was held May 12, 2009, and identified areas for future improvements. The major issues that came out of this review included the following concerns in four distinct areas, Academics, Evacuation, Relocation, and Crisis Plan.:

Academics

1. Concerns over the 3 hour class blocks for undergraduate students
2. Approval process for online courses
3. The time available for developing an appropriate course schedule after the decision to relocate has been made
4. TAMU room availability
5. Increasing the roles of academic department heads immediately after the crisis starts
6. Continuing and even strengthening the relationships with academic peers in TAMU- College Station
7. Technological needs in available classrooms
8. Consideration of process for Faculty/Adjuncts/TA's not reporting

Evacuation

1. Possible development of a code system to improve communication on campus as to hurricane preparation status
2. Update check out lists for students to include books, computers, and uniforms and faculty to take PC and teaching materials

Relocation

1. The early identification of off campus properties

- 2, Better communication of expectations to students
3. Website worked well in student communication
4. Review and keep current lease agreements for future use.
5. Enhance initial student survey to better collect data and communicate information
6. Better coordinate with TAMU residence life for housing of students
7. Provide for accommodation for first wave of staff to include housing and possibly child care

Crisis Plan

1. Reconsider process for implementation of Business Continuity Plan depending on timing during academic year.
2. Refine crisis plan with new information
3. Coordinate table top exercises to retain information and practice response.

Once the major issues were identified, responsible crisis team members were assigned to develop a list of potential issues and solutions to bring back to the table for further discussion until solutions were accepted and incorporated into the crisis response plan. This process occurred over a series of meetings and resulted in a memorandum on November 5, 2009 from the Acting Vice President and CEO of TAMUG, Dr. Rodney McClendon to the Interim President Of Texas A&M University, Dr. R. Bowen Loftin detailing the modifications to the current plan (Appendix D). One of the major changes resulting from the experience of Hurricane Ike was the change of the decision point of the implementation of the Business Continuity Plan from the campus being closed for

two to a matrix that considered a number of other factors, severity of storm and timing of strike being the most critical (Appendix E). Most of the other learning that occurred from the crisis occurred at the departmental level and the various departments were tasked with reviewing the information, improving their response, and adjusting their participation in the Business Continuity Plan.

Also as a result of the learning that took place, key findings were identified and several administrators and faculty members took the consolidated review and developed educational presentations to be presented across the country. Some of the key findings included the identification of those things that were done right, that needed further consideration, or that needed to be handled differently in future crisis management response. The things that were done correctly in the relocation process included the removal of the main website for its sole use as a hurricane communication tool; the use of one command post; the clarification and documentation of drop processes, withdrawals, financial aid, fulltime status, suspensions, course evaluations, etc.; the critical role of the physical plant and IT teams; the faculty orientation preceding the student orientation; and the town hall informational meetings. Things that needed further assessment were the three hour block classes, how to deal with pets, partners, children and spouses, and online courses particularly math. Finally the areas that were identified that definitely needed to be addressed were consistent policies for staff, transition to 2nd semester courses; EIS security issues; streamlining of check-in processes; clarification of academic chain of command to validate course functions; and better identification of lab resources through planned weekend use. These were the

major findings of the crisis response review team. They also developed a list of top ten professional and institutional lessons learned:

1. Taking time to set up your guiding principles and big priorities FIRST will pay off big time before you get into the details.
2. You need to have about 50% of your annual budget in cash reserves or a good line of credit to get it. FEMA, insurance and external resources will not be available in time.
3. People need (and truly want) leadership. Someone has to stand tall, provide direction, and take the risk to make decisions.
4. People find comfort in structure and clear policies during crisis/chaos.
5. Recovery will take much longer than you anticipate.
6. Plan for a post-crisis intermediate period. Things do not return to normal for a very long time (if ever).
7. People respond to crisis very differently. Pay attention to the needs of others.
8. Those that are complaining the loudest did not help generate any of the solutions.
9. Stay the course with your culture and your mission. How you respond to the crisis will define you for a very long time.
10. Nothing is more important than people (your staff, peers, customers, suppliers, neighbors, etc.)

Through the long process of review and discussion of personal issues, many of which affected professional performance, a companion list of top ten personal lessons learned was added as well:

1. Leave your elderly parents, in-laws, or any others that may live with you with other relatives. You will have enough to deal with on your own.
2. Your personal recovery is going to take at least three to four times longer than you think it is going to take.
3. Cash flow is a major issue. If you do not own your home out right, your insurance check is going to be mailed to your mortgage company, not you.
4. Trust your gut instincts. You will be fine. Push forward.
5. You need to find some private time to cry once in a while.
6. People will say “it’s just stuff.” When it is your stuff laid out on the curb, it has a ton of memories and it hurts.
7. Once you get over your shock of your stuff laid out on the curb, you will come to realize it is not the most important or valuable things in your life.
8. You only need about a quarter of what you own.
9. Get to know your neighbors - you are going to lean on each other while you will rebuild.
10. It’s a new experience to learn how to “take” but it is okay to let others help you.

One final review of the lessons learned by two TAMUG faculty members, Dr. William McMullen and Dr. Joan Mileski, resulted in the development and presentation

of twenty “governing principles” that should be considered in the event of another serious hurricane strike. These principles are:

1. Continuing the semester is essential. Canceling the semester would be devastating to the students and the university. The recovery period for all involved would be protracted and harmful. Loss of present and future revenue would take years to replace. The entire strategy was driven by this governing principle.

2. Students, staff, and faculty are universally affected in disasters and share common problems of stabilizing and rebuilding their lives. Reestablishing the campus community quickly must be balanced against the reality that all members of that community are members of other communities as well and all involved persons have multiple sets of responsibilities that are sometimes in conflict with each other. Furthermore, emotional trauma is an overlay in all relevant processes.

3. Complex protocols are required in advance of a disaster response. Traumatized students, staff, and faculty, cannot develop these after the event occurs. They can only be amended to fit the reality of the moment.

4. Different segments of the student population have a greater or lesser sense of attachment and loyalty to the campus and this must be considered in developing plans and programs for the student body’s return. New students, both freshmen and transfers, have the least sense of attachment and are the most vulnerable to being lost.

5. Students need to be supplied with a list of things that need to be taken with them when they evacuate. Only students whose families live in the region have grown up with a “hurricane mentality” will have any concept of what the outcome of a storm

will be and what they need to take with them. Their functionality will be related to what they have taken with them.

6. Communications are an essential element of the relocation process and one of the most difficult issues to manage. Faculty and staff already at the new campus location are feeling increasingly overwhelmed with calls from other members of the campus community and solid information is hard to come by in a dynamic and highly fluid situation. It is hard to separate “I think...” from “I know...” Information should not be released until it is solid. The university website was the most valuable means of communications it was the most widely accessible to those off campus. There also needs to be a “glossary of terms” that everyone uses in talking to members of the university community and to the parents/families of students. TAMUG had told the students that their experience would be “cost neutral” but this led to a great deal of misunderstanding with parents and students, especially when it came to housing issues. This term meant different things to different people in different contexts.

7. Doing as much as possible in one place while processing students keeps people together and is efficient. Staff can move from one area to another as the load dictates. From a student and family standpoint, the “community” starts to re-establish itself through seeing familiar faces. Dislocated people need community. This system results in crowding but that is fair trade for re-establishing community. Crowding in this case was good.

8. Be prepared to issue “temporary” meal tickets, parking permits and so forth in case there are problems of computer system integration or system breakdowns.

Removing problems from people's plate reduces their stress levels. Everyone is under tremendous stress.

9. A philosophy of priority makes assignment of the most at-risk students (e.g. freshmen) easier. Doing this in advance takes a significant amount of pressure off of those persons responsible for identifying student housing in future evacuations. Placing staff with students off campus can be problematic. At least additional resident advisor-type persons are needed.

10. As hurricane season approaches, it is worthwhile for housing officials to enter into contingency agreements with property owners/managers so that if there is an evacuation, there is already a set of plans that can be activated. This should be backed-up with a needs assessment form completed in Galveston by students, staff, and faculty that details special needs such as handicapped dependents, students who do not drive, and so forth. Parents and families need to be informed that the university will only pay for housing that it has contracted for.

11. International students need to be handled in specific ways according to the different visa classifications that govern their stay in the United States. A specific international student advisor is needed to assure informed and consistent advice and assistance to these students. A pre-printed card with the name and contact information for this designated person should be given to all international students.

12. All academic departments have communications chains based on land lines and cell phones and Department heads should have this information available in their computers and on paper. Fragmented communication links will cause the system to

break down. Time is needed for the academic management to establish contact with faculty and academic staff. It is not possible for the academic programs to be re-established faster than the communications system will allow.

13. A housing allowance can be explored as an alternative to University arranged housing, or a choice can be given to faculty. In some situations, this may be a better arrangement. It needs to be made clear in advance to staff and faculty that what may be available and provided is substantially different from what they are accustomed to “at home.”

14. International faculty and scholars operate in a legally defined and complex environment and require specific guidance according to their visa type. They need a specific point of contact and need to be directed to make contact with that individual to assure all of their reporting requirements are met. A pre-printed card should be given to these persons with the name and contact information for their specific point of contact.

15. Distance learning techniques are an essential ingredient in situations like this but they involve a totally different methodology of teaching and enormous investments in time to establish. Faculty will have to become accustomed to the technology and methodology of teaching. Some sort of instructor contact via email, chat rooms, etc. is necessary and this adds to the time commitment on the part of faculty. Integrating distance technology into all courses as a routine matter will reduce the trauma associated with the immediate shift from the traditional classroom to the remote location approach.

16. A level-specific plan must be adopted by both campuses such that the campus that is escalating their “code level” is being complemented by the campus that will

potentially be receiving the programs. Both locations have to move up the scale at the same pace and implement corresponding plans and programs in sync with each other.

17. There needs to be a clear pre-definition as to where employees will be needed after the storm as it affects personal decisions that they need to make and decisions that their department might make regarding housing. Communications links may be down and pre-identification is the only way that most of the people will be in the right place at the right time.

18. The need for counseling support is not limited to students. Employees will be traumatized as well and need to be supported if they are to remain contributing members of the campus community and the processes associated with program relocation. Their spouse and children need to be covered by the program as well. Some individuals will be completely paralyzed by events.

19. Natural disasters cause financial systems to collapse. Banks cannot process ATM withdrawals, fund transfers, wire deposits, and the like. Students who work find that their places of employment have been devastated and their cash flow is immediately and adversely affected. Arrangements must be made to bridge the absence of normal banking operations and to support the students and employees who are suddenly without income or access to funds.

20. The class scheduling process is the most intricate of the many facets of moving an academic program and assumptions made in advance, or as the process moves along, either constrain or increase flexibility. Too many constraints can cause the solution set to be the empty set. Be clear as to the assumptions that will guide the

process. Have as few as possible but have as many as needed to retain quality. Recognize that some classes are very difficult to teach on line while others may be relatively easy to teach on line (personal communication, July 26, 2011).

These governing principles, coupled with the organizational and personal lists of “lessons learned” developed by the TAMUG Crisis Management Team, demonstrate a long list of valuable information learned for the Hurricane Ike crisis event. These mostly strategic items were gleaned from surveys, after action reports, and extensive meetings with a wide array of people using different perspectives to reflect on the process. Further adding to the list of information learned would be the long list of lower level, more specific operational changes that were codified for future crisis events by individual managers within their own departmental crisis response plans. Although the necessity of speedy response often prevented the implementation of this learning during this crisis, a long and detailed process for integrating the learning into future crisis response was implemented shortly after the return to the Galveston campus. The vast majority of this strategic learning and improvement will not be able to truly be assessed until the next crisis requiring evacuation, but based on much of the early assessment through surveys, forums, detailed meetings, and after action reviews, significant improvements will occur based on the learning from this crisis experience.

Summary

An incredible amount of learning occurred throughout the crisis response to Hurricane Ike. Even before the storm materialized the TAMUG Crisis Management Team incorporated a process of evaluation and improvement as a major component of

the crisis management process. After each previous storm that had affected the campus, an after action review team evaluated the response and resulting damage and made recommendations to improve the process for future storms. Even a storm that severely impacted TAMUG decades ago, Hurricane Alicia was brought back onto the table for assessment and re-evaluation after Hurricanes Katrina and Rita devastated other universities in the Gulf region. What TAMUG learned from their experiences greatly affected TAMUG's planning. They learned how closing down for a semester could devastate enrollment. They learned strategies to mitigate the enrollment impact by allowing students to transfer funds to the Spring, keeping the students tied to the university. They learned the success of the Tulane athletics teams in relocating to and operating within Texas A&M University, keeping their identity and culture intact. Valuable information was also gleaned from the relocation and orientation of Katrina refugees to TAMU- College Station. Lamar's experiences from Hurricane Rita also provided valuable insight that would help prepare TAMUG's preparation through Table Top exercises as well as recovery. As a result of these experiences, TAMUG worked with their TAMU- College Station counterparts to develop the Business Continuity Plan that would play a major role once Hurricane Ike struck.

Once the Business Continuity Plan was initiated, many challenges were discovered during the deployment. These gaps were valuable opportunities for learning so that adjustments could be made in the plan for the future. Formalized assessment often had to wait until months after the initial call for relocation as the necessary speed in responding often inhibited the evaluation and improvement of different initiatives.

That being said, learning still occurred as responses to situations were developed on the spot and implemented with often immediate feedback. Unfortunately the impending next issue often prevented the ability to reflect upon the learning. It was only after the immediacy of the crisis had passed that the TAMUG Crisis Management Team could take the necessary time to once again learn from and reflect upon their experiences and incorporate best practice into their own practice.

As the semester subsided, TAMUG was very intentional in implementing an assessment process. Much of the eventual learning occurred as a result of this assessment phase. Surveys of students revealed a number of problems, specifically with distance courses and three hour blocks for undergraduate courses. Surveys of faculty, broad student forums, and after action reviews identified more detailed areas for possible improvement in the area of academics, evacuation, relocation, and the actual crisis plan. The TAMUG Crisis Management Team met several times to further flesh these problems out as well as develop possible solutions. From these extensive discussions, lists of what worked well were developed. The team was careful to also list those processes that had more limited success as well as what needed to be changed in future relocations. The TAMUG Crisis Management Team learned from these and incorporated the decisions into the current Business Continuity Plan. These discussions further generated a top ten list of organization and personal lessons learned and twenty guiding principles that will be valuable for guiding the organization through a future relocation. Much of the strategic learning that occurred as a result of the relocation is represented on these lists with many smaller organizational changes incorporated into

departmental crisis response plans. Even today, the TAMUG Crisis Management Team continues to review information from the storm and other institutions to enhance the campus emergency response plan. The latest version is included in Appendix F.

Key Findings

1. Learning in crisis response certainly does not only need to be internally focused. Although the crisis often seems to be unique to an organization's situation, other organizations have similar situations and can provide great information in preparing a crisis response. The response to Hurricane Katrina and Rita provided extremely valuable information to the TAMUG Crisis Management Team.

2. Learning takes place continually through the crisis management response, but true evaluation and implementation will often not be able to occur due to the rapid response necessary in the immediate days and weeks after the crisis. The objective at that time is surviving the crisis rather than preparing for the next crisis. This timing can also be helpful in that during the immediacy of the crisis, everything seems to be critical.

3. Having a formalized process to assess the response is critical. TAMUG used multiple surveys, forums, and after action reviews to secure the data. Since everything is so rushed during the actual time of the response, using different formats and processes to draw out information that may have occurred months earlier is important.

4. TAMUG developed a long list of specific lessons learned and guiding principles that were incorporated into their crisis management plan. Most of these were at the strategic level with more operational changes left to the departmental manager to consider for future crises. This follows the philosophy that each crisis will be somewhat different,

and you can get too detailed in your crisis management response where it becomes constraining for the manager to deviate from the plan, even when necessary. It is better to inform the people who will be working at that level (departmental managers) so they are informed but still have the flexibility to respond appropriately.

Research Question 4

Research Question Four seeks to determine to what extent is the Quality Texas Foundation- Engagement Level Criteria an effective framework for assessing crisis management in higher education. Leonard and McGuire (2007) stated that the purpose of the Criteria is threefold: (a) to improve an organization's processes, procedures, potential, and outcomes; (b) to enhance and encourage sharing of best practices between organizations; and (c) to provide management with a framework for planning and running the business and to create intentional opportunities for organizational learning (pp. 4-5). In addition, the Baldrige Criteria provide several levels of self-assessment tools that are responsive to a college or university's unique situation, a critical component when considering the individualized learning that comes out of a crisis incident (Quality Texas, 2003). Even with the reduced scope of assessment utilized in the Engagement Level of the Texas Quality Foundation versus the full Baldrige Criteria, the broad categories of leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; process management; and business results are extremely comprehensive in their consideration of an organization's performance. Furthermore, these measures have been used for decades to assess the systemic

performance of an organization to great success. The question then is whether there are unique aspects to a crisis that would fall outside the typical parameters of organizational measurement.

In reviewing the data provided by the interviewees, the profile of the organizational response to the crisis was fairly comprehensive in nature. There were multiple elements in this crisis response including operations of different campuses, reconstruction, financial reimbursements, service to the community, relocation of students, leasing of properties, distance education challenges and many others. Many of these were atypical of standard educational operations, but the Quality Texas Foundation- Engagement Level Criteria are able to handle a wide variety of elements due to its focus on process. As a result, even with the wide array of challenges that may arise in the process of responding to a crisis, the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) would be effective in identifying necessary processes for evaluation of effectiveness. The evaluation attribute actually is the greatest benefit from the use of the Baldrige framework - the systemic assessment and learning to better coordinate a systemic approach for the prevention of future crises.

Furthermore, the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) actually specifically addresses work system and work place preparedness of disasters and emergencies under Category 6 Process Management. In many ways, this entire study is in response to this specific question. Although this one question alone would probably not generate all of the information and nuances of a crisis response plan by itself, the existence of the question does demonstrate that the criteria

does recognize the significance of a crisis and its potential impact on an organization. Even with only the single question focused on disaster prevention, the rest of the criteria would provide a very compelling description of an organization and its ability to respond to a given crisis. In addition, the questions that were used in this study were a more generalized, introductory set of questions developed by the Quality Texas Foundation and based on the Baldrige criteria. The full set of Baldrige criteria in this specific area could offer more in depth and probing detail with regards to preparedness of disasters if that were required. However in this exercise where the entire Quality Texas Foundation Introductory criteria were used to discuss the preparedness and response to a disaster, the question became somewhat redundant.

One of the other difficulties in gaining the comprehensive information necessary to develop the organizational profile and response to the crisis would be the determination of the necessary people to provide the data. In any crisis, unusual circumstances may occur that require people to operate outside their usual area of responsibility and take on challenges outside their normal areas of responsibility. However, Crisis Management Teams are not only operational in nature, but in most organizations, membership on the Crisis Management Team is determined by position and area of responsibility/functional area (Coombs, 2012). This means in most organizations no matter what unusual circumstance may arise, the crisis management team will typically be made aware. Although the specific makeup of a crisis management team will primarily depend upon the culture and dynamics of an organization (Harper, Paterson, & Zdziarski, 2006), the successful organization will

always have the major issues of a crisis being addressed by its team. TAMUG certainly followed this philosophy, and every major decision and activity was vetted through their crisis management team. As a result, the crisis management team would be able to provide an extremely comprehensive description of all major crisis management activities.

A second issue would be the shift in perspective of continuous assessment and evaluation that is encouraged through the Baldrige process. The urgency of response necessary after most crises often prevents the systemic evaluation that the Baldrige advocates. That does not mean it does not occur. Crises should occur infrequently at best and not on a standard cycle. The learning that occurs as a result of gaps that occur in the deployment of a crisis approach can be further assessed and evaluated after the crisis subsides and improve the next crisis response. As the next crisis will hopefully be infrequent and not routine, so will the learning as a result of the crisis. In effect, the process will still occur but not on the regular schedule that would occur when assessing normal organizational processes.

The last area of concern in the use of the Quality Texas Foundation- Engagement Level Criteria for assessing crisis management would be if there was some area of focus that is not included in the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) as its existence does not occur in normal organization processes. Certainly there are questions that are ill suited for use on crisis response assessment like questions about employee development which typically doesn't occur during a crisis for example, but most of the participants were able to stretch the questions in that situation

to make them relevant to the discussion. Instead the concern was for some major area that is critical to assessing a crisis that may not be apparent in typical organizational operations and thus would not be included in the Baldrige Criteria (Quality Texas Foundation- Engagement Level Criteria.) In looking at the data provided by the interviewees, two major areas were identified as needing more emphasis in assessing a crisis response. The first of these was communications. During crisis, communications become a much more significant issue to the extent that there are numerous books and consultants focusing on crisis communication. Standard communication processes which may have been effective in normal operations become problematic in a crisis situation. In the eyes of several participants, this meant that communications should have been more prominently discussed due to the critical nature of crisis communications. As one member states:

Yeah, the big thing you missed and it's absolutely the thing that is the most essential in crisis is communications. No, there is no question in there about communication. You know, if you can communicate and you need a good, solid communications plan. We didn't have one. We still don't have one. Closest thing we have is Conway with the website up there and we go to the website. But when you have to talk about housing, when you have to talk about class scheduling, when you have to talk about all that stuff, you need to have a communications plan and you need to execute it very seriously. You need plans of the day. You need this kind of thing that everybody sees and we didn't do that. We relied on our usual techniques and in times of crisis, the usual techniques fall apart. That's my opinion (Interviewee #5, personal communication, 7-29-11).

Still several other respondents found something in the framework that spurred them to discuss communication. One directly spoke to the critical nature of communication:

Well, communication was...I learned my first evacuation was very critical and we had a method. Basically every student and every staff member upon evacuation provided as with a piece of paper that time which indicated how to contact them later on and so that was utilized in evacuations to mostly the other

student and some staff questions and we had a website available previous to our evacuation here where people can go to the website and get frequent updates on the status of what was going on here. We also had a telephone line, available line and multiple lines available and manned those lines during long hours to make sure people can call in and get help as well.

So that had been tried before and clearly it was a key, a part of this success with Ike. We could communicate effectively with almost all of our students and all of our faculty and staff one way or the other and that was essential to being able to make things happen here and so we not only were able to know where they were, we were able to tell them on almost hourly basis what was going on and get them prepared for what might happen and once we made a decision to relocate, then we began to develop communication strategies to really reach out and touch that.

Karen Bigley, who, as you know, was our communications person at the time was central for that, making that happen. We utilized again resources here in College Station for that purpose and we had great IT support with folks here. We actually relocated servers from Galveston to College Station, housed them within the IT community here in College Station for support and we were able to again maintain email continuity for everybody without any changes at all and maintain an active website presence from the beginning of the process and that was probably the single most useful thing we had going on, that communication technique where everyone was able to tap into it one way or the other.

We also augmented that with telephones and you yourselves spent time with the telephone a lot are trying to deal with specific issues and questions that were perhaps not unique people felt they were. They wanted attention from us and we had a number of people working telephones all the time and helping with that process (Interviewee #11, personal communication, 9-9-11).

Perhaps this conflict of opinion best characterizes the use of the Quality Texas Foundation- Engagement Level Criteria in that it only provides a targeted framework that covers the major systems of an organization. At some level, it still is necessary for those who would use the framework to identify those important systems for discussion and review. The organizational demographics of which people participate in answering the criteria will determine whether all of the major and most important systems end up being discussed.

A second issue that was mentioned by several of the interviewees was the impact of the crisis upon the employees. Certainly Workforce Focus is one of the major categories and questions are posed about workforce engagement, health, safety and security. However, several participants did not feel this line of questioning covered, or even provided the opportunity to introduce, the very real issue of balancing the employees' needs versus the organizations. As one TAMUG Crisis Management Team member described it:

So I'm looking at the area, strategic planning, customer focus, measurement, leadership, etcetera. So I guess when it started talking about the workforce focus and the customer focus, they've kind of hit on it pretty good. But since you're talking about a crisis situation in this case, you and I just had a significant conversation right there about people's personal lives. So, to some extent I think these 7 areas kind of hit that, but I don't know that have hit, maybe it deserves a category on its own, if you were kind of tweaking it for the study, what is the leadership's role in understanding and balancing the personal and business needs of its employees, etcetera, etcetera. Maybe it's there, but again, this wasn't written for a crisis per se. So there's that personal side and what's the role and the ethical and I guess the ethical responsibility or compassionate responsibility of institutional leaders in a crisis for the personal needs of their employees.

Because again, there were times when Dr. Loftin would push us and I will tell him this, he would push us and I'm like, dude, mentally our folks are strapped and I know we may need to get the campus up and that people are depending on us, but pull up and that's to give people a chance to breathe. I think somewhere in there it's embedded, but we as the customer workforce, I don't know that it automatically takes me to home life, personal life, and the like (Interviewee #10, personal communication, 9-8-11).

Another described this issue more in terms of the ethics of ensuring work/ life balance, often an impossible feat to accomplish during crisis response.

You've obviously talked to people. So, a lot of times the discussion led us there before the question. But the questions you didn't ask about are the emotional piece and the people piece. It talks about systems and management. And not amount-- stakeholders, but the questions were around benefits to stakeholders,

communications to stakeholders not what were the emotional impacts on the stakeholders? You didn't have -- they don't have a question like that.

In IT, everybody that's at my level on IT, not necessarily everybody, but my level of people, all will agree with this statement: Technology is the easy part, people are the hard part. This is too wonky. You got it? It underestimates the emotional costs. It underestimates the emotional baggage and cost -- there was no question about work-life balance which is an emotional cost. So, it doesn't cover the people piece adequately. From the emotional impacts of it and the work-life balance, I would have added a question- how successful were you as an institution at supporting your staff and continuing a good work-life balance? That's the question I would ask if I were you because that's a big deal, and our success was much more checkered. You and your wife were separated for three months, and you worked till 10 o'clock at night for three months. That's not a real successful maintenance of a work-life balance, okay. Donna burned out for as much I've ever known Donna to be burned out after the experience, pain and scars and pain.

That's the areas that it doesn't address. Partly because of what it is, partly because -- I mean the instrument, the boundaries -- probably because they're short sighted. They should ask those questions as part of a knowledge of work, okay. They are missing. I am taking it out of its...out of its total context, but you're not a great company if you do it on the backs of your people. You're not a Baldrige winner if you do it on the backs of your people. Because -- here's the business side of me - in the long run, it will cost you more than you gained, okay? It's a typical short term-long term situation (Interviewee #5, personal communication, 7-29-11).

With the possible exception of these two areas, many of the others participants felt that the framework overall was fairly comprehensive in nature. Each respondent felt that the Quality Texas Foundation- Engagement Level Criteria provided a framework where they could describe the crisis response from their perspective, and even though several identified a few questions that they not did not feel exactly fit with a crisis response review, many respondents were able to answer every question with some aspect that they felt was important enough to be mentioned. As one participant described:

No, I mean, the questions were not exactly in line with what you've done, but I tried to work in everything I thought was important here. I think that you

covered the gamut pretty well as I was able to give you what I thought was important here. This isn't a perfect match, but I try just to take liberties to fill in the blanks there and describe the important things that were done here (Interviewee #11, personal communication, 9-9-11).

Summary

Although one of the questions in the Quality Texas Foundation- Engagement Level Criteria is specifically focused on disaster and emergency preparedness, the criteria were not developed to assess crisis response. In fact much of the value of the Baldrige framework in a crisis mode would come as a result of the extent to which the organization had used and was using the Baldrige Criteria as an ongoing performance management framework. The extent to which an organization had well-defined and functioning systems, including taking care of the workforce, which enable the organization to adjust more quickly in a crisis situation and provide a much needed stability in the face of rapid and unintended changes. With that being said, many of the operations of an organization continue throughout a crisis. If the operational systems continue throughout the crisis, then an argument could certainly be made that the Baldrige Criteria (Quality Texas Foundation- Engagement Level Criteria) would be useful in assessing those systems and providing opportunity to learn from the crisis. In fact with crisis response being more reactive by its very nature, the Baldrige framework is much better suited for the systemic assessment and learning which can then be utilized to develop a stronger, more systemic approach in mitigating future crises. The counter to this argument is if there is something unique to crisis response that would not occur during the regular day to day processes for which the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) was designed.

In considering the data, the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) successfully provided a framework to assess TAMUG's crisis response to Hurricane Ike. The general areas of leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; process management; and business results are broad enough to capture most of the activities that occurred within the realm of the crisis response. This was particularly true when the interviews included all of the members of the TAMUG Crisis Management Team which was structured to include all major operational leaders. Through this process, an extremely rich description of the crisis response was developed, and the vast majority of participants felt that they were able to share everything that needed to be shared about the response.

However there were two areas that interviewees felt were not emphasized enough to truly capture vital information in a crisis response. Crisis communications is often one of the major factors that determine an organization's success or failure in responding to a crisis. Although some interviewees discussed the communication process in their response, others felt dedicated questions needed to be in place to ensure that communications were discussed.

Secondly, several interviewees felt that there was not an availability under the framework to truly discuss the impact of the crisis on the workers. Issues such as work/life balance, morale and fatigue can play major roles in the long-term success of the organization, and whereas there certainly was the opportunity to explore this area under work force focus, some of the interviewees did not feel as if the standard Quality

Texas Foundation- Engagement Level Criteria easily lead to that discussion and advocated the addition of several questions that specifically addressed this issue.

Key Findings

1. The Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) provides broad categories to review those systems that would generally occur during the normal course of operations as well as a specific question concerning disaster and emergency preparedness. Most if not all of these systems will continue to operate during a crisis response, although some may be more impacted than others. Just as it is important to secure all key operational managers' participation in doing a Baldrige assessment during normal operations, it is even more critical to include all key operational managers in doing an assessment of a crisis response. Luckily most crisis management teams will include such a group, but failing to include a manager in a significant role in the assessment could easily bias the assessment of a crisis response when so many things are occurring at such a rapid pace.
2. Communications play a major role in crisis, and a poor communication plan has often resulted in a minor crisis growing into a major crisis. In seeking to provide as much detail concerning the Hurricane Ike crisis, the interviewees found ways under the Baldrige framework to discuss the communications plan. This may be as a result of all of the interviewees feeling the response overall was successful. In a situation where there was not a feeling of success, the respondents may not

be so proactive in discussing their communication plan without having more pointed questions covering this important component of crisis management.

3. A crisis can impact an organization in many ways. One way that may not be readily apparent is the long-term personal effect on employees as they are often dealing with additional crisis at home. Damage to their homes, injured or deceased loved ones, long hours resulting in bad work/life balance, continued employment concerns, and many other issues can occur in high frequency as the crisis that impacted the organization also impacted the surrounding community. Failure to assess this impact on an organization can certainly lead to detrimental effects for the organization. Although the Quality Texas Foundation-Engagement Level Criteria certainly provides the broad area of workforce to explore this issue, a more directed line of questioning dealing with crisis may be more necessary to truly assess an organization's crisis response.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The purpose of this study was two-fold: (1) to examine the Texas A&M University at Galveston's Crisis Management Team's approach, deployment, and learning as a consequence of Hurricane Ike in the effort to return the campus to Pre-Ike status; (2) to evaluate the Quality Texas Foundation- Engagement Level Criteria as a framework for assessing crisis management in higher education. The relocation of 1700 students to another campus and perhaps equally important, the continuation in many ways of that campus community within the boundaries of the mother campus had never been attempted, so it was important to document the approach, deployment and learning that occurred as a result of the crisis. Unfortunately each response is unique in many ways to the specific crisis that is to be mitigated so there is not a standard process for documenting and assessing crisis response.

With that being said, the Baldrige Criteria are an internationally recognized criteria for identifying organizational systems and processes as well as determining whether assessment and learning are taking place, critical components to managing and potentially preventing future crisis. As the actual Malcolm Baldrige process can take years for an organization to implement fully, a modified, scaled down process developed by the Quality Texas Foundation and based on the Baldrige Criteria was used as the framework to interview all members of the TAMUG Crisis Management Team. The

researcher hoped to use this framework to develop a thick, rich description of TAMUG's crisis response to Hurricane Ike as well as identify the specific approach used, the manner of deployment of that approach and the learning that took place as a result of that response. Lastly the instrument itself would be discussed with the interviewees to determine if it was an appropriate instrument to utilize for future crisis response evaluation.

Summary of Findings

Research Question 1

Research question one asked what approach did TAMUG utilize in their crisis management process. The TAMUG Crisis Management Team was charged early on with developing an appropriate response to any crisis situation that could negatively affect the university. Although plans were developed for a number of contingencies, TAMUG's location on the Texas coast required that an appropriate response to a hurricane strike was the highest priority. The TAMUG Crisis Management Team developed an approach to dealing with this possibility that was methodical, based on best practice, and as detailed as practical.

The first step of this approach was a strong leadership team that was comprehensive and empowered. Consisting of a broad array of individuals with operational responsibility over all major components of the campus, the group was broad enough to provide valuable information to the team but lean enough to make major decisions in a timely fashion, a critical ability during times of crisis. Members were

added to the team during the crisis as necessary, but the group was successful at being knowledgeable of and representational for all components of the campus and was highly regarded by the campus community. The TAMUG Crisis Management Team took their assignment seriously and worked together to develop an extensive response plan in case of a direct hurricane strike. In addition when teamed with their counterparts in TAMU-College Station, they worked well to accomplish the organization goal of relocation.

The crisis response plan that was developed from their meetings played a critical role in the institution surviving Hurricane Ike. Developed from years of experience with near misses and even a few direct strikes from hurricanes, the plan carefully laid out a well-rehearsed approach to an impending hurricane strike, detailing numerous processes for evacuating students and securing the campus. It was a living breathing document that was updated after each use, and probably most importantly was added to upon witnessing the impact of Hurricanes Katrina and Rita on other institutions. The development of the business continuity component and resulting table top exercises provided a well thought-out guiding document during the actual crisis that proved immensely valuable in the initial days of the crisis. The interviewees repeatedly referred to the timeliness and critical nature of the plan that despite its flaws provided a roadmap during a time of confusion and unknowns.

The approach was very broad based with most emphasis placed on a series of white papers that were developed between TAMUG and TAMU-College Station counterparts, teams developed to formally address various functional areas such as financial aid, housing, dining services and others. These teams developed a series of

priorities and agreements but much more importantly developed strong relationships that would become critical during the crisis response.

The approach taken in developing the relocation to TAMU-College Station was extremely intentional. The alignment of multiple processes, access to common databases, interaction with highly trained specialists, and deeper staffing resources were just some of the specific benefits to the plan. Furthermore, the infrastructure of the 50,000 student TAMU-College Station could easily assimilate an additional near 2000 TAMUG students with their large dining facilities, adequate parking, and larger academic community.

Unfortunately much less attention was focused on the workforce and actual student body in the plan. Certainly the safety and security of all faculty, staff and students was the very highest priority in the evacuation of the campus, but very little detail was provided as to what would happen with the staff and faculty who weren't identified as necessary in the relocation. There was also little detail provided beyond the series of one page white papers of what would be done with the students once they were assimilated into TAMU-College Station. The approach of placing students into ongoing TAMU-College Station courses with new faculty had great potential for problems for students who were already experiencing a crisis.

Lastly the approach was a struggle with the unknown. The evacuation and securing of the campus was a process that had been repeated and improved upon. Even though every storm was slightly different, the campus had enough data to develop strong action plans to prepare for most crises. The new addition to the plan was a different

animal. Not only had TAMUG never relocated its student body before, but as far as the TAMUG Crisis Management team could determine, no one else had either. Without having any baseline information – how many students would relocate, how much housing was needed, how much support would be needed – it was extremely difficult to provide the level of detail beyond the broad approach taken by the team. TAMUG utilized multiple approaches in developing its crisis management plan including best practices research, table top exercises, a strong leadership team empowered to address the challenge, multiple cross-university agreements, and multiple other approaches to develop a plan that had never been attempted before. It was as solid of an approach as could be developed under the circumstances.

Research Question 2

Research question two asked what strategies did Texas A&M University at Galveston deploy in applying their approach consistently and ensuring the approach was utilized by all appropriate work units. Crisis often causes confusion. The approach provided broad agreements and specific tools and processes to achieve those goals. The first strategy in applying the crisis management plan was to further refine the broad goals set forth by the original plan. A major component in TAMUG's crisis response was the development of a more specific organizational vision and specific guiding principles to drive decision making beyond the crisis management plan. A crisis management plan cannot address all issues that arise as a result of a crisis, so the guiding principles provided a framework for all university employees to employ in making decisions in a timely and consistent manner. These vision and guiding principles also

worked to reinforce many of the organizational values and principles among the organization members as well as highlight some of the first priorities in the response.

Secondly, although there wasn't too much detail placed on the student in the original plan, that quickly changed in the deployment phase. A high level of emphasis was focused on the students in the process. From ensuring their safety through the initial evacuation to identifying safe housing and meal plans, the team utilized heavy communication throughout the process to assess their status. Counseling sessions, financial support, and donation drives were just some of the activities that were implemented to help students recover from the trauma of the relocation. The approach of placing TAMUG students in as many TAMU-College Station courses was quickly discarded to keep students with the TAMUG faculty and classmates. Some team members felt that the academic quality of the instruction during the relocation was substandard but others felt it was a much better solution than simply cancelling the semester. Several events scheduled to help the TAMUG students retain their "Sea Aggie" identity also contributed to increasing morale among the students. The retention of the Sea Aggie culture became a priority for those supporting the relocation.

A similar emphasis was made to support the workforce. Securing the campus and even offering shelter and food to the workers who remained in Galveston contributed to a sense of loyalty to the mission. Job responsibilities were shifted when necessary to ensure all employees remained employed if they desired. The same was true of faculty and staff who relocated or commuted to College Station to continue operations. Housing, flexible schedules, revamped course schedules and distance

education options were all put in place to facilitate faculty and staff continuing to work with their students in College Station. Every faculty and staff member was allowed to retain their job throughout the entire crisis, something that few other organizations in Galveston could state.

The TAMUG Crisis Management Team documented results to further guide them in their planning. Results and measures were difficult to obtain during the actual time of crisis, but measureable results were actively sought during the crisis for review after the crisis to modify the plan in the future. Various surveys were conducted with students and faculty as well as after action reports conducted with staff and administration to document perceptions. Financial reports and other data were consolidated to provide a financial picture of the crisis response.

Measures were also taken to ensure consistency in the deployment of their approach. A crisis response should seek to reduce or even eliminate confusion, and this is best achieved by a clear, consistent approach. TAMUG developed and implemented a well thought out approach and worked diligently to ensure the approach was enacted by all of its work units. The organizational structure of TAMUG already lent itself to a systemic approach in that it is a smaller organization that was reduced even smaller by the relocation of some of its workforce. This system approach was further facilitated by the College Station administrative relocation team being compressed mostly in two areas, rather than spread out by department across the sprawling TAMU- College Station campus as were some of the faculty. Indeed, simply the fact that the staff were relocated to a new community themselves away from their typical friends and often time family

resulted in the staff socializing and relying on each other outside of the long work hours. The very environment further reinforced the strong sense of familiarity with one another and their operations.

With that being said, the university utilized several strategies to ensure the university's approach was deployed consistently. The first of these was the use of a broad operational group that utilized shared decision making to inform their approach. This group met frequently early in the crisis response, sometimes more than once a day, and then utilized direct, rather than indirect, communication to subunits to ensure that rapid, but accurate information and instructions were deployed as well as received. As the organization was fairly flat in nature, this was an efficient process and ensured that information was consistently distributed throughout the organization. Furthermore, the organization evolved to bring more people to the table when necessary to ensure the group's access to quick reliable information was preserved.

A strong organizational vision with strong guiding principles was another strategy used to great success. The guiding principles clearly defined the university's approach to all employees and provided a valuable framework to guide staff in their decision making. The guiding principles were not easily achieved and the very effort necessary to accomplish the first few steps toward those guiding principles demonstrated that the university was committed to this approach. In addition the guiding principles demanded a series of action for the staff to work on in the early stages of the crisis which further emphasized the approach. Even the list of frequently asked questions, developed to facilitate communication with the students and their families, were shaped by the

guiding principles and facilitated employees' understanding of the operations of all components during the crisis response.

The biggest failing in this consistency of deploying the planned approach, and perhaps of the entire crisis response, was the waiving of the necessary approval of distance education courses. In working to facilitate faculty teaching, the rigorous standards required for distance education were waived. This allowed faculty who possibly were not prepared to teach courses that may not have been suitable for distance education and in doing so, potentially reduced the academic quality of the relocation experience, despite maintaining high academic quality being one of the primary guiding principles.

The TAMUG Crisis Management Team deployed a number of strategies to ensure the survival of TAMUG. Although the approach provided a framework to initiate the crisis response, the team, along with all of the employees of TAMUG and many of TAMU-College Station, worked incredibly long hours under difficult circumstances to ensure the university survived the crisis. Academic progress without significant financial costs, preserving the Sea Aggie identity, and job security for all employees were significant objectives that were achieved by the deployment of the TAMUG's crisis management plan.

Research Question 3

Research question three asked what learning occurred as a result of refining the approach through cycles of evaluation and improvement. Hurricane Alicia devastated TAMUG in 1972. Its impact on enrollment took years to recover from, but TAMUG

never worked to mitigate the possibility of another disaster for over thirty years. Certainly the university assessed and tweaked each evacuation process after each near miss, but TAMUG's crisis management plan for the most part was to hope for continued misses and play the odds. After Hurricanes Katrina and Rita so dramatically affected many of the universities along the Gulf Coast, the TAMUG Crisis Management Team learned that this was not a worthwhile strategy for the long term. The TAMUG Crisis Management Team looked to the experiences of the affected universities to determine that the suspension or even cancellation of a school semester was prohibitive for TAMUG and that other alternatives would need to be investigated. Even though the TAMUG Crisis Management Team learned of a number of strategies to enhance recovery from such a disaster, the relocation of Katrina refugees, and more specifically a number of Tulane University's athletic teams, to Texas A&M University provided another model for consideration. The Business Continuity Plan, that proposed the relocation of Galveston students to College Station, began to be developed soon after that with strong collaboration between Galveston and their TAMU- College Station counterparts.

The plan was a new one that had never been attempted before, so as the plan was implemented, a great deal of information was learned through the attempted deployment. The original plan was necessarily broad so the first thing that was learned was the need to better refine the organization vision and more clarified instructions to the managers based on the now available data. Data such as how many students would relocate, the best method for building a course schedule around another campus's course schedule,

where to put classes and how to outfit them appropriately was all new data, so every new action whether successful or failure was new valuable information to be learned. All information had to be gathered, decisions made rapidly, and the next issue addressed while preserving measurements and data for later assessment and reflection. The rapid fire environment did not provide time for much evaluation of these decisions, so time was made later for proper reflection.

As the urgency of the crisis subsided, however, a concerted effort was made to document the learning, assess the decisions, and incorporate the improvements into the future plan. Surveys of students and faculty, open forums, after action reviews with various decision makers, and extensive discussion groups provided valuable information as to what had been successful in the implementation of the Business Continuity Plan and what was less so. This focused process accumulated data from a wide array of individuals which was then reviewed by a wide array of individuals to greatly enhance the educational benefits of the information. Broad lists of problematic issues and areas of great success were further reviewed and boiled down to lists of lessons learned and governing principles for future use of the plan. These lists were predominately strategic in nature and incorporated into the new plan. Problem issues that were more operational in nature were circulated to the responsible departmental managers to consider in their own departmental crisis plan. As a result, TAMUG will have successfully learned a great deal from their first venture in the relocation of students and have a more effective process to use the next time relocation is called for.

Research Question 4

Research question four asked to what extent is the Quality Texas Foundation-Engagement Level Criteria an effective framework for assessing crisis management in higher education. At first look, the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) cover all of the major systems in an organization: leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; process management; and business results. Furthermore, organizations are compelled to continue their most critical functions, even during a crisis situation. As such, the Quality Texas Foundation- Engagement Level Criteria internationally recognized for its effectiveness in identifying and assessing organizational processes and systems, seems to be a perfect instrument for assessing the activities of any organization, whether in crisis or not. It is particularly effective as a framework for the development of approach and organizational learning; however, crisis deployment is often responsive in nature so it cannot be the perfect instrument for assessing all actions taken during the course of a crisis. With that being said, the comprehensive analysis provided by the instrument can provide leadership with a highly effective, systemic approach to normal operations vs. crisis situation and facilitate institutionalized support where it is most appropriate through the learning process. Most of the interviewees confirmed that the framework allowed them to share all of the details they found important to truly detailing the crisis response. In fact, all of the interviewees felt that the framework, with some minor tweaking with regards to the reality of crisis response, would serve as an effective framework for reviewing a crisis response. The

researcher also found this to be true as long as all managers of important operations would be included, as is often the case with the composition of crisis management teams.

The two areas that were identified as potential areas of concern were communication and the personal aspect of the workforce, many of whom might be personally experiencing crisis during the organizational crisis management response. In both of these cases, the framework provides the ability to discuss the issue under current subject areas – communication under process management and employee personal situation under workforce focus- but neither provide the specific directed questioning that would highlight these two areas as specific areas of concern. The possible addition of a section or at least specific questions focused on these issues could be added to ensure the issues were addressed in a crisis response review.

The Baldrige Framework was not designed to be a tool for crisis management assessment. There are certain challenges in considering the reactive nature of crisis response that do not completely align with the planning and learning processes that are emphasized as part of the Baldrige framework. That being said, the framework provided a valuable instrument to consider the approach, deployment and learning of the TAMUG Crisis Management Team's response to the Hurricane Ike crisis and could continue to be effective in future crisis response assessment.

Conclusions

Hurricane Katrina and Rita had a devastating impact on a number of Gulf Coast colleges and universities, but in many ways had a positive impact on TAMUG. By learning from the successes and failures in those schools crisis responses, TAMUG was able to reassess their current crisis management plan which only described the evacuation and preparation for the storm and add the much needed Business Continuity Plan. Based on the impact to the enrollment and financial situation of those schools impacted by Hurricanes Katrina and Rita, it is questionable whether TAMUG would have survived closing for a semester. As such, the relocation and continuation of the semester was essential.

Even though the relocation and continuation was critical, the process of achieving this endeavor was complicated. It had never been attempted before, and there was really no way to determine how many students would relocate. Without a model to follow or even a starting number to plan for, it was a difficult process to develop, but four things proved to be vital in the development of the process. The first was a strong relationship between TAMU- College Station and TAMU-Galveston. The familiarity of staff and faculty, alignment of numerous processes, and even basic understanding of organization all proved vital in moving the Galveston campus under the umbrella of College Station. Secondly, the crisis management plan developed collaboratively between various counterparts of TAMU- College Station and TAMUG allowed many of the most complicated facets of the relocation to be thought out and discussed before the urgency of the crisis was upon the campuses. Although the plan was certainly not

without problems, so much of the plan was successful that it allowed more time to be focused on the few shortcomings. Third was the vision and guiding principles provided by the campus leadership which provided the guidance to staff to fill in the gaps that the crisis management plan failed to cover. With hundreds of decisions that were at such a detailed level that the plan could not be expected to address, a unifying set of guiding principles ensured that decisions were all aligned toward the same goal. Lastly, the commitment of the staff and faculty, and even students, to persevere through the crisis despite many facing personal crises of homes destroyed themselves, was critical. There was no one else to do the necessary work to ensure the relocation was successful. Long hours, extended commutes and difficult time away from homes and families were commonplace in the response in the successful execution of the Business Continuity Plan that helped TAMUG survive.

Although much of the initial plan was at the strategic level, the university was successful at developing an approach that used a variety of methods to accomplish the goal of continuing TAMUG within the boundaries of TAMU- College Station as well as supporting the faculty, staff and students of TAMUG. Keeping students with their classmates and faculty, housing them together, providing activities and locations for them to congregate and socialize were only a few of the methods used to preserve the Sea Aggie identity. Working with faculty in their class schedules and research and providing support to faculty, staff, and students further served to pull the campus community together. Part of this approach included the support of the surrounding community by offering beds and classrooms to the University of Texas Medical Branch,

meeting space for the Sunshine Group, and housing to the Galveston Independent School District as well as several trips by staff and students to Galveston to work on homes affected by the storm. It was a broad approach that impacted many in College Station as well as those still in Galveston.

To ensure this approach was deployed consistently throughout the organization, TAMUG developed a new group, the Strategic Operation Team that still meets to this day several years later. They employed multiple meetings and a communications strategy that operated on a number of levels to ensure consistency and documentation of the crisis response. Once the immediate response slowed to some extent, surveys, after action reports, and forums were held to learn from this incredible experience so that it might be improved if ever required to be implemented again. This document added further insight to the consistency of the deployment.

Lastly, the Baldrige Criteria, or more specifically the Quality Texas Foundation - Engagement Level Criteria, provide a solid framework for assessing crisis response. The series of questions cover every aspect of an organization's operations and thereby provide the opportunity to discuss all aspects of a crisis response. Certainly there are areas that could be further developed to provide more targeted questions at critical areas of a crisis response like communications, but Quality Texas Foundation - Engagement Level Criteria provide a good starting point to develop an instrument geared specifically toward crisis response assessment particularly if the next level of the Quality Texas Foundation is considered. Obviously as you move into the more detailed levels of the Quality Texas Foundation's criteria, the more specific of an assessment process will take

place. The Quality Texas Foundation - Engagement Level Criteria provide a very solid foundation upon which to build.

Recommendations for Practice

1. Organizational culture and identity are extremely important, and are tested to a great extreme in crisis. In TAMUG's crisis, Hurricane Ike literally destroyed much of the environment and structure of the institution in forcing the university to integrate into the operation of its mother campus. In many ways, this posed an additional crisis in that much of the student enrollment preserved by the relocation could easily be lost to TAMU-College Station if the students no longer identified with TAMUG. Through multiple efforts of communicating and reinforcing the values, and building familiar structure and environment, TAMUG was successful in retaining the Sea Aggie culture and identity and retained record numbers of students as well as faculty and staff. This certainly reinforces what Chaffe and Tierney (1988) state:

Several important organizational benefits arise when culture, strategy, and leadership overlap. When identity is clear and coherent, all who are involved with the organization have a star to navigate by in their efforts to contribute to the group. They see what the organization is and, with consistent strategic leadership, they see where the organization is headed. People generally will choose to leave an organization that they do not find comfortable and to contribute actively to those they believe in. The organization with a clear identity and direction attracts those with similar aims and encourages them to find ways to help. As this dynamic unfolds, participants in the organization develop a sense of worth, both for themselves and for the organization. They feel competent and needed. Their commitment and loyalty to the organization increase, often bringing ever-greater efforts to contribute. In other words, a coherent identity can create an upward spiral of achievement and satisfaction (p.183)

TAMUG retained its identity through the active alignment of multiple strategies and the institution benefited greatly. Institutions facing/going through crisis should be intentional about maintaining institutional culture through deliberately attending to the values, environment, and structure that foster that culture.

2. Organizations should have a strong crisis management team made up of key operational members. This team must be empowered to make whatever decisions are necessary, but should also have the breadth of knowledge of organizational functions to be informed in making those decisions. This can be accomplished by placement of all key members upon the team or in the case of very large organizations, a streamlined organizational structure that provides rapid transmission of important information.
3. A strong crisis management plan that is based on best practice, is routinely updated, and has been practiced through table top exercises and drills not only provides a critical path to follow when crisis actually strikes, but the constant updating and practicing keeps the mind fresh and relevant in the minds of those who must use it. The plan must be strategic in nature but provide as much detail as possible while still offering the flexibility to respond to the unique nature of each crisis.
4. A strong organizational vision and guiding principles are critical components to ensuring that all decisions made outside the plan, and there will be many, are still aligned with the vision set forth by leadership. Having guiding principles can further expedite the crisis response as decisions made at the lower levels of the

organization will not always need to be run up the command chain as long as they fall within the principles.

5. Process is incredibly important in times of crisis. TAMUG was incredibly benefited by being able to continue to operate in an organization that utilized similar processes, terms, and language. That familiarity made for one less thing that students and even staff and faculty had to worry about as they dealt with the numerous other new challenges of operating in a new community on a different campus. Keeping students with the same instructors and same classmates with the same syllabi was just one process that when kept the same reduced quite a bit of the anxiety on the student side.
6. Communication during crisis is critical, and lack of accurate communication can often act as a multiplier to the crisis situation. In today's world of multiple forms of communication, it is important to consistently communicate with stakeholders with a clear and timely message. TAMUG was fairly successful through their use of webpage, social media, email, student forums, and podcasts to keep students updated with the most current information.
7. Course scheduling was one of the most complex processes that occurred during the relocation. Managing multiple schedules in a rapidly changing inventory of classrooms with faculty, staff, and students each with their own schedule of commuting and work schedules would be extremely challenging in normal situations, exponentially so in the urgency of a crisis response. Giving careful consideration to how this might occur in advance of the crisis is critical.

8. In a relocation scenario where the university would have several issues to address with regards to housing, food plans, campus clean up, even though the exact locations and specifics cannot be identified, the development of contracts and agreements can be accomplished well in advance. This advance development allows for better consideration of options as well as timely review by legal counsel so that documents are simply able to be executed, rather than developed on the spot. If developed in advance, the possibility of bidding and negotiating for some services becomes possible than having to deal in a crisis situation.
9. A crisis management team must not only look to the survival of the organization, but also must be aware of the crisis' impact on their workforce. The organization is only as strong as the people working for it, and without proper support, the workforce will not be able to continue in their mission. TAMUG not only did not lay off a single person as a result of the crisis, but also provided housing and meals for many of its employees when they needed it most.
10. The small staff and flatness of the organization contributed greatly to the coordination of the university's approach. Meetings with key operational leaders were able to be kept small and efficient and allowed for the rapid dissemination of important information as well as the collection of valuable feedback and data.
11. The commitment to meet by the major decision makers at least once a day during the early part of the crisis was vital. People are incredibly busy especially during a crisis situation, but the commitment to get everyone in the same room to provide a broad perspective and make decisions as a group not only allowed for

decisions to be based on large amounts of information, but also provided for a constancy in getting those decisions out to the front line.

12. The elimination of the standard of approval for the distance education courses turned out to be one of the worst decisions in the crisis response based on student surveys. Universities must be careful in forgoing some of the well-grounded policies for the sake of expediency as they can eventually lead to negative consequences for the population they are trying to serve.
13. The learning that takes place by a crisis management team needs to be ongoing and continuous. Although each crisis is unique, there are several opportunities for learning from others' experiences and developing best practice as well as conducting regular reviews of the approach. TAMUG benefited greatly from looking at the other institutional responses to Hurricanes Katrina and Rita.
14. Having a formalized process to assess the response is important. During the actual crisis response, there is no time to stop and evaluate. Documenting decisions and processes to be assessed later is important, but just as important is the commitment to formally undertake that process.
15. The TAMUG Crisis Management Team developed a list of ten institution/professional lessons learned as well as an accompanying list of ten personal lessons learned (p. 305-7). These lists, accompanied with the twenty governing principles developed by Drs. McMullen and Mileski (p. 307-12), are extremely valuable insights from people who were on or very close to the front

line of this crisis response. These lists and the insights provided within them should be included as key findings of any analysis of TAMUG's crisis response.

16. The Baldrige criteria, and more specifically the Quality Texas Foundation - Engagement Level Criteria provide a valuable framework for use in crisis management. By considering the multiple questions during the approach, a Crisis Management Team is assured of fully considering the most vital areas of an organization. Secondly, the use of the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) following a crisis during the after action review provides an extremely comprehensive framework to fully consider all vital operations of an organization and how they responded to the crisis.

Recommendations for Future Research

1. This study used the Baldrige framework to develop a case study of TAMUG's response to Hurricane Ike. By interviewing all of the TAMUG Crisis Management Team members and asking questions about the major operational systems of an organization, it is hoped that a realistic portrayal of what occurred during the relocation of the students is created. Unfortunately there is a valuable perspective that is missing from this case study, and that is the perspective of the TAMU- College Station staff and personnel who were incredibly valuable team members in making the relocation occur. Documenting the Hurricane Ike response using the Baldrige Criteria (Quality Texas Foundation- Engagement

Level Criteria) from TAMU- College Station's perspective could provide additional valuable insight to this case study.

2. The Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) cover the broad systems occurring in organizations. When used to document and assess crisis response, there seemed to be several questions that did not fit, per se. For instance, many felt that asking about workforce training and education seemed out of place in a crisis situation. In addition, several interviewees advocated additional questions targeting the communications during a crisis and the crisis effect on work life balance of employees. Still the Baldrige Criteria (Quality Texas Foundation - Engagement Level Criteria) provided an effective framework to develop this case study of the Hurricane Ike despite these possible shortcomings. Based on the solid foundation provided by the Quality Texas Foundation- Engagement Level Criteria, investigation as to whether an instrument could be developed that is more tailored to crisis response could be helpful to future crisis response assessment.
3. The relocation of an entire student body during a semester was a dramatic response to a dramatic event. Although the university fared well based on continuing enrollment trends and financial records, the students were impacted as much as anyone. As the last students impacted by Hurricane Ike graduate and leave TAMUG, a study could be conducted to consider the effects the response had on them personally and how it has impacted their future endeavors. Many people speak to valuable life lessons that possibly come from such a situation.

Now several years away from the response, do they look back favorably on the relocation response or less so, and could their perspective now add to the crisis response dialogue.

Closing statement

Hurricane Ike was a tremendous storm that inflicted an enormous amount of damage to the Gulf Coast. Several universities were impacted negatively, but none was affected more than TAMUG. Fortunately due to their timely review and update to their crisis management plan, TAMUG was prepared to take extraordinary steps to save the semester and possibly even the university. Through the extraordinary teamwork and commitment from the staff of both campuses, a relocation of nearly all of their students to the mother campus in College Station was accomplished in an amazingly short nine days. It has been an incredible experience to meet with the Galveston team members and discuss the details and many decisions that occurred leading up to those nine days and the months following. This thorough, systemic examination of the TAMUG Crisis Management Team's approach, deployment, and learning should be helpful in the crisis response planning of TAMUG and other universities facing similar crisis in the future as well as support the use of the Baldrige framework in assessing future crisis response, particularly the approach and learning phases.

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APPENDIX A. BALDRIGE CRITERIA (TEXAS QUALITY FOUNDATION ENGAGEMENT LEVEL)

Category 1 Leadership

Creating & Sustaining an Environment for Excellence

- (1) How did your senior leaders set and communicate the organizational vision, values and performance expectations during the Hurricane Ike crisis? How did senior leaders include a focus on creating and balancing value for students and other stakeholders?
- (2) How did your senior leaders create an environment that fostered and required legal and ethical behavior during the Hurricane Ike crisis? How did you promote and ensure ethical behavior in all of your interactions?
- (3) How did your senior leaders create an environment for organizational performance improvement and accomplishment of your mission and strategic objectives during the Hurricane Ike crisis? What key things did leaders do (include the key performance measures regularly reviewed by senior leaders)?
- (4) How did you address the impacts on society of your programs, offerings, services, and operations? What key things did you do (Include key practices, measures, and targets for regulatory, safety, accreditation, and legal requirements)?
- (5) Did your senior leaders identify key communities and determine areas of emphasis for organizational involvement and support? What key things did you do?

Category 2 Strategic Planning

Developing Strategic Objectives and Action Plans for Competitive Advantage

- (1) Did you have a strategic planning process for dealing with crisis? What key things did you do (include key steps and key participants and the short- and longer-term planning time horizons)?
- (2) How did you establish short- and longer-term strategic objectives? What key things did you do?
- (3) How did your strategic objectives address challenges presented by the Hurricane Ike crisis? What Strategic Objectives and key things do you do to ensure balance among all stakeholders during the Hurricane Ike crisis?
- (4) How did you achieve your key strategic objectives by developing and deploying action plans? What key things did you do?
- (5) Did you have performance measures for tracking progress relative to your action Plans? What were your Action Plans and Measures?

Category 3 Customer Focus

Understanding Your Students and Stakeholders

- (1) How did you identify educational programs, offerings, and SERVICES to meet the requirements of your students, stakeholders and market segments? How did you listen to students and stakeholders to obtain information and feedback on your educational programs, offerings, and SERVICES, and your student and stakeholder support? What key things did you do?
- (2) How did you build relationships to acquire and satisfy students and stakeholders thus increasing their engagement with you? What key things did you do?
- (3) How did you determine your key mechanisms to support use of your educational programs, offerings, and services and enable students and stakeholders to seek information and otherwise utilize your programs, offerings, and SERVICES? How did you ensure that these contact requirements are deployed to all people and processes involved in student and stakeholder support? What key things did you do?
- (4) How did you determine student and stakeholder satisfaction, engagement, and dissatisfaction? How did you use this information for improvement? What key things did you do?

Category 4 Measurement, Analysis, and Knowledge Management

Managing by Fact to Drive Performance Improvement

- (1) How did you use data and information for tracking daily operations and for tracking overall organizational performance? How did you review organizational performance and capabilities? What key things did you do?
- (2) How did you analyze data and information to support organizational decision making? How did you use data and information to assess progress toward your organization's strategic objectives and action plans? What key analyses did you perform?
- (3) How did you make needed data and information available to your workforce, suppliers, partners, and students and stakeholders, as appropriate? What key things did you do?
- (4) How did you manage organizational knowledge to accomplish the collection and transfer of workforce knowledge and the transfer of relevant knowledge from students and stakeholders? What key things did you do?

Category 5 Workforce Focus

Developing and Realizing the Full Potential of Your Workforce

- (1) How did you organize and manage work and jobs to promote cooperation and your organizational culture? What key things did you do?
- (2) How did you deliver employee education, training, and development? How did your education and training approach contribute to the achievement of your action plans? What key things did you do?
- (3) How did you ensure workplace health, safety, and security? What key things did you do?
- (4) How did you determine the key factors that affected workforce engagement and workforce satisfaction? What key things did you do?
- (5) How did you use formal and/or informal assessments and measures to determine workforce engagement and workforce satisfaction? What key things did you do?
- (6) How did you benefit from the diverse ideas, cultures, and thinking of your workforce? What did you do?

Category 6 Process Management

Designing Work Systems to Deliver Value to Students and Stakeholders

- (1) How did you design your work systems and determine your key processes to deliver student and stakeholder value? What were your key work systems? What were your organization's key work processes?
- (2) How did your work systems and key work processes relate to your core competencies?
- (3) How did you design work processes to meet the key requirements of students, stakeholders and partners as appropriate? What were your key requirements for these processes?
- (4) How did you ensure work system and workplace preparedness for disasters or emergencies?
- (5) How did you implement and manage your work processes to ensure they meet design requirements? What were your key performance measures or indicators used for the control of your work processes?

Category 7 Business Results

Tracking and Using Key Results

- (1) What results do you have for key measures or indicators of student learning and improvement in student learning? What results do you track (display in graphical form where possible)?
- (2) What results do you have for key measures or indicators of student and stakeholder satisfaction and dissatisfaction? What results do you track (display in graphical form where possible)?
- (3) What results do you have for key measures or indicators of budgetary, financial, and market performance? What results do you track (display in graphical form where possible)?

- (4) What results do you have for key measures or indicators of workforce engagement and workforce satisfaction? What results do you track (display in graphical form where possible)?
- (5) What results do you have for key measures or indicators of the operational performance of your work systems and your key work processes? What results do you track (display in graphical form where possible)?
- (6) What results do you have for key measures or indicators of accomplishment of your organizational strategy and action plans? What results do you track (display in graphical form where possible)?
- (7) What results do you have for key measures or indicators of ethical behavior? What results do you have for key measures or indicators of breaches of ethical behavior? What results do you track (display in graphical form where possible)?
- (8) What results do you have for key measures or indicators of regulatory and legal compliance?
- (9) What results do you have for key measures or indicators of your organization's fulfillment of its societal responsibilities and your organization's support of its key communities? What results do you track (display in graphical form where possible)?

Do you consider the response to Hurricane Ike a success or failure and what are the various factors that you base your decision on?

APPENDIX B. INTERVIEW INTRODUCTION AND PROTOCOL

I appreciate you taking the time to meet with me. This study will be really helpful in trying to develop a comprehensive description of the TAMUG crisis response to Hurricane Ike through the use of a management performance system. Are you familiar with the Malcolm Baldrige National Quality Award? Very briefly it is a very prestigious, national quality award that was established by Congress to try and improve performance of American organizations through the use of quality tools and assessment. Basically organizations apply for the award by answering a series of very specific questions concerning their organization which then goes to a review team to assess the application. It is a very intensive application process and implementing all of the quality processes can take years to implement. As a result, another organization here in Texas, the Texas Quality Foundation, that has taken the Baldrige process and broken it down into a series of application steps to facilitate organizations eventually applying for the Baldrige -- so an organization are working off a very preliminary/introductory application that is not as intense and then, a progression stage that is more detailed, etc. all the way through until the organization eventually applies for and hopefully receives this national quality award. The award looks at a number of different industries, and education is one of them.

So, knowing that most educational institutions have not initiated the Baldrige process on their campus, my study investigates whether you can take that very preliminary stage without anybody having any background of the Malcolm Baldrige and overlay that over a crisis management response to see if the questions in the introductory model of the Texas Quality Foundation would be good questions to comprehensively describe and possibly even assess a crisis management response using our response to Hurricane Ike as a case study.

So these questions are coming straight off of that introductory model from the Texas Quality Foundation which is really geared toward organizational performance rather than specifically toward crisis response. As a result, we might find that some questions may not be directly relevant - like people don't collect this kind of data during a crisis - and that's going to be a perfectly fine answer towards my study. And there may be times possibly that we may not have any answer at all to it, but I wanted to see by using the Hurricane Ike crisis, how much of this stuff is directly relevant to our crisis response and by asking the questions of all of the crisis response team, do we end up with a fairly comprehensive picture of the crisis and response. Does that all make sense?

So starting with that and I certainly realize there may also be some blanks because we are talking three years ago, but if you could just start with your recollection of when the crisis response for Hurricane Ike started from your perspective. Ike landed early morning Saturday on the 13th but a lot of the preparations occurred long before that. So

my first question is when did the campus first start preparing for Hurricane Ike and what did that entail?

APPENDIX C. IKE AFTER ACTION REVIEW

Conducted by Dr. Richard Cummins
December 10, 2008

Dr. Loftin:

We have an amazing array of people here today. Carter has plenty to do right now besides being here today. All of you have lots going on right now because of this week being the ultimate week in the year at the university. So your being here today is quite a testimony. I think that you want to help us. Our purpose is very simple to state but very hard to accomplish.

We've gone through an extraordinary period of time over the last three months and those in this room made it possible for us to succeed and survive at times. We want to do one thing before we actually leave College Station and go back to Galveston and resume some degree of normalcy and that is to try to really understand what went right and what went wrong or didn't go as well, shall we say, during these last three months. Especially that time at the very beginning we made a decision to relocate our students here and we had to solve many, many problems. I was quoted in the paper this morning as saying that we had to solve a thousand problems. At least a thousand problems were solved over a period of about a week or two.

So we need to do a few things before we actually go back to our lives of normalcy to try to capture some of those things. Otherwise, if you're like me, your memory evaporates after a while and you don't remember all the details that were so clear to you at one point in the past.

Rodney asked me to kind of take a few moments today to orient us to talk about the timeline and history, so I've adapted a presentation I gave early after the event to the Board of Regents. It's not as long as that, but it gives us a sense of what happened over the first few days over this particular period.

First of all, this is a picture taken from satellite of the Gulf on September the 11th. And you can see that the eye of Ike is right here. Galveston is right here.

And so to this point in time we knew Galveston was going to be affected. There was still no real way to understand how much the effect would be because these things can take a life of their own and move substantial difference either up or down the coast. But at this point in time Galveston likely was going to be directly in the eye of the storm and, of course, it was.

Well, we've taken as a motto here and many of you aren't old enough to remember the phrase in the 50s, but this time we don't like Ike.

I'm sure that many of you have been to Galveston have not been to Galveston. This will remind you of where we are. This is the causeway coming over from the mainland right here. Our historic campus is right here on Avenue U and 50th Street Fort Crockett Campus. The Mitchell Campus is here on Pelican Island protected by a thin bastille bridge and roadway here. The university home where I live is right here. And we also have a small campus on Teichman Road right close to where I-45 terminates coming onto the island.

All of these places were affected, these two least of all. The seawall is along here and did its job very well. But the primary affects were on Pelican Island and the Teichman campus.

Remember that in this event 75 percent of Galveston Island was under water at one time. 75 percent. Fortunately the home I live in and Crockett Campus was not, nor were the major buildings on Pelican Island.

This is a photo of Mitchell Campus. Again, this is the bridgeway coming onto the campus right here. All these buildings here were high enough to escape the storm surge, which is about 11 feet on the island above mean sea level.

The damage to us was primarily along the waterfront. But water did intrude along the edge of the campus here, and you can see where the brown grass and dead trees and the dead brushes are right now, giving you a sense of where the saltwater came to.

The buildings to receive serious damage here were our largest dormitory here, which lost its roof, and what we call the Sea Aggie Center, a converted warehouse here, which lost part of its roof and sidewalls, as well.

Again, along the waterfront here, the dock area took a great deal of damage. Almost all the small boats docked there were destroyed. It so was a serious hit to us, but by no means a catastrophic hit. This is what really happened.

We have a fairly well-used plan for how we actually monitor hurricanes once they appear to be likely to enter the gulf. And so well over a week before Ike made land fall into Galveston, we were really watching the storm very carefully.

The man right there, Brad McGonagle, is kind of the key guy keeping his eye on things, watches the models, the update several times a day and alerts me and others on the campus as to the status we should be considering as we go forward.

The key thing happened on 10 September. That morning I was in the office about 7:00 o'clock and the latest models which are 8:00 o'clock Eastern Time were showing Ike still going pretty far to the southwest of us, so I was not too uncomfortable. I was actually looking at data showing the largest enrollment of student campus of 9% over the previous fall, so I was feeling pretty good.

As the day wore on, though, I got less good because each model update was showing a progressive trend of the storm track towards Galveston. And we had a social event for one of our employees in the service area that afternoon at 2:00 o'clock. At 2:30 I gathered my senior staff who were at the event and we talked about it and we decided at 2:30 to close the campus as of 5:00 o'clock that day. Very serious even for us based on what we were seeing at that time, and so the right thing to do was to get the students away, get the staff, and kind of shut things down and ourselves get away, as well.

So we closed the campus at 1700, 5:00 o'clock. By 7:30 a bus left our campus for this campus with those students on board who lacked transportation of their own. At that point in time all the students had left our campus. Most students had left Galveston Island.

Of course, those who live off campus we had no way to control them. Those living on the campus were definitely gone by that time. There was not as there had been

when Rita was threatening Texas, there was not an evacuation prospect for Houston, so there was really no difficulty leaving Galveston at all.

The next day a lot of things happened. We relocated the ship across from the Mitchell Campus where it's pretty exposed to a slip at pier 40, which has three sides covered. That gives us more security. The last thing you want is a 17,000 ton ship loose. That could be extraordinarily devastating. There was no way to move it anywhere else but just to get it across the channel with tugs.

We also were able to move our electronic web services, the mail, here to College Station. Early that morning it was up again. And we opened up a communication center here manned by Karen Bigley by 8:00 o'clock that morning, as well.

So by early on Thursday morning essential services were in place here. We had a person on the ground, we had telephone lines, we had web services up, and we had electronic mail up here. Safe from the storm and that was really an extraordinarily good thing to happen because that was our primary communication was the website from that point on.

At 12:30 that day I was told that our staff had completed security on the campus the best they could and were leaving. So at 12:30 that day we really had completely evacuated everyone with the exception of eight people, four campus police officers stayed. They ultimately sheltered with the Galveston Police Department which was standard procedure for them; and we had four officers remaining on the clipper who stayed there through the entire storm.

Then of course at 2:10am on Saturday the 13th the center of hurricane Ike's eye crossed the shore into Galveston. And it was over an hour in fact crossing the island. So people were able to come outside in calm weather, actually, for quite some time during that passage.

We think that the Sea Dorm roof was lost when the backside of the eye reached Mitchell Campus there, because amazingly there was no water damage on the fourth floor of the dormitory. That side of the storm was dry as far as the front side the storm, so the winds changed direction, went under the roof, picked it up, and took it off, but we didn't have any water damage. Very fortunate for us.

What we did in preparation is, again, a well-established process. Bill, what's the average number of evacuations? One a year or one every other year?

Mr. Pickavance:

Probably one every third year or so.

Dr. Loftin:

You were there 30 odd years and you saw a number of evacuations over time. So we practiced a number of the evacuations a lot. One of the things we do is we capture information on where students, faculty, and staff were to be. That was done on paper up until (inaudible) and it was pretty – I spent with some staff here in College Station about a day on paper trying to track that stuff.

So we built after that a form and so every student, staff were asked to tell us where they were going during the storm and how to reach them. So we had a database

available to us that Karen Bigley was actually in charge of, which to be used to interrogate and find out where anybody was at any one point in time. It was very useful to us, as well.

The key thing the staff did was secure or remove specific things. There was a long list of things we can't afford to lose. Many were I believe aboard the ship. We were able to move pallets aboard the ship. The ship safe was used to secure our cash, records from HR, for example, were moved onto the ship. And some things were brought here.

And so we have, again, a well-established process and plan for what to take with us, what to leave behind, how to secure that as best we possibly can. We bring out dry ice, for example, to make sure scientific specimens can be stored over a period of time without power. All of that was done prior to departing from the island.

We were able to, of course, within the various buildings there cover up things that were moisture sensitive, and we lost almost nothing inside the buildings, although a few things, windows were blown out, and some water intrusion occurred from rain, but nothing was damaged seriously in our buildings because of that.

Ike was a rather odd storm. We normally measure hurricane strength by the wind velocities and under those measurements Ike was a category II storm. And there have been quite a few category II storms that crossed Galveston and came close by. So at first people weren't too worried about Ike, because it wasn't much of a storm, but you saw the picture I gave you earlier how big the storm was. It was a very, very large storm. The extent was equal to what category IV and V storms typically exhibit. And that size contributed to a much larger than a category II expected storm surge.

Actually we were very lucky in Galveston. The storm surge in Galveston was around 11, 12 feet max and crossed Galveston Bay to the east of Bolivar towards Gilchrist it was well over 15 feet. Some recorded almost 20 feet.

So had the storm gone ashore around Freeport. Not in Galveston itself. We would have had much more damage than we did and we would have had major water intrusion almost certainly into our buildings on Pelican Island.

So, again, it was a bad storm. Galveston was hurt very badly, but it could have been much worse by a 40-mile shift of the land fall of the storm.

We were very fortunate that after we experienced summer of 2005, we felt it very important to establish an operational continuity plan. The last time there was a major storm that caused serious damage to the Galveston campuses was in 1983. I wasn't there then, but Bill Hearn was, and it was a pretty serious blow because we lost housing, for example, both on campus and on the island. And it seriously impacted the enrollment at Galveston for at least a year, if not more. And we were much smaller than we are today.

So during the summer of 2005 after I arrived as CEO in May of that year, we are talked about the need for us having a plan for properly returning operational normalcy here in Galveston or elsewhere if we had a major storm affect us. That thinking process was accelerated after Katrina hit New Orleans in August of 2005, and I was here the day we decided to close the campus in Galveston because of Rita in September of 2005.

I spoke to Bob Gates, who was president then, and Bob and I decided the right thing to do was to allow for a relocation of academic and student services to College Station if we could not return to Galveston within a two week period of time after evacuation.

And during the fall of 2005 a team of people, many of whom are in this room right now from both Galveston and College Station, worked together to build that plan. We tested only in simulation – tabletop simulation after (inaudible) until now when it was actually utilized.

So we had a meeting here that Russ Cross convened at 4:00 o'clock Sunday afternoon in the President's Conference Room in 1030 Rudder Tower. And about 4:30 that afternoon the decision was made we had to activate the plan. It was clear we could not return to Galveston in two weeks.

The plan was turned on and folks got very busy. The clipper was, of course, basically unharmed by the storm. Our plan was in fact to move it back to the campus very quickly. It could power pretty much the entire campus. Unfortunately Ike did something else to it. Besides water and wind, it brought silt. We had nine feet of silt accumulate so that little piece of our plan didn't work too well.

But Monday morning bright and early folks in this room began working on what it would take to bring to Galveston students here to College Station. And a week later they began to show up.

Of course all of you pretty well know where the problems were. We had a huge amount of work to do to find housing and appropriate classroom, lab space here on campus to take care of the students. What we early on set out two principles. We wanted to make sure we had the best academic experience for our students even though they had to leave their original campus location. And we had we wanted to make the process as cost neutral as possible for the students, the staff and (inaudible).

Ultimately over 1600 of what had been 1772 the day I closed the campus relocated here. That's 91 percent of the student population. I think that's pretty extraordinary. Realizing that we were two weeks into the semester, we had a lot of new Freshman. Large freshman class in Galveston by our size, and so their loyalty or sense of belonging was tenuous to some extent at that point in time had we not chosen to come here.

We had a variety of ways to support them. We, of course, had several staff and faculty who actually moved here and lived here through the entire fall semester. But we had many faculty living on the mainland who weren't affected by the storm except for power loss for a few days. They commuted up here and spent two or three days a week here teaching and lived at home the rest of the time.

We had some faculty adjuncts who had jobs. They couldn't just relocate with us. And we were able very quickly to put into place for them online learning approaches so they could teach their students using distance learning technology.

And that was, of course, rough because we had little time to make that work right and they learned how hard it is to teach that way. Many of us spent three or four times the amount of time that we spend in regular classes because of all the individual interaction of students.

I had faculty teaching classes of 90 by themselves, no TA, no help answering e-mails every day. You can imagine how much time that would take. We did one thing other, as well, here. We actually told students you have two choices. You can come to College Station with us to take care of you. If you can't relocate because of whatever reason, no matter what it is, if you can't come with us you have two choices. You can drop out completely and we will refund the allowable amount of tuition and additional fees, or we will turn forward a hundred percent of tuition and fees from the fall semester to the spring semester when you turn them in.

That was a very calculated thing because we wanted to incentivize as much as possible the students who could not come here to come back to us in the spring semester. I'm not sure if I can show cause and effect, but certainly we're showing right now a very strong spring enrollment. So maybe that had an effect, maybe it didn't. We don't know that, but we are seeing a very strong enroll for the spring semester, which is very gratifying for all of us.

I'll leave with you with this. This is a – many of you may have seen this. It's actually on the seawall right around 49th, 50th Street. It's a statue built in honor of those who survived the storm in 1900 who persevered and remained in Galveston.

This picture was taken on Friday before the storm struck on Saturday, early Saturday morning. You can see the spray coming over the seawall where the waves crash against the seawall behind it there. That statue is exactly today where it was then. It became a symbol of the city that the spirit of Galveston. We showed something in this particular event that's important to all of us. The Aggie Spirit.

I don't know any university anywhere in the world would have done what we did. We did something very extraordinary in a very short period of time and you people here in this room plus the people who couldn't be here today are the reason it worked. No one ever told me we couldn't do it. Maybe you thought it. Or it was too hard or it wouldn't work. We just did it. That's what it was all about.

I thank you for all you did. We'll do more as we have time to show our appreciation in many ways, including open bar at 4:30.

Right now I'm going to give Rodney our chance to get, us going on our task today and try to begin the process of capturing what we found out about this whole process. Thank you, Rodney.

Dr. McClendon:

Thank you, Dr. Loftin, and thank all of you for being here today. I haven't worked here until March of this year. I often joke since Hurricane Ike that we didn't need all of this to get me to come back for a visit. Now that I'm here it's good to see all of you again and to work with you closely and we have a lot of work to do today.

Let me kind of set the stage as to how we will go forward and give you a little housekeeping. This is Melissa McPherson and she is our stenographer for today. She is here to record everything that goes on so that Dr. Cummins and his staff can record this and go back and identify the lessons learned, the things that we did right, the things that we could have done better.

And so what she had needs for you all to do is when you are asked to speak or when you volunteer to speak, to speak loudly and to introduce yourself at the beginning so that she doesn't have to look out at your names. So it will be redundant. So every time you talk, give your name, speak loudly so that she can get it accurately recorded.

At this time let me make an introduction that is a true honor to make. When we came up here I know that we would need to do an after action review and Dr. Loftin and Dr. Cross said we will do an after action review.

Well, before I even got into that stage of it, I knew that there was one person that when we got to this point would be the one that I would ask to this after action review.

Dr. Richard Cummins is a faculty member in Agricultural Leadership Education and Communication as well as the Bush School of Public Service. He is the Director of the Corps of Cadets Leadership Excellence Program and he has had extensive background in being an entrepreneur.

But more so than all of this biographical information, Dr. Cummins is a teacher's teacher, he is a professor's professor, and, for me, he is a friend's friend. And I owe him a lot because he helped me get through my dissertation last year. He gets the floor. I'm going to turn it over to him and he will explain where we're going from here. You all give Dr. Cummins a round of applause.

Dr. Cummins:

I've got quite a job. I'm standing you between you and an open bar. A few things that we're going to do this afternoon is step through and look at this plan. I've got just a few slides. Sara Pena is here with me today. Sara works in my office with me. She's another set of ears, so she will be listening closely. I will be listening closely, our stenographer will be capturing this information here. So your job today is simply to participate and help us step through.

We are evaluating a plan. This is not a performance review of an individual. This is looking at a plan, as Dr. Loftin pointed out here. We're trying to find out the things that need to be looked at. Obviously we want to introduce the things that work and keep them in the plan.

But as we step through here, if you are from Galveston and you were the lead or you had a key part in the particular area that we're talking about, you get first cut at whatever the topic is. And then those of us that were up here supporting you, we would like to have an opportunity to give some input in terms of how things actually worked.

So this is a no-fault discussion. This is simply looking at the plan as we move through it. Sara, you've got – everyone has got a copy of how we're going to proceed here? And I'm ready for the slide, if it's ready.

I am somewhat of a history buff. I study the presidents. I love this particular president for some of the things that he did. He said a lot of very interesting things, but one of the things that's most important about you and why this quote is up here. You didn't just talk about it. You actually did the work. You were the ones that were here.

Now I know the fire chief does not put out the fire. It's the firemen. I know that the engineer does not build the car, it's the mechanic out on the line. But I know that some of you served as the top person and also right there on the front line, as well. So

you've got some great input that you can give us today as we go through this particular plan.

This is the progression that we're going to go through today in terms of looking at the different parts of the plan. Rodney was very gracious and made a copy of the plan available to me, and so I am working from the document that was designed for this particular set of events the Dr. Loftin has point out here. This is what you have in your hand.

So we'll begin with that concept of operations in terms of what we were actually trying to do. And a key point down here is this cost neutral piece. That was very, very important. That was pointed out to me as something that need to be talked about a bit, and trying do that is certainly got to take into account a number of factors here.

Obviously this is not just about money. Dr. Loftin, you're going to get a bill for what this all looks like.

Dr. Loftin:

I've already gotten quite a few, as a matter of fact.

Dr. Cummins:

But it's just not about the money in terms of what happened in the last 90 days as you had to relocate here. So in terms of how you proceed to try to make something cost neutral here, Rodney, where are you? If you've got something you'd like to say about some of the things that did happen in terms of the community support, et cetera, why don't you give us some feedback on that and how that helped us approach this cost neutral piece.

Dr. McClendon:

Absolutely. Of course the university itself was there opening arms when we relocated here, but we have classes all over the community and churches and any corner that you can. The community gave great donations so that we could give clothing and household supplies to students, faculty, and staff that were displaced. The Association of Former Students donated or contributed \$200,000 to help students who lost things they couldn't replace.

The Aggie Moms that some of our colleagues will say were absolutely phenomenal. Give it to an Aggie Mom and it will get done. And so they got materials together, they came as far from Waco, Fort Bend, et cetera. And then the A&M students in true Aggie fashion were always there for us. And this is not a complete list. People let us utilize their databases, their distribution list, their newspapers, et cetera. So it was both physical as well as technological and resource wise.

Dr. Cummins:

I can't let this opportunity pass. I work with the Corp of Cadets, which are great young men and women. They gave a student, one of ours, Matthew May from Galveston area, his family did suffer some of the damages. He went down there, checked on them, came back had a great idea. We need to do something to put together

some kind of support for all the people that are suffering. He had a great idea. He got a great plan with some wonderful people, and he did the thing that is ubiquitous to A&M students: sold t-shirts. Over \$35,000 worth of shirts were put together in that sale in a three week time. So a lot of people up here were very interested in helping you.

Now from your perspective in terms of keeping something cost neutral, what should be included in a plan like this?

Mr. Hearn:

I'd add one thing that we can do much better is a better list of what students might evacuate with. In particular I've been asked to come back in and assist with the Corp of Cadets a little bit. I know we did not send the Corp of Cadets away from campus with even a minimal number of uniform and things. We could come up with a much better list. When you leave, leave with these things. Years ago we learned to say when you leave, clean your refrigerator before you go. We learned that after Alicia as a lesson learned. I think we can do that.

Dr. Cummins:

Very good. Something else?

Mr. Conway:

One of the things along with our students is a faculty to take their stuff. And we're in a somewhat digital world and with devices as you're able to communicate there's a lot of ability for departments here to support us with computer equipment almost immediately, but the data they didn't necessarily have with them. And we don't have a central repository for all data on the campus as you don't here, either.

So that's something else we need to talk about with particularly faculty. Teaching notes both paper and digital ad digital copies.

Dr. Cummins:

Okay. Someone else?

Ms. Susan Lee:

I have one. I may be speaking out of context here, Grant, but you can help me on this one.

I think there were a lot of textbooks that were ordered prior to this storm and they stayed in the bookstore; is that correct?

Mr. Shallenberger:

Uh-huh

Ms. Lee:

And they had some curling of pages started to affect those books. So I think one of the things we might want to think about is if books have not been distributed prior to

an evacuation, we should properly try to transfer them to a safe place, perhaps aboard ship.

Dr. Cummins:

Any other comments on cost neutral?

Mr. Shallenberger:

I might add – I think this is an appropriate place. We need to remember cost neutral has some complicating things. I think when we came up here and we thought about cost neutral to students, we thought about what I call the traditional students who live on campus or live off campus and they're renting. Even those who are renting or in leases, are they required to continue to pay? We've heard this over and over again. Are they required to continue to pay, are they released from their rents? If they aren't released, how do we assist them up here? The non-traditional student might own a home back in Galveston. So cost neutral we have come to see, at least in some instances, is pretty challenging.

Dr. Loftin:

If I could add here - We need to be very careful next time this is done to define that term well. We caught grief. Neal caught. Grant caught grief. I caught grief. Many of us caught grief because parents or students interpreted in their own way. And we need be much more clear, I believe, up front in explaining exactly what we mean by using the term at all, in fact. What does it really mean because everyone has their own sense of what that meant to them.

Give you an example that was very difficult for us. Our intent was that we would arrange for housing. As you might expect, there was some very proactive parents who leaped ahead before we even got the students here and for their particular kids got their own housing; and were very upset with me and others because we wouldn't reimburse them for that. Our intent was to take care of it collectively through dormitories or contracts with other complexes or other groups like that so it was going to be managed.

And these folks that took their own initiative to go out and do that thought they were do doing the right thing. So we must be very clear about the rules. Over time we evolved those rules but we didn't have them in hand to begin with and we paid the price for that especially the personal abuse that a few of us took, especially you and Cassie, I think, Neal. You really had a hard time dealing with those many, many phone calls, people yelling at you about their money.

So that's – money is an important thing to people. We learned that the hard way. Defining what we mean by that or defining it in a different way, expressing it is important for us.

Dr. Cummins:

I've heard so far we need to define what "stuff" is. For the students to take your "stuff" with you. We need to define to the faculty what "stuff" is. We need to be cognizant of assets that we've got that not have been distributed, take care of those. And

we really need to include a definition of what some of these terms will mean. So your next plan will have a glossary, Rodney?

Mr. McClendon:

Yes, sir.

Dr. Cummins:

A list of terms of what this actually means. Okay. Anything else on cost neutral that we should consider for next time?

Dr. Cepeda:

There are things that are – it's going to be hard to make a cost neutral approach. For example, the faculty, people who are doing their research and certainly those who are tenure tracts. They risk losing three, four months of work. Put them behind. And so we already – they are ways we can minimize that loss by giving tenure extensions, things like that, definitely those individuals may need additional mentoring and support during that time to review for that.

Dr. Cummins:

Okay.

Dr. Donna Lang:

Beyond the glossary that you're describing, it might be a document that looks like a shared set of expectations. What does cost neutral mean as far as pets and children and spouses. And it may not be always a definition but just kind of setting an expectation to people about what the university's responsibility is, because I think we did bear a great deal of responsibility to take care of our people in this.

Dr. Cummins:

Excellent point. Anyone else?

Dr. McClendon:

We also – and considering what we do for folks we need to clarify for them that it may have tax implications for them when they're making a cost neutral. And what are the consequences to the person we're serving doing the right thing but are we also causing them some financial or tax challenges?

Dr. Cummins:

Excellent point. At the same time by fixing the problem we make it worse.

Dr. McGonagle:

One thing to think about, too, not only on this end but one thing we experienced in Galveston, we had staff that came back and were working that didn't have homes.

And we were to accommodate them as best we could on campus and areas around campus.

But we looked at cost neutral opportunities for them to stay in accompanying dormitories and houses next to the campus and defining what cost neutral looks like to them and what that means in terms of rents they were paying in relation to rents we would ask them to pay if they're going to stay in properties that we own and things of that nature. So it's not only up here, it was still effected down there, as well.

Dr. Cummins:

Any other comments? I understand some work has already been done on the evacuation plan. The things that I know about in terms of discussions that have gone on certainly three phases to that: pre-storm, evacuation, and then things that happened afterward.

What are some of the things just briefly those of you that were working the pre storm worked about the plan that you would want to see included or what are some things that need to be examined in terms of before the big move comes on?

Ms. Tammy Lobaugh:

I know one thing that we were faced with the physical plant and Marine terminal, we were trying to allow departments to continue using their documents as long as they possibly could throughout the day. But by doing such that prolonged the preparation, the load-out of the documents. So that was one thing that there was a little bit of lag time where we were waiting on departments to close out their documents, prepare their documents, and make them ready to actually physically be load up and transported to the ship or placed on a truck to be transported to College Station.

And, you know, I'm being selfish in that I want the departments to have use of their documents, but at the same time, I'm looking at staff there in Galveston that are taking part in this that need to get back to their homes and dwellings.

Dr. Cummins:

So something like decision points when things need to be done by?

Ms. Lobaugh:

And if things – I don't know if it's feasible in all cases for information to have be duplicated, or if we can as a campus – it's not going to be an easy situation. I clearly understand there was departments that needed to continue use of the equipment or – not the equipment but the data.

They were trying to continue their task at hand as long as they possibly could, where we're sitting back, eager to get our hands on it and physically secure it.

Dr. Cummins:

Okay.

Dr. McGonagle:

One thing we did last week, we had a small meeting of the non-academic, non-student affairs folks who were in Galveston and did a small after action report then.

And one of the recommendations, which I thought was great, was to establish a code system for the campus similar to that of Homeland Security where we would have a level 1 through 5, 5 being hurricane evacuating, 1 being June 1st, first of hurricane season.

But each level, every department would formulate their own internal plan for that level. Which we have that now, but it's not quite as definitive as laying it out in that manner. But each department would know that when we were in level 1 these are the things we do. Steve and I talked about that yesterday. We, Dr. Loftin made the decision to go to level 2, these are the things that happened.

Departments do that in a formal some do it on an informal basis, but put more teeth and more meat into that type of a structure so that everybody knows. Donna has always advocated the checklist. So that we know when we go to level 2 this is what happens specifically.

Like I say, again, we have that to an extent, but not drilled down beyond more of just a "this is the things we're going to do versus the things we need to do."

Dr. Cummins:

Formalizing protocols and publicizing protocols, education, whatever is required in terms of as we move through various stages these are the things that we're expecting to be done with your plan and in your department?

Dr. McGonagle:

A lot of folks have that but it's just not as – not necessarily disjointed, but it's not as cohesive as it could be in what we're discovering.

Mr. Pickerance:

Brad, along those lines, do we tie into the EOC in Galveston in any way with that? Because they usually have a set of criteria that we ought to...

Dr. McGonagle:

We do through our police – campus police.

Mr. Pickerance:

I mean, do we have liaison with them?

Dr. McGonagle:

Yes, through the police department. That's about it. I mean, we don't – we interface with the county and the city, but far following their stages, we just basically wait for the evacuation call to come or anticipate it coming, then we make the move. But we're not integrated with the city or county in terms of their EOC program, per se.

Ms. Lobaugh:

Along those lines, in that meeting that Brad is speaking of, we were envisioning something similar to a sandwich board dual-sided with color codes, and, you know, maybe even staging those throughout campus to where the communication is intensified to where there's nothing falling through the cracks.

The campus as Grant was talking a minute ago about some of our students that are older students living off campus. They might not be getting the e-mail communications that we're sending out. They might not be hearing the phone messages that are going to the desk or dormitory rooms.

This way it could be staged throughout campus, we could reach vendors, we could reach contractors, guests, as well as all of our student body.

Dr. Cummins:

So quality of communication?

Ms. Lobaugh:

I think more of an intensified thorough.

Dr. Cummins:

Okay.

Ms. Norma Duran:

In response to what Brad said, one thing that I noticed was, at least in our department, the cohesiveness, you know, we hear the word, we leave campus, but there isn't that – you know, the details. Where are the details? I think something as simple as a schematic on having some sort of escalation process that when we get the word that it's time to leave, well, what's the escalation process? What's going to happen when Brad sends out that text message? What's going to happen when Brad sends out that text message? What's going to happen when we don't return? When I left the campus I knew I was going home, but after that, what happens after that if we don't return? So again it goes back to communication even if it's just a schematic department wide, but on top of that you have to follow it up or it's a good idea do follow it up with training. Each department needs to be trained. There needs to be a hurricane logistics strategist that does campus-wide training every three months or every two months. However many months it needs to be. There needs to be a schematic and there needs to be follow-up training. Because then when it does happen, you don't hear all this talk about, well, I didn't know. I didn't know that that's what they were going to do. Because there was so much shock and there was so much pain and the emotions were high we were dealing with – I worked with the housing. It was so hurtful that it was hard to get them into housing. So even if it's something as simple as this. In each department having, okay, this is the escalation process. This is what's going to happen when Brad sends out the text message. There has to be some sort of escalation process and you have to follow up with training and having a hurricane logistic strategist or whatever we want to call it. Then everyone knows. Everyone is on the same page. Even if it's something just as

simple as this. When there's an emergency, this is the escalation process that we follow and then everyone is on the same page. But, again, it must be followed up with training.

Dr. Cummins:

So widely disseminated plan that people know about.

Ms. Lobaugh:

I'm in full agreement with you. And this is the same type of information, format that we were discussing. You know, stage one hurricane watch in the Gulf. Not watch as a watch or warning. Hurricane tropical storm number so and so. You know, watch your weather report. Short and simple. When it escalates to the next stage. Tropical storm number two is now intensified. Continue to monitor the warnings. At that point make sure your medications are filled, make sure to start a tentative plan on evacuation, communicate with your professors to see what the campus as a whole is looking at doing if you have exams coming up. The next escalation. University prepares to shift the ship. Utilities will be brought down within a 24-hour period. And just spell it out. And, you, know, define that. I think we've become – there's a tier that's become very familiar with hurricane evacuation and there's another section that has never, ever gone through it. And I think that there was some uncertainty there. And I think if we could have a format along those lines that were just described or what we discussed in Galveston last week, short and simple. Don't bore people, don't confuse people, don't overload people. Back it short and simple where the recognition is as a tier stage and what you need to focus on in those next 24 hours is very well spelled out.

Mr. Pickerance:

What I'm hearing here a little bit is trying to establish some sort of battle plan. Where we have some sort of a situation, set up a room, whatever setup at Galveston as well as here at A&M where you start exchanging not only the ideas, what we have to go through at Galveston but also start coordinating with the moves that have to be taken up here other than the unofficial lines, which obviously were great. I wasn't here. Having gone through five of them at the Kennedy Space Center, that was extremely important. That's the reason I brought up the EOC. Because all of a sudden those guys are closing bridges on you, you have to have some lead time. I'm going to bring up a point here at some point about what we do with the ship, because we're very fortunate that the ship didn't end up on the dock down there. It could have. As a sailor, you want to be out of port. There are all kind of extenuating circumstances. But that gives you an opportunity to back this stuff up if everybody is hooked up by telecoms and talking on a particular, you know, a particular routine basis where everyone is involved, including the people up here that have to make room, the engineering buildings and other areas, classrooms, and that kind of stuff.

Dr. Loftin:

I stood up because looking around the room here we've really integrated Galveston College Station. We haven't talked much about what should College Station

do, if anything, to get ready if we're getting ready in Galveston. Because there could be some things to be here that might have made things easier, if we had done them in advance. As it was, I don't think anything was down here to really prepare for our relocation before we started on the 15th of September with that process. And so we knew almost two weeks earlier there is a possibility of this. Having said that, we go through a hurricane, you know, monitoring process several times a summer, typically. So you don't want to pull the trigger too fast, either, but there has to be some way for the folks in College Station need to be thinking about and knowing about before we actually do an evacuation.

Dr. Cummins:

Good point there. A couple of things let's keep in mind here. We're looking at the big plan. I'm recommending that you meet in the groups for which you're responsible and do this same kind of things and come up with the level of the detail we've got here.

Dr. David Parrott:

In response to that, I would add because of the really strong collaborative effort between System Real Estate and off-campus student services, we were able to locate housing and contracts for it did a wonderful job. I'm wondering if we shouldn't consider on an annual basis seeing if we can identify with contracts in place that are contingent upon (inaudible) so we don't have to put System Real Estate through the all the torture. I'd like to hear from System Real Estate on that.

Ms. Melody Meyer:

Yes, there needs to be training or some – prior to – we got involved not even the Monday after it was the Wednesday about noon. And by Friday night when we left, we had contracted 700 some odd beds for students, and 72 for houses, units, apartments, duplexes, whatever for faculty and staff. The remainder of the 800 was by Monday morning. And then we weren't told that it was moved from Tuesday until Monday. We were trying to contact people, you know, and get – y'all were already in the big meeting. No one had communicated to us that that meeting had been moved up a day. So, yeah, communication even when we're here and maybe earlier notification or getting us involved definite more training and more, yeah.

Mr. Golemo:

I really like there being a tier system. I'm from Illinois and, I don't know, it was interesting for me to be a part of this because especially after Gustav. Gustav was kind of like a head fake, and I noticed how I feel like – I have more of a kinship with some of the College Station people because I noticed how when this was coming through everybody because a hurricane expert. Oh, it's just a 2; oh, it's just a 5. Can I buy a vowel, please? And so I like the ideas of there being something very concise and having a way to get in contact with knowing at what point do I need to back up my computer, things like that because I – that's something I didn't realize until I got up here. When I

came up here with the students before there was a lot of stuff I wish I would have done. Any proof that I worked there in the two years before this would have been gone if it would have. And so that's just me.

Ms. Bigley:

One of the things I want to mention is that evacuation and relocation are clearly very different things. We did this, I believe two times, is that correct, David, before Ike as far as moving communications or working on moving the operation center up here. And that portion of it I think has worked exceedingly well as far as being able to get, get to things, get resources done so we can put messages out should we need to evacuate campus or close campus, either one. I think that's significant to remember in this that that worked very well.

Ms. Cassandra Boyd:

Just addressing the housing portion in relation to faculty and staff housing. I think an idea that we need to consider would be in terms of pre-storm or preplanning would be addressing an appropriate needs assessment form. That was something that was developed in College Station days after the hurricane, but it was something that could have been available before with accurate data or making sure that we were asking questions, who would need shelter? Who would need housing? Who had special needs? Or needed special accommodations for their families? And I think that information could have been available to Melody and her staff beforehand and I think that could have been connected to the communication components that Steve Conway was talking about a little bit earlier. Instead of afterwards conducting a phone banking system that was successful. But that was something that could have saved in terms of time in allocating resources if we had a more direct estimated amount. We would have had access housing that was researched by that staff.

Dr. Cummins:

Okay. Anyone else? Yes, sir.

Mr. Tim Coffey:

I'm with the General Counsel's Office and I also have supervisory authority over the System Real Estate office. If we knew what the evacuation plan was, nobody told us. If anybody in our offices knew, I didn't know. I don't think anybody in the System Real Estate office knew. So that communication was missing. We didn't even know when this came who was going to sign leases with the department. Was it apartments? Was it going to be the university system, the university, the students, the faculty? A decision was just made automatically that the system, because the system policy had to be the tenants on the leases. And then we realized that we don't have any kind of agreement with students. We're going to allow students to move into space we've leased, but we don't have any obligation of a student to follow the rules, to keep the place clean, to leave it clean. And we didn't want to – we came up with a contract and

we didn't want to give them a 25-page contract with all sorts of indemnities and all this stuff –

Dr. Cummins:

You actually did want to but you said that wouldn't work.

Mr. Coffey:

Still would like to. So that the concept came up very quickly. We didn't have much time. Was to try to come up with a one-page document that had the most important things in it. Who are they? Where are they? What unit are they in? They'll follow these rules. Sign right here. And then we did the same thing with faculty. One of them ended up being a page and a half. I can't remember. But we tried. There was nothing in the tank. You know, we just quickly had to come up with something. So I think going forward, we're going to need, you know, some plan for having the contractual relationships that we're going to have with the students and with faculty when they move into housing that we are ultimately responsible for. And of course we also, this may come up later, we also – every apartment or unit that we found, of course, is different. Their amenities are different. Some students, when you're talking cost fairness, were getting free internet, a pool and all these other things. And some of these other students were luckily to have air conditioning. We had to go to with what may not have been the nicest facilities for some of the students. And, of course, the students that moved into lesser units were anxious to get into the nicer units and so they started moving around and we didn't know. In fact to this day I think there may still be some question as to where are some of them? Do we actually have a contract with every one of them? We may have a contract with them to be in Reveille Ranch, but they're over at the Plaza somewhere. So the communication issue there, contractual relationships, and how we handle that.

Dr. Cummins:

Some kind of database to track students.

Mr. Coffey:

Frankly, I think – I'm hoping that based on experience we can revise that contract so that it will actually be 20 pages. But it will – we don't have, as far as I know, Melody was telling me one of the issues that came up last week was the students were moving out. They're moving out earlier than our lease. Our lease runs to the end of the month but we need the students out before that, but we don't really have anything to tell them they have to be out. Little things like that just need to be incorporated in that.

Ms. Meyer:

The unfurnished apartments that we moved furniture in, the university would like to move the furniture out before we're out for the holiday break. Well, we have a lease through the end of the year and the students, I guess, think they can stay in through the

end of the year. We didn't make any arrangements to tell them they needed to be out ahead of time. This didn't come up, so that's something we need to think about it.

Dr. Cummins:

Definitely is in the detail.

Mr. Coffey:

One last comment on that. A lot of the students didn't realize, I guess, that the Office of General Counsel doesn't represent the students. So when they're having these problems in Galveston with their landlords, we really can't help them. So what we ended up doing with Rodney's help and some others, we ended up just putting on the Galveston web page some general statements about what Texas law is when you have damage to your apartment. I don't know what the solution to that is, but some of the students were having to hire attorneys or their parents attorneys and they started calling the apartments and we had issues like that.

Dr. Cummins:

We're off the track just a tad. We're talking about the pre-work that could be done in general terms.

Mr. David Morrison:

I work with the Office of Facilities Coordination here at A&M and I also work in the General Services Complex building, which is the building that was identified through kind of an informal/formal agreement executed, I don't know, what, about two years ago? As the location for Galveston staff to initially come in the event of, as in Karen's case, having to set up the communications center or in the event of a minor evacuation of the campus. And as such, I was involved with some of the pre discussion about what's going to happen and also became the discussion about what's going to happen and also because the recipient of a lot of phone calls with regard to activities that were being executed at Galveston in order to bring students here and in order to bring staff here. But that no one here seemed to be aware of what their role was in helping to accomplish that activity. And so saying that, I would say – I would echo the communication aspect of what people have brought up right now. There was a plan in place at Galveston. There was a plan in place for continuity of operations to bring Galveston to Texas A&M University. There was no plan in place to let Texas A&M University folks that were going to be doing certain things know what it was they were expected to do, in my opinion.

Dr Cummins:

That's a valid concern. Love to help you, what am I supposed to do?

Dr. McGonagle:

One thing Steve Conway and I talked with (inaudible) spoke with us yesterday and Steve being a strategist had a great analogy of this. Strategically if we had a solid

plan and everyone had contact with College Station. But given the scope of what we had to execute, tactically that would be practical to try to implement or tabletop. But tactically on David and I's side, we met several times and (inaudible) gave us a little wake-up call on that as far as drilling down beyond just he and I working together on providing space for Karen and Dr. Loftin and Rodney and so forth to come up and work for a couple of weeks and go back. So this is the tactical side of the strategic aspect of that plan.

Dr. Cummins:

Another comment?

Dr. Cepeda:

One of the things that helped a lot were those professors or faculty who already had contact here at Texas A&M. So in some departments, because they worked very closely with those faculty, they pretty much had already set themselves up here by the time we started meeting and trying to figure out where we were going to put them. So there may be other faculty members who could identify departments here in our campus that they have some kind of relationship with them to engage in to getting to know these faculty and have more contact because it did make it hard – a big difference.

Dr. Cummins:

Okay. Anything else? This is still pre work. A couple of comments here, if I could get in terms of the lockdown protocols, actually gathering data. Dr. Loftin mentioned you knew where everyone—you knew where they were? Did you actually now where they were? Did everyone get into the database.

Ms. Bigley:

No, not everyone got into database. It is – there's no mechanism for making sure that everyone does that before they leave. What we do is throughout the course of the evacuation process was send out reminders through our E2 Campus, which is equivalent of Code Maroon here in College Station to notify people that they needed to make that change. Because it was such a lengthy even, we also had to send out notifications to remind if they moved locations to go back in and enter their new data. Some people evacuated somewhere and were there for two or three nights and after that had to find another place to stay. So that – it really evolved as the storm progressed and this even progressed.

Dr. Cummins:

Any other comments?

Dr. McGonagle:

One other thing that came out of our meeting last week in some departments on our campus have it and some don't. That's master service agreements with vendors in advance of the storm or even now really is a good time to start doing that. For example,

we had a contract with a disaster recovery firm to bring in dehumidifiers and generators and so forth and that was well established last year. They fell through on it – not fell through, but they just didn't perform very well, which is a whole other animal and we shifted gears and true aggie fashion made it work. But having those type of contracts in place eliminates the procurement issues that you run up against post hurricane. I know Donna in dining services mentioned that. And even on the ship we had to go back and get a contract for the operation of the ship for a short period of time that had to be put in place after the fact instead of beforehand. So our departments on campus and maybe even some up here that would be impacted by our coming up here would want to look at a state-certified or state-procured master contract on various services that they would use. The governor relaxing some of the procurement requirements helped a lot as we moved forward because they moved pretty quick afterwards. That was a great point that was brought up last week.

Ms. Lee:

I have an HR comment that I think would fall under this category, and I'm not really sure what the solution is but I can describe what I think the problem. I think there is no set of true expectations administrative expectations or employee expectations as to where they needed to be after the storm. Here or there? When it's just a three-day evacuation and you go back to Galveston it's real clear everybody understands what that is. When departments may need to be split and some folks might be considered essential in Galveston and some others may be essential in College Station, could that be predefined to some extent? I realize someone may – some particular circumstances may preclude someone from really fulfilling being an essential personnel, but some cities or municipalities have that definition. And we actually have that, College Station has that as well, for those short-lived disasters, but this one I think we can term as a longer-lived situation and employees don't know they're expected to relocate here or commute here and do what they need to do that's considered essential here as opposed to Galveston.

Dr. Cummins:

Any other comments on pre work? You have been sitting for an hour and a half. Would you like to take a nine-minute break and then we'll reconvene and spring to the finish?

(Recess taken from 2:51 to 3:01pm)

Dr. Cummins:

As we reconvene here, the next topic – we've already covered some of the things but we're talking specifically about the relocation of the students here. Let's begin with course continuation. We've got three students in here. Identify yourselves. Hands up. We're going to get some students input here in just a few minutes in terms of course continuation. So those of you that were working with scheduling, et cetera. I'm interested in what you've got to say about how the plan worked or things that we need to consider for the plan.

Mr. Carter:

Our part in the relocation or my office's part, which was handled by Donna and Andy here, were helping to relocate classrooms and lab spaces as best we could for the Galveston sections. And of course we worked very close with Dan and Cheryl and Truman in that regard. One of the problems that we ran into quickly and, of course, it's a no-brainer to say this that had we taught the classes on the time patterns that we offered here on our campus, we would have been able to fill a lot of the sections. But of course because of the consequences of the faculty just driving up one day or two day, we had to make shifts and teach classes in three hours. And so that limited very much the amount of available classroom space that we have on our inventory to put these courses in. So consequently Donna and Andy went off campus and contacted a lot of the churches and agencies and many of them were very, very helpful in giving us their classrooms. I was disappointed and it's something we will have to look at internally here because it had nothing to do with your campus, your people, but we ran into some reluctance from some of our academic departments and agencies located here in Bryan/College Station to make available empty space in a timely fashion. And that cause some problems on our part. But I think overall given the breadth of what had to be done and the short period of time that we had to do it in, I think everything worked fairly well.

Dr. Cummins:

Course continuation. Donna, do you want to say anything about schedule groups?

Mr. Armstrong:

I was going to mention some things that we did prior to Wednesday at noon when we found out they were coming is that Monday we did take a look at all of the degree candidates that had applied for graduation, look at what courses they were taking and how we could facilitate some of those up here. We also did a check on our inventory to see what rooms we did have available to move those courses over. And something we were talking about as far as recordkeeping is that the error that we made was that we thought that maybe half would show up. When we got 91 percent, by the time we realized it, we should have moved everyone record wise to main campus and then backed those out that shouldn't – that didn't come. That didn't show up. The nine percent. That would have been a lot easier on recordkeeping.

Dr. Cummins:

What did you do?

Mr. Armstrong:

We moved them all. By hand. And it took the better part of that weekend to move all of the to the correct section that we had set up to show records that they were here at the College Station campus.

Mr. Carter:

Some of the problems that Donna and Andy experienced was something that was mentioned earlier about some of the faculty on y'all's campus with housing campus that had close contact with departments and faculties up here and they made their own internal arrangements about teaching labs and stuff like that. And had we known some of that in advance it would have caused less confusion and us trying to find space and they already had space and things like that. But I just assume things are going to happen like this. But it worked out. I mean, we got the kids in class and it worked out.

Dr. Lang:

I think there is another guiding principle here that needs to go into the plan and that was we had a fundamental idea that students would continue with the faculty member that they started with. That guiding principle drove how we built the schedules, that there were no conflicts, that we did reregister the students in an open format. Andy is exactly right. We would have had that assumption no matter what because we underestimated how many students would come. If I would have used a different model I would have had the wrong model there, too, because I didn't have enough space. But keeping the faculty member with the students they started with was paramount. The other thing I think we need to set some guidelines for are the distance education courses and those that we shift to electronic format with the course continuation that we just need to do some work on that. To set down which ones are going to convert and which are not good courses to convert. They didn't fit right or they weren't far enough along.

Mr. Conway:

We have a process in place for approving distance courses where it goes up to the department head and then up. We waived that process. In retrospect that was a mistake. We should have kept that process in place and had those delegated to the faculty without some review. Faculty who hadn't done distance for any of you that had, it's a whole different animal and, very bluntly, they were over their head in deeper water than they realized fairly quickly. Just because they didn't understand what they were getting into when they said that. And I think some of the department heads are much more aware of that and would have been able to counsel them and work with them for a more appropriate balance or more appropriate educational format.

Dr. Montelongo:

And I think it went along the comment of it there is some kind of training as part of hurricane relocation plane that if there are faculty that may be interested in doing online courses, that that be part of some kind of training component. That if you're teaching a traditional class at the moment, you know, if you think that you may do an online course to have that training already happening prior to the relocation. So that way some of the issues technology wise or course preparation wise may already be known rather than as they're going along.

Dr. Rowe:

I think we should go a step further than that and I think we should incorporate in Galveston in our pre-fall semester training period with the faculty the realization that this is going to happen and that they – the new faculty and the old faculty have to incorporate from the beginning the possibility that they may have to teach and teaching here. And I think – I think we need to provide that with the training that we give the faculty that week before school starts. And I think we in Galveston have to incorporate that coming fall just because we know this is going to happen every ten years, 20 years. Who knows? A hundred years?

Dr. Cummins:

Other points of course continuation?

Mr. Martyn Gunn:

I'd like to follow up on what Donna was saying about the paramount idea we had was to keep the students together with the faculty member which is why we went to the three-hour class periods which caused such a problem with Don and his people. I would like to take this opportunity between hurricane seasons to exam how important that is to the students. Is that really important? They are going through an emotional strain, as well to the evacuation. Maybe it is important that we do this and maybe it isn't, but I'd like to get some idea about that. Because it would certainly make it a lot easier to do our regular class schedules, one hour sessions.

Dr. Cummins:

Go ahead.

Mr. Mike Spiers:

I'm the Student Body President down in Galveston and kind of to respond to that, one thing that I would think you need to look at is the course and then if – really if the professor is vital is keeping the professor with that group of students really vital to the students for that class. Because I can tell you some classes it doesn't matter if you keep them with the same professor, some classes it does. It's more along the lines of an individual basis. And that's kind of what you have to assess as far that that. And that might be hard because that changes, too, with student opinion. And student opinion kind of guides that. Kind of also just so y'all know some of the concerns that I have heard about as far as classes go from the students, first of all, Donna, let me ask you this. Was there any trying to get around having Saturday and Sunday classes the way there were? No? That was one major concern I did hear. I think students understood but it's just having Saturday classes, Saturday morning classes.

Dr. Lang:

What? You didn't like that part?

Mr. Spiers:

There were also other issues that are addressed. I don't think were. I don't think were thought about, as far as that goes. Think about students who had purchased football tickets and they end up getting Saturday morning class? They can't go to anymore football games. That's a lot of money, especially for students who just lost a lot of things. So as far as the online courses go, I think y'all kind of hit the nail on the head when it comes to having professors know how to teach an online course. Or even TTVN. That was another problem that I heard. A lot of students had problems with the same professor, you're interacting with that professor, although the class is completely different and it's almost being taught a different way because it's through, you know, a TV. It is hard for a student to sit there and watch a TV in a dark room for three hours sometimes about a boring subject. So I got to tell you, I was in classes like that where 90 percent of the class had to leave because a professor couldn't correlate the – or you know, get the information out to the students in a way that kept them, you know, focused on it. Also one last little point is to kind of think about what courses can be taught online. Fully online. In my major, Maritime Administration, and I've talked to a lot of students who have had – who were doing well – like the best example I can give you is accounting. I mean, for a majority of MARA students I have interacted with and talked to accounting is a class they cannot take online. They did well because they had a teacher explaining it to them, you know, before the storm. And then once they once they saw it online, they just see the material, no one to explain it to them and, you know, you're kind of out of luck there. And so that's another things that can be addressed as far as really looking at what courses can actually be taught online and what course need a teacher there.

Ms. Betsy Bremer:

I think students are concerned with what classes they have to (inaudible) but the two and a half hour lectures were a challenge because that is a lot of information to receive in a big chunk. And a course like organic chemistry I talked to a lot of friends in that course and they said they really struggled with absorbing that amount of information and only having it once a week and not being able to re-enforce it and getting it in one big chunk. They would be more concerned with having it in a more feasible course layout than maybe keeping the same professor.

Ms. Kelly Borden:

Another point to look at is most of our labs were late at night. Both of my labs were from went to 10:00 o'clock that night. And then our next class the next day was at 8:00am and the fact we only have class once a week we had an exam almost every other week and so you have labs late at night and go right into an exam the next morning at 8:00am. That was definitely a difficult challenge for a lot of students.

Ms. Bremer:

I also found a lot of the lab spaces – I know this was a big challenge – were inappropriate. My microbiology lab was originally places in a conference room. And we need microscopes and Bunsen burners and so we couldn't function in that space. So

within the departments just working with them finding appropriate spaces and large enough spaces to accommodate the lab situation.

Dr. Loftin:

Marty's point is very well taken and I appreciate the student comments, as well. One thing to remember back to Mike's point. It depends. Hurricane hit us in August or October or even November. And so don't forget the time factor. It may matter when the storm happens how you react to it. If the classes haven't even started yet, you have a different option perhaps than if you're now into October. We were two weeks into semester when this happened. That's a singular type of situation, but it may be very different next time.

Mr. Taylor:

International Student Services. Just to add a little bit of complication with international students is that certain visa categories cannot take more than 3 credit hours of distant learning courses. That's controlled by Homeland Security regulations.

Dr. Lang:

And I think – I think everyone at College Station is going to agree with this, because I think your movement on this is no surprise. One of the preparatory things that will help immensely is that College Station needs a centralized repository of your facilities and spaces.

Mr. Carter:

May I add to that, please?

Dr. Lang:

I thought I would hear some hear, hears across the room there. It was one of the main issues. Everything here is so compartmentalized and so territorial. And Donna Chester, I mean, you've got gold stars everyone from here because she was pivotal to making this happen. Without her, everything went to a standstill. So you've got the system is not in place here for your own use as well as us moving in and out or even trying to identify the proctors for different buildings and different floors and who the contact person is very cumbersome on this campus.

Mr. Carter:

We are at the process of reviewing bids for a software scheduling system. Campus-wide software scheduling system. Had we had it in place when all this storm hit and y'all had moved up here, I think it would have made our job a lot easier in helping y'all. We hope we will have it in place next year if y'all come back.

Ms. Cynthia Hernandez:

And this is a little bit related in that we didn't begin the transition of students to our campus. One of the things we were trying to wait on was the building of the class

schedules. And I think one of the things that we realized is that perhaps that transition doesn't have to wait until those schedules were built. I think they actually started some of the housing assignments and all of that even without the schedules being fully built. So that's just something to look at. Because what that did is when we were waiting for the schedules to be built, that compressed the amount of time that we had to really focus on some of these other transition issues which created longer lines and not enough time to process the students to get them into housing and get them their meal plans, to get them their parking permits and those types of things. So it's just something to look at. The question is do the students want to look at their schedules before they make the decision to come, or do they want to look at their housing before they make the decision to come. And we try to get those together at the same time, so I don't think it's dependents we don't need to wait on that transition dependent on class schedules.

Mr. David Morrison:

This kind of ties back to pre storm and it also deals with relocation not only of the students but also the faculty. For lack of a better term, we were fortunate this time in that there was space that was basically sitting unused on campus, which is an aberrant event that allowed us to move faculty in for office spaces, move administrative staff in for office spaces, to move students in for classrooms and lab section sand those things. This was an aberrant case. For the next three years, given the fact that the memorial students center operations are going to be closed down, that space is going away to a large extent and so any pre planning that takes place from this point forward needs to account for there is going to be a dirth, a lack of space at this campus to do some of the things that we did relatively easily this time, even though it wasn't all that terribly easy. It was still relatively easy compared to what we might face in the future.

Dr. Cummins:

Okay. Continuation of courses. Any other comments on that?

Mr. Golemo:

I know this isn't my bowl of soup, but is there any way we can classify ahead of time the courses? Like what courses would lend themselves better to be TCN or all that stuff. Is there any way that we can do that in the beginning of the semester or in the catalog ahead of time? If the course is – I mean, the professors and departments would know best, wouldn't they? So I mean, I don't know. Is there any way we can maybe have that? I mean, that sounds like if it's a case-by-case basis. Is there any way we can make that case ahead of time?

Dr. Rowe:

One of the things we could consider, we're a very specialized campus but we are a branch campus of this campus. So we have all the same core curriculum. And if ahead of time we were to position ourselves department by department course by course with allies up here, people down, you know, our instructors in Galveston who could look to equivalent people up here and say could you incorporate and the department heads up

here could say who among you would be willing to have a dozen Sea Aggies in your course with visiting professor sitting in the back to help out. Something like that. So if you figure that even if about half of our courses are core curriculum courses, we could perhaps do some of that. The upper division courses, you know, the reason we are what we are, those are all specialized courses. So those really have to be done by our folks somewhere. So what Neal is suggesting is something we can think about. It's not something we can promise. But we can look into that.

Mr. Conway:

One of my experience as a faculty member teaching courses that I've incorporated for distance and in fact I've taught my course from distance to a small group of students, it 's not the courses, it's the preparation that you do. It is probably more prep to build a distance course than it is to build a course (inaudible) even if it's the same course. I've spent a lot of my time doing it and still it's not fully distance. So it's not so much the course but has that prep work been done? And to follow up with what gill said earlier, if you move to more of a hybrid model where you're using soe of these technologies in a face-to-face course, it's much easier to transition to a fully distance course or even a hybrid course. So it became a hybrid course and it eased the impact on the students to some degree. At the same time, they had some continuity because they had activities they did in the off week to try to balance the continuity and, you know, keeping up with it.

Dr. Lang:

I think it kind of goes back to the guiding principles are what's important. The tactics and the model is going to have to be developed depending on the timing of the storm and some of those issues. We looked at a simulation but even without students missing two weeks, when you take would weeks out of the middle of calculus and physics and chemistry, I don't know that these students could have survived assimilating them into the current classes in College Station. Katrina where you had a different model where you registered them internally here was at the very beginning of the semester and those students could get in fast enough and get going with those faculty members. That's very different than being 18 days in, losing two weeks and now you're in your fourth or fifth week of the term. If we were hit in November, the model that we would implemented this semester might have even looked very different than what we had. I think those tactics are really going to be things that we're still going to have to make the decision at the time and the intensity of the storm and some of those decisions are going to still depend on the leadership in place at the time that it happens.

Mr. Bob S:

I was teaching one class in Galveston. One professor couldn't relocate up here (inaudible) started in Galveston. I experienced that the class started in Galveston with the other professor struggled much more. I think it can make a difference; it does make a difference where the students get the information even though it was the same course,

the professor used a different textbook. There are going to be a lot of issues trying to integrate that class once it's already started.

Dr. Cepeda:

One of the things I think was out of this scheduling of these course was that we didn't know the availability of the faculty could come over and whether they wanted to stay here two or three days, come back, commute. There are different models we were talking about and I think if faculty were not willing to commute early on because they wanted to understand what this neutral cost meant and as well as they wanted to see where they would be living and the what would the conditions be. And so that was hard to handle. So I think that I go back to what was said, anything that we can sort of define beforehand so that less unknowns is time we have – we are ahead of time and that's a good thing.

Dr. Cummins:

Anything else about continuation of courses?

Ms. Duran:

I think one thing that would be helpful because obviously this is somebody said a logistics nightmare. Doing a survey at the beginning of every semester and its very easy. You can do it on google docs. You go to form, you create a survey, you calculate the statistics and you survey your students and you survey the faculty in case this happens. Then you have some sort of percentage and you have a number. Because y'all mentioned that y'all were surprised at the number of students that came. If you incorporate that into the orientation – the new student orientation because they're Sea Aggies. They already know we're on an island, there's potential for a hurricane. If you do those surveys at a new students conference and you survey your faculty periodically then you know some sort of numbers, hey, if we don't return to campus, this is the percentage of people in the fall semester that said they would go over they would commute. So if you do those surveys prior, you're already implanting in the mind of that faculty member and that students there's going to be this possibility and of course you follow it up again with departmental training.

Mr. Mike Spiers:

Norma, I love you, but I've got to make a comment about that. I don't think that doing a survey is the best way to do it because there's just too many variables that after a hurricane that allows or that make a student make that decision. I mean, a student doesn't know if they're going to lose everything they own or not and that had a lot to do with whether or not students came back. A lot of different variables and situations that determine whether a student can come back or not. A survey really wouldn't be a very accurate form to assess.

Mr. Carter:

Donna, has anything been done about the 160 students that did not return? Did y'all do anything to find out why they didn't return at all? Is there something we could have done that would have got more of them.

Dr. Lang:

No, actually we personally contacted every single A&M Galveston student by phone or we had personal contact with every student, and in almost all of those cases it was in surmountable personal difficulties, loss. For some it was trauma. They might have been out of state. They just couldn't handle the whole process of things that happened. The other thing is right now there is an assessment survey that is up that Mark Troy from (inaudible) helped put up. And I think we've got about 450 responses so far where the students are responding, so that's going to give us a significant amount of data, as well, after this.

Ms. Boyd:

I just wanted to inquire in terms of having a student development perspective and talking about retention, I just wanted to ask the students how they felt unifying – being unified with fellow peers if that helped them in terms of their academics and being retained to continue in the spring semester.

(Mr. Speers asked a question I could not hear.)

Ms. Boyd:

In terms of if you have the option of being assimilated with college (inaudible) or if you have the opportunity based on your experience in having classes that were with students that you started the semester with.

Mr. Mike Speers:

That – I mean, really that, I think, is a little – it's too hard to kind of answer that question because there's – there's just – I think it goes by a situation and it kind of to answer that you have to look at such a broad answer that it really doesn't clarify anything. I mean, you got to think about – you know, I can think about different classes like freshman, sophomores, freshman maybe after two weeks of class maybe they can assimilate a little better in College Station than someone who's been with the same students for four years. The classes – I mean, different classes assimilating or it could be different. It could not. And that could effect – I mean, there's too many factors to be able to narrowly define that.

Ms. Bremer:

I think we definitely kept our identity as Sea Aggies, because we did keep the same classes and we were living with people in groups. I don't think there was any time that you had to really mix with College Station people. And I think he's right. The freshman – if we weren't forced to. So what I'm trying to say. It's like you didn't have classmates that were College Station students. I think like even freshman hadn't formed

their groups in Galveston yet and they did get to know more people. But juniors and seniors, they've got their friends, they knew who they were going to hang out with. They did what they were going to – what they've already done just in a new setting.

Dr. Cummins:

Us and them.

Ms. Bremer:

At point it did seem like that.

Dr. Cummins:

If I could get a few comments. We've got a lot of comments on and off campus housing. Any comments on on campus housing?

Mr. Shallenberger:

I remember sitting in the GSC and we're talking about relocating – broad point. You know when we were sitting in the GSC we were going to relocate and, okay, we're going to relocate and that question went back to what Don said how many? Two things came to mind: how many and how much? How many students are going to relocate and how much is it going to cost? Data points were extremely are extremely important. Now we have one. We have one data point. That's better than we had three months ago to know what might we expect to get or expect to need in the future. So that's kind of a broad comment. I'd like to kind of hear from some of the other experts that were in the trenches.

Dr. Cummins:

Colonel Groves, do you want to talk about housing?

Col. Groves:

Ron might talk to you a little bit better in the bigger picture of housing.

Dr. Cummins:

Is anyone here from housing?

Mr. Jeff Wilson:

Ron had to leave. I can talk to some of the issues that we've specifically addressed with the on campus housing. And, Grant, hit it right on the head. The expectation was a much smaller crowd. We did not think anywhere near 91 percent was going to come back to College Station. We were under the impression it might be closer to 25 or 30 percent. Kind of need to paint the perfect storm we had on campus, too. Admissions had gone up. Enrollment had gone u. and we were at 99-plus percentile with on-campus housing to begin with. We already had about 28 students contemporary assignments going into Galveston. So when we brought in (inaudible) we really stretched our capacity to do this. So there were lots of lessons learned. We were not

anticipating, one, that big a crowd or for that long period. We thought it was more of an evacuation versus relocation. Big difference. Sustainability, we were doing it for (inaudible).

Mr. Todd Sutherland:

The housing folks up here were phenomenal I'm sure that extends to a number of you in the departments. When we went through and started to assign, I think having the realization we followed certain philosophies, as well. We saw the on campus as being the premier situation. I know some folks went out to Reveille Ranch and I get my whole apartment with brand new volleyball court. We ran into some real challenges with some of the students saying, wait a second. We're stuck in a closet with a cot and they started switching on us. That really became a challenge. We talked about trying to keep the Sea Aggie identity. We tried to follow the philosophy of grouping and we probably used some of the properties that probably weren't as nice versus sprinkling them all out. In keeping the Sea Aggie community (inaudible) out of Facebook and look at the 500 freshman who were over at Melrose Place without a lot of supervision there were a lot of challenges.

Dr. David Parrott:

Just to state some obvious things, obviously the type – as our real estate folks told us, the types of property that were available, they were new to the market and hadn't been rented yet or they weren't as attractive to the students and were available. So that gave us nothing in that middle. We had brand new properties and older properties. I think that to the credit of the Galveston students, the mindset while they were waiting to get housing assigned and after they got housing assigned was marvelous with a few notable exceptions. And its hard to communicate to the parents of some of those students that obviously the reason why those properties were available is what I described. So a couple of people wondered (inaudible) our housing counterparts much more that our College Station counterparts dealt with. It is a general feeling sometimes that somebody got placed for special reasons rather than by happenstance. And it was kind of hard to work through that with some folks. Don't have a solution, just one of those problems (inaudible).

Mr. Jeff Wilson:

I'll tell you the on campus had the same issues. There were places on campus that weren't being used for the same reason. He other places that were considered more desirable. Some of the places we had available were just what was left.

Col. Groves:

From one standpoint we talked about one data set. In the housing data set you can expand what you've got to some degree useful by going back to the Galveston students that came here and say given that this happened before school started when it happened at the first of October at the first of November, would you have chosen to go to Texas A&M? And you can develop some more reasonable data points. A lot of this

stuff you can't survey very well exactly for the reason you said. There are so many contingencies and so many variables. But I think that one you probably could. If the storm was the same, if the university result was the same, would you go to Texas A&M in those conditions? So you can develop a little bit of better planning and information, but you're right when there's not much available, there's not much you can do.

Mr. Shallenberger:

One of the things that I thought was done well, you know, we only had a certain number of available beds on campus. And we had a number of beds available off campus. And we had to determine who was going to get the on campus beds, whether that was within the Corps housing or in the non-reg housing up here. Fortunately we had given that forethought and Tod and Neal and some other folks, I'm sure, were involved with trying to make that work. That may be something that we want to reevaluate. We may decide that was the way to go. And of course some of that's going to be predicated on in the future what might be available if College Station is at 105 percent. That's a dramatically different issue than 99 percent. So that's – that was a positive thing that was – that we gave that some thought to see who was going to have priority.

Dr. Parrott:

One thing to note, we put out a call for (inaudible) give up space in the community and homes and we got a pretty significant response. That was not attractive to most students. Most students chose not to go live in somebody else's house for a variety of reasons.

Mr. Golemo:

As a matter of fact I'll tell you just this highly anecdotal. I spoke with more than a few people who they were willing to come up here and pay almost twice the rent that they were paying in Galveston, which I'm sure wasn't real cheap, because they were afraid they were going to get stuck in some weird guy's garage.

Dr. David Parrott:

You should have told them Grant was not going to rent.

Dr. McGonagle:

Grant's garage?

Mr. Golemo:

It was great. It was really, really great from standpoint, but they just got wind of that. I don't know, a lot of that might come back to some of the communication that we gave. I think we did excellent under the circumstances, but I noticed very much and – man, I love – I got some really nice things said about me and us about the housing thing. I think we made some big mistakes. We had a failure of imagination on some places. But I just – I was overwhelmed with when we don't give out enough information, even if it's just giving them updates in where we are in our decision making process. When

we don't, these students make up their own. They fill that vacuum of information with – I mean, I heard crazy things. And people talking – literally I heard that more than once, some weird guy's garage. You know, like I don't want to be – I don't know. So I think – I'm sorry I had a really weird visual of Grant.

Mr. Shallenberger:

I don't have a garage.

Dr. McGonagle:

Just weird.

Mr. Golemo:

I think that in so far as what we did with the housing, I think that what – we did what we could. And I think one thing that we could do better would be to go back and come up with a philosophy of priority of where we're going to put everybody and then assign ahead of time as many off campus people, as well. In the assembly we were making decisions right then and there, and we took two staff members doing that and I think that slowed things up a lot more. In making those assignments treating them as de facto off campus or de facto campus housing would have helped a lot.

Ms. Hernandez:

I just wanted to echo that. And one thing we talked about in the beginning was this notion of cost neutral, and that really did play into the housing decisions for students. Because we didn't have that defined, students were having a hard time making the final decision, do I want this place over here at 2818 place that's going to cost me so much a month versus being in the Plaza, which is going to cost so much a month. And because we couldn't answer what the university could supplement or was willing to supplement because nobody had those answers made it a little bit tougher. So going towards that definition would help a little bit.

Mr. Wilson:

I agree completely. Having folks in those buckets and that bucket may be defined based on how much they're paying for their current rent or for where they are would really help us out significantly. If you had folks that are used to staying Motel 6 versus the Marriott, if they're coming from the Marriott moving into the Motel 6, their expectations were problematic. Versus the other way around. We had some folks who weren't used to staying in air conditioned places that really got some really nice accommodations for the same cost that they were paying from where they came from. Big problem. Same issue happened on campus. So if there a way to differentiate those folks, what are what are you paying now versus what's the closest place we can put you in here in that price range.

Mr. Golemo:

The biggest complaint that I got again it's anecdotal, but I handled a few phone calls and the biggest complaint wasn't the size of the room, even though in comparison our residents halls are cavernous compared to they're just really big. That's one of the first things I noticed when I showed up on the campus. But we have all suited bathrooms. People freaked out when they saw community baths. They lost their minds. I went to Baylor and I lived in one of the smallest, oldest residential halls on campus – in fact it was the oldest residence hall on campus – and I shared a bathroom with nine other guys and they're some of my best friends to this day. And you now, I thought it was charming. I thought I was being charming. I said, you know, you get to know people when you have the same – (laughter). I saw people turn white so when I told them that. It was little things like that having expectations and things like that.

Dr. McClendon:

One of the things that we've clearly got to do in regard to on campus and off campus students is decide up front whether we're going to treat them all like students off campus students regarding how much were you paying in rent, have you filed for FEMA, and other things. But then we were checking it because we thought we needed it, but we didn't know ahead what to do with it nor did we have the personnel power to reconcile this person was or was not able to get out of their lease in Galveston and so what's our response to that? And what we were trying to do is be fair to the on-campus students who had paid us a fee and honor that and the off-campus students who had not paid a fee for housing. How do you reconcile that in the context of making sure that you have the personnel power to keep with the data and manage it and then go back and try to collect certain funds. Secondly thing I want to say to this, Leonard Ross, who is the owner of the Plaza Hotel, who was gracious enough in working with us on many issues that was related to housing. I wanted to give him an opportunity to offer any observations that he may have.

Mr. Leonard Ross:

You put me on the spot. Well, I'm taking it in at this point. I'm kind of gathering what everyone has to say. I think one of the things – well, keeping people together especially if they're coming from outside of College Station is very important wherever that may be. So if you can concentrate a large number of students that's better than when you can't. and if you have some supervision that's also good, especially when you're coming from a strange place, don't know anybody, don't know the environment. Parents get concerned, of course, depending on the age of the students. So that's an issue. I think in the long run one of the things I recently realized is when Texas A&M either built or acquired housing facilities, if they build the rooms large enough that are comfortable for two students but able to accommodate three students and they have on campus part of Texas A&M housing program at least a provision in the event of emergency that a third student might be put in their unit. Well, that could accommodate hundreds of students with no cost to Texas A&M because you've already got the rooms. So that's – I don't know if this is the group who is involved, but that's something to plan for in future perhaps.

Mr. Wilson:

We do have that plan, sir. Our modular halls all have that capacity. We made the conscious decision up front not to do that with our Galveston counterparts and part of it was to keep the Galveston students assimilating them with the College Station students.

Mr. Hearn:

But that's in a case where you've got a lot of students and sometimes it won't be as concentrated in a whole, you know, Galveston University.

Mr. Wilson:

I won't go counterpoint on that, sir, but we have to remember the Texas A&M students that's paying that tuition, too, and they're already in a capacity and their expectation is to (inaudible).

Mr. Mike Spiers:

Just kind of something to go along with that, you said you had that provision. Is there any way if this were to happen again that you could consider that going done but only for like freshman. Especially freshman who are living on campus and then got thrown into off campus. The reason I say so, sir, is because of the problem that happened over at –that has occurred over at Melrose or the District now that Todd hit on earlier. Freshman who were living on campus in Galveston got thrown to an off campus position with no supervision and they just ran wild. They ran wild all semester and then they're going to have to readjust to that again next spring. I know because I live over there. But is there any way that if this were to happen again you could provide that for, say, just freshman? At least freshman who are on campus?

Dr. David Parrott:

This is the third campus I've worked on and worked some capacity close to housing or students on campus and off campus. If you look at research and my own personal experience on tripling students, what you actually would be doing is having a tremendous negative effect on you retention rate. Students that are tripled leave in droves and don't come back. If that's the effect we want to have. And do I think there is a benefit to having particularly freshman on campus. When you triple them up, the environmental effect particularly for students today has such a negative impact on their experience in college they go away and don't come back.

Mr. Sutherland:

I agree whole heartily. In that situation I think you automatically end up putting the Sea Aggie as the odd man out in that situation. I think the Plaza and the – over at the district now were a God send. I think if we do this again we could use some of our leasing and control sanction, put in better structure to have them living in an extension of campus. We still have community leaders and still have control of those type of things

to help some of the people running wild but also some of the other stress and trauma and some of the – I think just with everything going on we had a tendency to get into that. But with so many things going on, we didn't have time to do it. Trying to get them in a group but really looking at some type of structure possibly taking our community to these folks and better supervising and keeping them together.

Mr. Wilson:

Going full circle back to you Mike. We did look at that. The freshman were the priority in trying to keep them in the community. We were also at an over capacity issue as Dr. Parrott pointed out. That tripling issue came a non issue very, very quickly as we were trying to keep them together.

Mr. Carter:

Donna, did you all say you all were David Bark was surveying your students up here or doing a survey? Is it to gather information like we're talking about, what was positive about academics, what was positive about housing and all these other things; what was negative so we can, you know, have that? Kids have a pretty good idea every once in a while.

Dr. Lang:

No, it's not a comprehensive. We did away with end of course evaluations because of the process wasn't going to work in the format we were in this semester, so this is an academic instrument. And it will gather quite a bit whether the student was on campus, instructors, the three-hour course format, the Saturday, the lab environments, their perception of quality. It won't address the housing issues or student life issues.

Dr. Parrott:

I think one of things we consider if we put a group of freshman off campus is to put a group of staff off campus with them. That may be something we want to consider whether it's practical –

Background:

I've been living with them, thank you, very much.

Dr. Parrott:

– we can relieve the pressure of putting three or four or – **(background talking)** -- and then also pay attention to people want to be together with a group that's similar to them. Keeping Sea Aggies together was probably important to them. We might want to add a little more staff.

Mr. Golemo:

That was one of the things we've actually already discussed. I lived on campus. It was wonderful that I was able to walk to work every day and things like that, but I was superfluous when it came to that. They were covered and that's one thing we had

definitely discussed with my supervisor. I probably should have been out at Melrose now that I think about it.

Dr. Parrott:

I think Grant should have been there.

Mr. Golemo:

We've got a garage for him. But absolutely you're – (laughter).

Dr. Cummins:

Last comment on housing then we're moving on.

Mr. Mike Speers:

I agree and I understand with what you said about three students per room, but one thing I don't think y'all have considered, too, is if you do add on like additional CLs and places like that, it also creates a job market that was really desperately needed by a lot of students. A lot of students needed jobs up here that they just could not get because people wouldn't hire them for two, three months. They counted on that revenue to support themselves and by increasing you amount of CLs, that kind of helps out students on that aspect.

Mr. Golemo:

Really two things I'd like to point out, one of them goes directly with that. I put five of my team leaders, we assimilated them right into staff positions as RAs because I wanted my most experienced ones and I wanted them to keep their jobs. And we didn't know at the time if we were going to be able to keep them or what their roles were going to be and I think that's something we fleshed out. And another thing, I think that a lot of the problems we had especially with assignments and a lot of the confusion is that we didn't know how many spaces like up until like game time we didn't know exactly how many spaces, exactly how many people were going to show up; and we were never able to make the commitment that we were going to be able to house them. You came up through us and you came up through that day and you sat in line for 18 hours or whatever it was. You were going to get housed. And I think a lot of people they freaked out and they did their own thing and that's where that vacuum of information comes in and I think that's where a big problem came from. In the future maybe if we can try to make more of a commitment, or if we would have known about the space at the Plaza earlier we could have done that. But making that commitment to students I think really would have helped out a lot if there was any way we could have done that.

Mr. Coffey:

Could I make one last comment? The fact is the university helped find a lot of apartments and, as you can imagine, at some point we ended up with less desirable places where you and I wouldn't want our children to be. And Mr. Ross stepped up with the Plaza Hotel. There were a lot of issues up front converting a hotel into a dormitory

for 300-something students. I don't remember the number exactly. A lot. A lot of students. And more importantly I think is don't forget a lot of these apartments were unfurnished. We didn't have any furniture so we had students and no furniture. Or apartments. And Mr. Ross, again, kind of reiterating what Rodney was saying offered furniture. And he had some furniture in his storage rooms and he provided furniture for a lot of these apartments that we would not have had. So in your future if Mr. Ross is not around when this happens again, we need to plan for furniture. Got to have beds, got to have drawers. Things like that.

Dr. Cummins:

Dining services. Anybody here from dining services? Talk to us about dining services. What worked, what do we need to work on?

Ms. Donna Van Duyn:

Dining services here at College Station totally allowed me to (inaudible) and create for our students here their own meal plans. That were not College Station meal plans, but they were similar. And I think by and large it worked very well and support from dining services.

Mr. Shallenberger:

One of the things we found kind of as we got into the semester is that because of student schedules, because of the rescheduling from the three times a week or one time a week that sometimes a student might not be on campus near the number of times they would have in Galveston. Instead of going on campus Monday, Wednesday, Friday – or, you know, Monday, Wednesday, Tuesday, Thursday, it was Monday, Thursday, and Friday or something like that. And so we did end up making – not a lot but we did end up making some accommodations for students whose schedules really just didn't make sense for them to have a meal plan that they didn't need. It was really the majority of those students were in the students contracted off campus space. I think the students on campus they probably ate more meals than they knew they had. They did well. I heard something last week somebody was using their meal plan at a rate of five meals a day. So but, you know, again, another appreciation, Sherry, as well as your crew just how smooth your transition was at least appearance wise it appeared smooth. I can't imagine the amount of work that went on behind the scenes to make it all happen.

Ms. Bremer:

I think the meal plan in large worked perfectly. At the transition we had what we needed. One thing I think got overlooked was students that didn't have a meal plan were placed in the Plaza that didn't have a kitchen. That was one place they would have had to purchase an additional meal plan or eat out or by meals for the entire semester.

Mr. Wilson:

The on campus meal plan worked well. The housing and meal plans were pretty much the same process. The off campus from what I got and I got a lot of e-mails the

expectation, I didn't have a meal plan at Galveston. I'm living on campus here. Do I get a meal plan at A&M? Going back to the cost neutral discussion, the expectation was if you didn't have one there, the expectation was you wouldn't get one here. Lots of dialogue over that. I don't have the capacity to cook where I'm at now. How does that work?

Mr. Shallenberger:

Our meal plans are cheap. They get a good value.

Ms. Van Duyn:

We did have a number of students purchase A&M College Station meal plans when they had not had meal plans in Galveston, and because they have so many options that seemed to be viable. If they were paying for meals or cooking there.

Mr. Wilson:

Again, I agree. But again, it was that expectation. That expectation it was free and when they told them not so much, it changed their expectations whether or not they were going to buy or not.

Dr. Cummins:

In the interest of time, I'm going to be a bit more assertive here. We need to move to relocation of faculty and staff. We really want to know about housing and some of those things. We'll move through this list here beginning with teaching materials and resources. We'll work our way down there. Those of you that were helping faculty get relocated.

Dr. Montelongo:

Kind of related to faculty as far as much like we're talking about. Like we're talking about housing relocation or the services we provide for housing, I think it's important to recognize the student's academic support as needed. IE my services, academic advancement, the writing center, and anything that is in relation to the teaching of the courses while we make this move that, you know, there's an understanding that to make sure those services are going to be in place, you know, day one and God bless the students learning center near College Station. They welcomed my staff with open arms and provided us tutor rooms. In fact our Galveston tutors tutored the College Station students up until last night. So I think it's important to make sure that those academic support services are discussed and that those that are associated with those services, including the Galveston folks, which I don't think – I mean, College Station folks I don't think they're in this room, are included in future discussions with us.

Ms. Lobaugh:

Just so we're taking notes, something to look at for future action is we – with the physical plant we recently received a call from a faculty member who evidently had acquired furnishings here and had set up housing and he had heard that we had trucks

coming this week and next week to relocate textbooks and lab equipment and wanted to get scheduled to have his furnishing picked up from his apartment to move back to where he was going to be housed on the island.

Dr. McGonagle:

That he didn't pay for?

Ms. Lobaugh:

Yes. Here again, expectations. We're coming to get the equipment and textbooks and stuff, but we're not set up to move everybody's homes.

Dr. Rowe:

When is that? When is that?

Dr. McGonagle:

We have an attorney here. We're going to need one.

Dr. Cummins:

More comments about this continuation. Research? Some of those concerns you've heard things that need to be taken into account.

Dr. Rowe:

I think all of these things were handled quite well. All of them need written down plans ahead of time. And I think this goes back to fall semester indoctrination of the faculty about what to expect. And once we get these things written down, and if things like continuation and research, increasing the contact between like departments down there and up here. If anything that has happened about this is that we now have a lot more communication between researchers there and researchers here. And I think if we emphasize that in the future, most of these things will be worked out. I'm still a little concerned about the housing in that I'm not so sure that with the faculty and staff it might be just as well to give them a housing allowance and turn them loose on the real estate industry. There's a thriving real estate industry here. That would allow people to meet their specific needs. I'm delighted with what was provided for me, but it's too much. I don't need as much as what I have. I think everybody among those staff and the faculty might feel the same way. At least perhaps given a choice.

Dr. Cummins:

In terms of a plan that should be examined --

Dr. Rowe:

As a possibility, an alternative.

Ms. Boyd:

In response to the contracted housing, I think it kind of also reflects the College Station community and what was available and I think at that time in the semester it was broken down into again what were those newer accommodations and what were those older markets. And I think everyone is correct that echoed the expectations. And so in terms of what were those expectations and again what were the priority of those that needed in reflection to their household. And also those that required more permanent housing, what was the expectation of their job performance in comparison to those that needed to be available in College Station to teach or transition students in comparison to those that could commute or work from home who were writing or doing research in different locations. So I think that also had a number of housing assignments in terms of making that request for faculty and staff.

Ms. Duran:

In working with faculty and staff, I think we have to keep in mind, too, that there were staff members and faculty members that had pregnant wives. So when, you know, there's no control over what the housing that's contracted, so there's going to be a level of shock, there's going to be this emotional roller coaster and whoever deals with that part of the housing for faculty and staff has to be patient because you're going to have people come in – and I have many, many stories of people coming in, I mean, literally crying after they saw a property and granted the housing was contracted under the circumstances, but whoever is – whoever has that job has to have some experience in outreach and community and understanding and if you have a background in counseling that helps. But we literally I mean I dealt – Cassandra not as much, but I dealt literally with people crying right in front of me because they did not like the house they were in at all whatsoever. So you have to keep in mind if someone has a disability, if the woman is pregnant, when is she due, where are they going to live? You have to remember to keep that in mind, that emotional aspect changes everything no matter house you put them in because their expectation is they want to be somewhere like they were in Galveston and that's just not going to happen.

Ms. Taryn Cornelius:

We need to outline what the expectations are for houses. I'm not living somewhere that I would have ever chosen to live on my own for a variety of reason, however, I live there, I have a roof over my head, I have a utilities that are paid for and the school supplied air mattresses. Is that comfortable to sleep on for three months? No. but if you're that upset about it I acquired furniture because I talked to a church and they said, here, we don't need this. Borrow this. I think we really need to outline what the expectations are for what we're going to do with faculty and staff. Because they're going to be people who are going to want what they have. I would love to have what I had in Galveston. I would have loved to have a yard for my dogs. However, you have to deal with that. The university needs to be able to put their foot down and say, be happy with what you have or you can go and pay this out of pocket.

Dr. McClendon:

We took a bath on this issue financially. Because early on we asked people whether they needed a location and that the university would provide it, it would be cost neutral to them. A number of individuals needed a place to live for the duration of the time that we were going to be here. But either because their personal situations changed in Galveston where their homes may have been livable or they chose not to accept what we have. We have 40, 50 units that have gone – that we're paying for that are vacant. So whether it's stipend or whether it's contracted, there has to be some sort of an agreement that this is what it is and we're out of money now. That bill is, you know, is due.

Dr. Cummins:

So in the plan that obviously has to be taken into account.

Ms. Boyd:

Also in terms of reflection this the relocation assignment for faculty and staff happened before the students arrived on campus. It was still a competitive market in terms of the College Station community also looking for available housing at the beginning of the semester. Then it was the urgency of having faculty and staff be placed. And I remember the phrase of faculty and staff need to be here yesterday, so that the students can then be assigned housing. So that was another part of the plan in terms of the timetable. There was an urgency to get the faculty and staff settled before. So sometimes we did have some properties that necessarily met the needs, met more than the needs, met less than the needs, but that was based also on the urgency of making sure that they did have a roof over their head so that they could perform their duties for the students. So that's another thing to keep in mind. But again, I also want to say thank you to those who spent endless hours in communicating with off campus properties for those that were not familiar with the College Station area in terms of what would be a livable space in a very critical, immediate time frame. So, again, thank you so much to off campus housing.

Dr. Cummins:

Do some of you have some comments or concerns about medical services or health issues or some of those things that should be lumped in here – not lumped in but should be addressed?

Dr. Cepeda:

I was going to comment along those lines. We organized a couple of orientation meetings where faculty could come and go and get informed about housing as well as things that are around College Station and facilities and medical care and things of that nature. So it would be good to have kind of a directory of where the most important things that people are going to need and materials that is going to help them navigate College Station and Bryan. And so we did on the spur of the moment called the Chamber of Commerce and we got maps and we did gather, put together whatever we

could some of the same things we do for our faculty orientation when we come here. But there might be other things that need to be directed to people who come.

Dr. Lang:

Related to this and I plug both of the superintendents, as well. Both Bryan ISD and College Station ISD went above and beyond to take care of all of our children and anyone in the community that can pass that word on. They were fabulous what they did to assimilate and that was a huge relief to all of us and for those of you that don't know. We have done 21 sea camp days now in the local school district with the kids to have Galveston here in College Station while we were here.

Mr. Shallenberger:

Real quick on medical services and I'll be honest with you, I don't know if this is an issue or not, but I haven't asked the question of Brad about HR. Being in Galveston and Blue Cross Blue Shield, are we in network or out of network? I thought of that question before anybody in my family had to use medical services, but didn't ask it. Subsequently my family has had to use it and now I'm wondering are we in or out of network and that may be something for the future that we may need to work out.

Ms. Lallah Howard:

To go back to Gil's point. Doing – the expectations of the faculty and staff before they come that in the case of an emergency. You will receive a stipend and it's to help offset the cost that you may incur in moving to an alternate location and really outline in that expectation what this very specific designated amount is to them offset. Not intend to cover it all. You may still have out of pocket, but then they go to the local community to get the goods and services they need. There are tax implication on that, too, but at the same time it is a very set expectation and they know it up front when they sign a contract.

Dr. Cummins:

Anything else?

Ms. Boyd:

I just have one point that I think would be helpful. Antonio mentioned it and in one aspect of having a directory. I know that the facility in the MCS, which is Multicultural Services, provided the operation for faculty and staff relocation and assignments and I think that was a great location. However, it acted as a hub for a lot of things that faculty and staff experienced whether they were looking for medical advice or insurance or whether they were looking for a place to wash their clothes in the community. I'm thinking in the future there would be maybe an alternative location or hub that would be a centralized response area. I know that the GSC operated as one, but I think there should be another one that would disrupt or kind of complicate or intervene in the operation and interference of daily activities from other departments.

Dr. Bob Sindylek:

Still employee assistance counseling was relying on UT being pretty much they could meet their own needs so we turned to Texas A&M and they were unable to respond. So we were able to put into place some private contracting, but we probably need to do some work in that area, make sure that if a disaster of this magnitude were to occur again, that's a piece that we already have in place tying into a national network or something.

Ms. Lobaugh:

I just want to reiterate of what was just said. In having the counselor there in Galveston was helpful. You know, we came back in day three and as staff members, essential members started coming onto the campus it still looks like a bomb went off. These are people who had three, five, eight, ten foot of water in their homes, no home to sleep in or go home too, invalid parents, children and having the counselor there just available was very helpful.

Ms. Cornelius:

I think something along with the counseling that we need to plan on in the future we need to have two counselors or we need to have a counselor who can equally distribute their time between Galveston and here. Because there were probably people here who would have loved to talk to somebody, but how are they supposed to leave here when their responsibilities are here and they go back to Galveston. So I think it's very important to have two separate people or someone in both places.

Ms. Doran:

And also not to mention the hours that we were all working. We were all working 15- to 18-hour days. And that – that's a huge factor because we're already under a lot of stress. Everyone is away from their family and that's something that needs to be taken into account because there are great consequences after someone goes through that much stress after all this is over. There's going to be things that happen after all of this that will surprise this. You don't see the effects until way after a year after when someone gets an illness because you went through so much stress, you put your body through so much stress and that needs to be taken into account. Again, the emotional aspect, you know, going through a private situation and making sure there's more than two counselors available for the staff in Galveston and for the faculty and staff her in College Station.

Dr. Cummins:

If I could get a few comments about students services and communications.

Dr. Parrott:

Just want to give some information about TAMUG students use of student (inaudible). Disability services provide services to less than ten TAMUG students. The

transition for those students with disability was more difficult than the students themselves had anticipated. It makes sense. It's a bigger campus, different barriers, different challenges and so forth. Contact with TAMUG – contact, information, so forth. From an accommodation from those students waned towards the middle of the semester and may work better if TAMUG with data on students who are currently receiving services in Galveston and reach out and contact them rather than wait for students to come to disability services. Student counseling services providing services for less than 40 students, close to 100 appointments over the course of time here. Currently working on with the students that provided services to. We have one outstanding issue and that's continuity of care. We need to talk about that. Also the Dean of Student Life with TAMUG staff. Student fraternity worked on a number of A&M students in terms of lease issues. That was with a student attorney. Students services needs to pay for it. Students had access to that one poor beleaguered attorney but (laughter). Certainly we worked with off campus housing, worked with students in terms of (inaudible) also. Student Health Service provided service to 251 TAMUG students, 539 appointments. And their main challenge was having to manually load Sims data so that students could make their appointments on the web and so on and so forth.

Ms. Hernandez:

Talking about the student's assembly. I think it worked well having both the TAMU contact and TAMUG contact. I think it was helpful to communicate with on those issues. It was great having the TAMUG staff present to be able to talk to the students and the family members there. One of the things we talked about if housing assignments are going to be made at the student's assembly in the future, obviously more time is going to be needed to process those students. A day and a half was a little bit too short a window to go through all of that. The assembly may not be need to be drive by when schedules are ready. And then perhaps having more student data in advance might have been helpful. I know when I talked to the parking representatives they talked about if they had known who had parking permits on Galveston campus, if they had that data ahead of time, they might have been able to do some different things. It might have been helpful with meal plans, and housing and those types of things. But I think out of all of this if we could shoot over some of this data ahead of time, it might make some of those processes a little bit easier here when they're transitioning to our campus. It wasn't necessary or it didn't seem necessary to have the assembly where TAMUG offices were housed. It was convenient, I think, for TAMUG staff to go back and forth, but I don't think it was necessary to have it housed right there where those offices were, which was one of the primary reasons we picked that particular location to have the assembly. And the other thing I wanted to talk about was students community giving effort. Publicizing point of contact in student services, TAMUG contact or giving efforts. We intended to have a whole bunch pop up around campus and sometimes they were competing and asking for different things. And then just recognizing the limitations of current students and staff serving as volunteers, especially as we got further into the semester. I think everyone had the volunteer spirit, but then they were also getting into their own courses

and their own issues so our volunteer and level of involvement tended to wane a little bit as we got later into the semester.

Mr. Taylor:

On communication, there may be a group of students we need to flesh out are the graduate students who are doing research in Galveston but are not enrolled in Galveston. They may not be on the Galveston alerts and so forth, so they would have to – we had several international students in that situation. Some of them were on the ship who eventually came back in and found their apartment gone. I think that's an area that we may need to flesh out a little bit more.

Ms. Bremer:

Before the transition actually happened, the call line was opened and some people had the expectation that they could call that line and get information, but there was only one phone line that was servicing that so those hours it was constantly busy so I think people had a hard time getting the answers they wanted and that just added to the trouble. If we had had more than one line, more people can man those phones and get additional help.

Ms. Cornelius:

I'm kind of going along with what Betsy was saying. I think there were two (inaudible) with the hotline /W-PL. for starters at the beginning of this hurricane season we actually established a hotline updating every time (inaudible) was three separate times we had to monitor storms. And unfortunately because that phone line was based in Galveston, we lost it when the storm came through. As a result, two different phone numbers began rolling to the same phone line. One was 187 Sea Aggie, which is our 800 number; and the other was 979 number that was posted online. Like Betsy said, it was a nightmare. We had to open it late and shut it early so we would actually have two hours a day that we could try and get work. Most of the phone calls were probably 20 to 30 minutes long because lots of times you just had parents who wanted to talk. So it became more of a counseling line as opposed to an information line. The other big problems that went along with was that was you were handling information that not just anyone needed to be distributing. You needed to make sure people were getting the correct facts at the correct times. For example, if there was something going on with housing that wasn't official yet, you needed to make sure that wasn't getting out even though in the area where we were working, a lot of people knew a lot of information that wasn't official yet. And so when we finally had student workers showed up, it was wonderful and excluding Betsy, several other student workers showed up in the beginning. But several weeks into this when we actually had regular student workers, it was great to have people, but I don't think more than one or two of them were ever actually put on the phone because there wasn't time to train them on what was appropriate, how to be professional, and what you could say or couldn't say. So I think there needs to be something in place, there needs to be a training session, and you need to know that someone is going to speak professionally and they're going to be able to

handle it. There was a lot of emotion for a lot of us. So I think when everyone else is working 16- and 18-hour days to spend those entire day stalking on the phone with people who are upset and people who had no clue what a hurricane was, there needed to be some sort of reprieve for that.

Mr. Golemo:

I spent a lot of time on the phones, too, and a lot of it came back to that vacuum of information. I got to see it was a great experience for me in a way because I got to see a lot of the decisions and how the higher-ups made those decisions and there was a continuum between, you know, information that we – we never wanted to give out any information officially that wasn't one hundred percent true. But then also that meant there was a lot of decisions, a lot of information that we couldn't give out. And so it was very sporadic in dealing with students it was the fear of the unknown. They didn't know what was going on and this was very – I think that was honestly one of the most traumatic things for them was just all kinds of rumors and stuff like that. And I don't know, I think if there is was one thing I would change maybe we could see what kind of leeway there is in that. If we had a time there was going to be updates. Every day we would send them updates. This is where you can check. I know when I explained to parent the situation like, you know, this is why that decision was made, they were more than understanding. And they said, okay, I understand that and when can I find out more? Just having a steady line of information. I don't know, I think having a time when we were going to dump what we had or whatever every day or also one having one particular place. I'm really big, is anybody, on information. We had sending out Facebook messages and MySpace and doing NEO and stuff like that, but I wonder if we didn't spread it out too much. Maybe we should have said this is the place where you can come get your information and this is where – like you know, chicken and the egg type thing. Nobody checks their NEO because nobody ever uses it. I wonder if maybe we missed an opportunity there to get people in the habit of checking their NEO account every day because that's where they could go for information.

Ms. Parrott:

There are a number of documents that were generated both in the, for the group meeting, and by group meeting that we had a regular basis for and various other purposes. Do you want those documents for any reason?

Dr. Cummins:

How many of them are there? Yes, I would be interested.

Ms. Parrott:

I think the president's office are going to have those.

Mr. McClendon:

I've got those.

Ms. Cornelius:

I think the important thing is to not make the 1-800 number our main contact number because since then in the midst of all this you're getting questions about admissions or campus tours or I want to join the Corps of Cadets, what do I do? I think that's another reason we really need to not use that number.

Ms. Hernandez:

I think one of the things that helped, too, is when we were able to finally answer some frequently asked questions and they could check on the website. I think that minimized some calls. Obviously some wanted more clarification and I think what that enabled us to do, too, and what's good (inaudible) documents was that now that we have a list of frequently asked questions, we can answer those questions ahead of time so that we will have those answers or be thinking about those questions and those answers more in advance than we had this time around.

Dr. McGonagle:

I want to defer to Norma.

Ms. Duran:

Real quick. A lot of the calls that were funneled through me, I don't know how they got to me, but it was great that I was able to answer the questions was the custodial staff that were Spanish speaking. They didn't know what was going on. So thankfully I was able to answer their questions, because they didn't know if they were going to get paid, they didn't have internet access so it's very important to somehow disseminate that information in Spanish somehow because they didn't know what was going on.

Dr. McGonagle:

I know we're getting ready to wrap up. One thing that's going to be imperative to Galveston, especially and we'll hammer on this when we get back, but also it's going to apply to College Station is an experience that we've had since Ike and that's FEMA. We have a FEMA consultant that's helping s with our FEMA reimbursements and project worksheets and so forth. But basically what our consultant has asked us to do is basically recreate everything we did from September 11, the time when we made the decision to leave, until the present on a by-minute basis nearly because of the opportunity to reimburse for over time, straight pay, equipment used, all the things that come with FEMA reimburse. So that's one thing we'll definitely hammer on in Galveston, but we want to look at what that means to College Station, as well. And Kevin McGinnis over at Risk Management can help with that.

Ms. Meyer:

Gary Jackson, as well.

Dr. Cummins:

What you're going back to, you talk to getting back to normal. It's a new normal. You've been gone for three months. I have no idea what you have experienced. I have not gone through what you have gone through. I do have great admiration for you and certainly we're glad to help you. But there's more to be done when you get back. And we're standing ready to help you out. Keep these things in mind. That's where I'm going to turn it back to Dr. Loftin.

Dr. Loftin:

I won't keep you long. A couple of words then. The last comment made was important. This is not the end of our learning on this experience. We really want you to come together today as a group and deal with this in this particular context, but we couldn't obviously get everything learned today. So what's important is that we want to tap into your mind about this over the next few months before, again, things get too volatile and you forget what happened. Expect to hear from us and by all means please provide us with comments you might have.

Mr. McClendon:

Do you want them to come to you? Rodney will be your point of contact. He will channel you. We might put together some helps. We'll have a plan.

Dr. Loftin:

We want to make sure you have an opportunity to add more to this. We got you started today thinking about this. I heard lots of great comments things I didn't know and I didn't understand. I know have a better grasp. I know we have in mind all of it because there are many more of you here than we could hear from this short period of time. So my point is even though there is an open bar upstairs, there is no such thing as a free drink. We're going to expect to learn from you more over the next few weeks and couple months, basically as we try to put this into a manageable form. We send back out to you what we gathered from the transcript here today and resources so you can comment on them. I know it's a pain, but think about his. The next time this happens. We won't have to reinvent so much. That's what I'm interested in trying to get past my retirement hopefully. But if we can do things right now, we won't only save ourselves potentially, but other generations who will work here a lot of grief. If we can really learn from this experience and codify what we've learned and make sure it's available to us in the future. That's the key thing. So upstairs on the tenth floor we have an open bar and some snacks for you. The bar will be open for only a limited period of time. Our resources are limited. Thank you for two things. Thank you for being here today. Most of all, thank you for those many hours, days, weeks of work you put in to make this all possible. It was an extraordinary event. I pray I never go through it again. It wasn't perfect. It was the best we could do. That's all we can do. It was the best we can do. Thank you all.

(End at 4:38)

After action review
December 10, 2008
Reporter's certification
Melissa G. McPherson
A AA Werlinger & Associates
Firm #328
1716 Briarcrest Drive, Suite 601
Bryan, TX 77802

**APPENDIX D MEMO CONCERNING POST-IKE
AFTER ACTION REVIEW**

November 5, 2009

MEMORANDUM

TO: Dr. R. Bowen Loftin, Interim President
Texas A&M University

FROM: Dr. Rodney P. McClendon, Acting Vice President and CEO
Texas A&M University at Galveston



SUBJECT: Post-Hurricane Ike Evaluation of Emergency Response
Plans

Following the evacuation and implementation of the Emergency Response Plan, specifically the Emergency Short-Term and Long-Term Recovery and Business Continuity Plan (BCP), Texas A&M University at Galveston and Texas A&M University conducted an After-Action Review. Additionally, throughout the last year, the Strategic Operations Team has regularly discussed "lessons learned". As I vacate my position as Acting Vice President and CEO, I think it important to commit to writing the fact that the findings and recommendations of our comprehensive review resulted in very modest modifications to the existing plan. The most significant findings are outlined below.

First, in an effort to ensure continued goodwill and communications between both campuses, the Incident Command Team members and those with delineated responsibilities within the BCP at TAMUG have been tasked with initiating conversations with their counterparts in College Station prior to the start of hurricane season and immediately upon activation of the team. The expectation is that these continued discussions will facilitate any future implementations of the plan. This is particularly valuable in terms of identifying space on the College Station campus and in the community should a relocation become necessary.

Second, Dr. Donna Lang created a matrix (see attached) identifying the anticipated actions based on severity of the storm and the time of arrival. Vetted through the Strategic Operations Team (comprised largely of Incident Command Team members), this tool will aid in the decision making process. It should be noted that this document is for internal use and not for publication with the Emergency Response Plan.

Third, individual departments throughout campus were tasked with improving their response and adjusting their participation in the implementation of the BCP. Individual department documents were created, collected and stored on a web accessible drive to ensure portability. These documents include department specific plans for the relocation of and reinstatement of services.

Finally, a significant amount of time was spent discussing and re-aligning the individual elements of the plan with the related official/group in College Station. Most of these changes were minor in scope and are therefore not spelled out in this letter.

The most recent version of the Emergency Response Plan and all the component pieces are available at <http://www.tamug.edu/emergency/EmergencyResponsePlan.htm>.

Attachment

C: Mr. Bill Hearn
Dr. Alex Kemos
Strategic Operations Team

APPENDIX E. STORM RESPONSE MATRIX

	Minor storm damage -less than two weeks	Significant damage -more than two weeks until beginning of beginning of next long semester
Summer Session I (Very Low Threat)	Deliver to extent possible via web tools. May need to cancel and refund some classes. Determine if start of summer II is feasible. Summer II can shift by approximately one week.	Complete all classes possible (cruise, field trips, offsite, etc.). May need to cancel and refund some classes. Determine if summer II can be held and/or if fall term needs to be adjusted.
Summer Session II	Deliver to extent possible via web tools. Adjust calendar if possible. Determine a secondary location for testing and classes as feasible to complete summer term. Adjust start of fall term as needed. If this scenario is very early in session, may need to cancel and refund some classes.	Complete all classes possible (cruise, field trips, offsite, etc.). May need to cancel and refund some classes. Determine if fall semester has to be adjusted or possibly relocated.
Before or first few days of Fall term	Adjust beginning of term and possibly end of term. Adjust calendar to extent feasible. Pay special attention to last new student conference.	Implement relocation. Build schedule with TAMU framework. Student will register in new schedule.
After first week through mid Fall semester	Deliver to extent possible via web tools. Adjust calendar if possible. Determine a secondary location for testing and classes as feasible.	Implement relocation. Every effort will be made to establish a continuation of existing courses and maintain relationship between student and faculty member. Can be accomplished through block scheduling and/or rebuilding similar pattern to current schedule.
Late fall semester. Approx. last three weeks of classes.	Deliver to extent possible via web tools. Adjust calendar if possible. Determine a secondary location for testing and classes as feasible. Every effort should be made to complete Fall term and complete grading cycle. Use incompletes as necessary to carry to spring term.	Deliver to extent possible via web tools. Adjust calendar if possible. Determine a secondary location for testing and classes as feasible. Determine need for relocation for spring term.

	<p>Catastrophic damage -more than one full semester</p>
<p>Summer Session I (Very Low Threat)</p>	<p>Complete all classes possible (cruise, field trips, offsite, etc.). May need to cancel and refund some classes. Cancel Summer II. Implement relocation for fall. Student will register in new schedule. Determine location (s). Determine if students will register in TAMU schedule (with addition of Galveston specialty courses) or maintain two separate terms.</p>
<p>Summer Session II</p>	<p>Complete all classes possible (cruise, field trips, offsite, etc.). May need to cancel and refund some classes. Pay special attention to last summer conference. Implement relocation for fall. Student will register in new schedule. Determine location (s). Determine if students will register in TAMU schedule (with addition of Galveston specialty courses) or maintain two separate terms.</p>
<p>Before or first few days of Fall term</p>	<p>Implement relocation. Determine location(s). Build schedule with TAMU framework. Student will register in new schedule. Determine if students will register in TAMU schedule (with addition of Galveston specialty courses) or maintain two separate terms.</p>
<p>After first week through mid Fall semester</p>	<p>Implement relocation. Every effort will be made to establish a continuation of existing courses and maintain relationship between student and faculty member. Can be accomplished through block scheduling and/or rebuilding similar schedule. For following semester, determine if students will register in TAMU schedule (with addition of Galveston specialty courses) or maintain two separate terms.</p>
<p>Late fall semester. Approx. last three weeks of classes.</p>	<p>Deliver to extent possible via web tools. Adjust calendar if possible. Determine a secondary location for testing and classes as feasible to complete fall term. Determine need and location for relocation for spring term.</p>



Campus Emergency Operations Procedures

200 Seawolf Parkway, Galveston, TX 77553

Contents

DEFINITIONS	428
Campus Emergency Declaration:	428
Incident Command Post:	428
Emergency Operations Center (EOC):	428
Parent/Family Information Site:	428
MISSION	430
SECTION 1. INCIDENT COMMAND	432
General Procedures	432
Direction and Control.....	432
CAMPUS INCIDENT COMMAND TEAM.....	434
Incident Command (ICT) Team	434
EMERGENCY OPERATIONS CENTER.....	436
Emergency Operations Center Mission.....	436
Emergency Operations Center Location	436
Emergency Operations Center Evacuation.....	437
Emergency Operations Center Coordinator	437
Emergency Operations Center Organization.....	439
Operations	441
Planning.....	443
Logistics	445
Finance	446
Incident Command Team Initial Activities	446
Incident Command Team General Procedures.....	447
Staffing During Emergency Response/Adverse Conditions	447
Remaining at Work/Time Reporting.....	447
Order to Re-open Campus/Return to Work Notification	448
CAMPUS CLOSURE PROTOCOLS	449
Authority to Close Campus.....	449
Notification Process – Chain of Action.....	449
Authority to Re-Open Campus.....	450
Additional Information.....	450
SECTION 2. TAMUG BUSINESS CONTINUITY PLAN	451

Objective	451
Concept of Operations	451
Employee Actions	451
Evacuation	452
Pre-Storm	452
Short-Term Recovery Plan (Campus down time: 7-10 days)	452
College Station Staff Contingent	452
Support Staff Contingent	453
TAMUG Staff Contingent	453
Phased Return to TAMUG	453
Tier I: First Responders	453
Tier II: Essential Personnel	454
Medium-Term Plan (Campus down time: 11- 45 days)	455
College Station Staff Contingent	455
Phased Return to TAMUG	455
Tier I: First Responders	455
Tier II: Essential Personnel	455
Long-Term Recovery and Business Continuity Plan (Campus down time: Beyond 45 days)	456
College Station Staff Contingent	456
Relocation – Students	456
Relocation – Faculty and Staff	459
Student Services	462
Providing TAMUG Students Classes in College Station	465
Billing and Fees at TAMU College Station	468
Financial Operations	468
 SECTION 3. EMERGENCY COMMUNICATION RESPONSE PLAN	 471
Campus Communications Procedures	471
Assessment	471
Response	471
Ongoing Procedures during Crisis	472
Aftermath Component	472
Media Relations Management	474
Responsibilities	474
Sea Aggie Alert Protocols	477
Authority to issue an Sea Aggie Alert Message	477
 APPENDIX: SPECIFIC EMERGENCY RESPONSE PROCEDURES	 479
Shelter In Place	479
Shelter-in-place, Violent Persons	480
Shelter-in-place Hazardous Weather	481

Campus Closure (No Classes – No Evacuation).....	482
Building Evacuation.....	484
Campus Evacuation.....	484
General Evacuation Procedures and Guidelines (Campus):.....	484
General Evacuation procedures and guidelines:	485
Student Evacuation Procedures:.....	486
Return to Campus Information for Students, Faculty and Staff.....	487
Fire Emergency.....	488
Medical Emergency.....	489
Severe Weather (HURRICANE, TORNADO, FLOOD).....	489
Workplace Violence or Criminal Behavior.....	490
Armed Assault.....	491
A Single gunman.....	491
Multiple gunmen.....	491
Command Procedures for Threat to Campus	493
Campus Lockdown Procedures.....	493
Terrorist Threat / Attack.....	495
Immediate Securing of Campus	495
Command Procedures for Threat to Campus	495
Securing Campus.....	496
Securing of the Waterfront Operations and T/S General Rudder	497
Shelter In Place.....	497
Employees:	497
Bomb Threats	498
Command Procedures for Threat to Campus	500
Hostage Situation	502
Command Procedures for Threat to Campus	503
Civil Disturbance or Demonstration	505
Chemical/Radiation Spill	507
Chemical Leak at nearby Refinery.....	507
Campus Evacuation during a chemical leak.....	507
Shelter in place during a chemical leak.....	507
Return to Campus Information for Students, Faculty and Staff.....	508
Hazardous Materials Spill.....	510
Utility Failure.....	511
T/S General Rudder Emergency	513
T/S General Rudder Emergency – At Sea.....	513
Securing Campus.....	513
Communications.....	513
Boating Emergency Procedures	514
Boating Responsibility	515
Communications.....	515
Immediate Support Services.....	516
Pandemic Health Hazard Response.....	517

Background	517
Major Planning Assumptions	517
Selected Definitions Related to Pandemic Influenza	519
The Texas A&M University System Pandemic Influenza Planning	
Emergency Response Levels.....	520
Level I: No pandemic influenza virus activity is occurring	521
Level II: Pandemic influenza virus activity identified, but none in the United States	522
Level III: Pandemic influenza virus activity identified in the United States, but none documented in Texas	522
Level IV: Pandemic Influenza Activity Identified Throughout Texas (includes cases on any Texas A&M campus)	524
Level IV.A: For mild to moderate influenza illness (similar to seasonal influenza).....	525
Level IV.B: For Severe Influenza Illness (epidemic begins to impinge on essential services)	526
Planning Considerations Related to Pandemic Influenza Emergency Responses	529
A. General	529
B. Direction and Control	529
C. Continuity of Operations and Essential Services.....	530
D. Communications.....	531
E. Major Health Service Considerations During a Pandemic	532
F. Management of Vaccines and Prophylaxis	532
G. Mass Fatalities Management	533
H. Employee Well-being and Support	533
Additional Pandemic Influenza Information Sources	533

- CAMPUS POLICE 409 740-4545 OFFICE
 409 771-5185 AFTER-HOURS

- FACILITIES SERVICES 409 740-4547 OFFICE
 409 771-5185 AFTER-HOURS

- GALVESTON POLICE 409 797-3702 24-HOURS

- AMBULANCE 409 797-3702 24-HOURS

- FIRE 409 797-3702 24-HOURS

- COAST GUARD, AIR RESCUE 1-800-874-2154 24-HOURS

- SEABORNE CHALLENGE 409 740-4852 OFFICE

713 408-1826 AFTER HOURS

National Oceanic & Atmospheric Administration	(713) 337-5074
Galveston Public Works	(409) 766-2115
Houston Lighting & Power	(713) 228-7400
Southern Union Gas	(409) 763-8551 or (800) 582-4565
American Red Cross	(409) 763-5971
Texas General Land Office (spill responses)	(512) 475-1560
TNRCC (water/waste)	(713) 625-7900
Center Point Energy	(713) 207-2222

Definitions

Campus Emergency Declaration: Any incident that significantly impairs the normal operations of the University and the campus community. The Emergency Event may have an impact requiring immediate action to be taken by the President or in extreme circumstances the TAMUG Police Department officer in charge to ensure that institutional operations are restored and a safe environment exists.

Incident Command Team: Upon declaration of a Campus Emergency Event that results in a Campus Declaration of Emergency, members of the ICT will assemble in the Emergency Operations Center (EOC), located on the 3rd floor of the OCSB.,

Incident Command Post: (ICP) is the location at which the primary command functions take place. The Incident Commander is located at the ICP, and there is only one ICP for each incident.

Emergency Operations Center (EOC): The primary command center shall be on the 3rd floor of the OCSB, or any other locations that may be designated for such usage. These locations shall NOT be publicized to the general public or the news media.

Campus Shelter in Place (SIP): This process shall require all university employees, students, and visitors to remain within the current building(s) and may close or deny entry to the campus by anyone other than emergency responders and essential personnel with appropriate credentials. During a SIP all students, faculty, staff and visitors must remain in the classrooms, offices, residential hall rooms, or areas they were at the time of the SIP, unless directed otherwise by the Incident Commander through emergency response personnel. If necessary, persons may be denied permission to enter the university proper or portions thereof.

Essential Staff: Pre-determined individuals who are permitted access to campus if an emergency event has precipitated a campus SIP and campus closure/evacuation. A list shall be kept at TAMUG Police Headquarters and sent to the ICC at the outset of the emergency event.

Critical Incident Media Site: Once an Emergency Event has resulted in the declaration of a campus emergency, the Director of Communication and Media Relations or her/his designee will determine an appropriate Media Site that will not interfere or potentially compromise the emergency operations, rescue efforts, or resulting investigations.

Parent/Family Information Site: Upon notification that the President has declared a campus emergency, the AVP for Student Affairs, or her/his designee, will determine a need for, and an appropriate location of a parent information site that will not interfere or compromise emergency operations. The Parent Information site will never be located in

the same locale as the Media site; nor will the media be given access to the Parent Information Site without the express permission of the Incident Command Team.

Mission

It is the mission of Texas A&M University at Galveston to provide policies, education and training to enhance the protection of lives and property. Emergency Management will coordinate and integrate all TAMUG resources to mitigate, prepare for, respond to, and recover from emergencies that affect Texas A&M University at Galveston

Since an emergency is, by definition an incident that may occur suddenly, without warning, at any time, or any place, Texas A&M University at Galveston (TAMUG) has developed this Emergency Operations Plan (EOP) and Public Information Manual. It is designed to provide the basic administrative structure and procedures necessary to cope with emergency situations.

Texas A&M University at Galveston's EOP was created to address emergencies that may happen on campus or at a TAMUG facility. The EOP is designed to assist TAMUG leaders with the ability to coordinate emergency response and minimize the effect on employees, students, visitors, and facilities. TAMUG is committed to providing continuous education and research opportunities to all of its staff and students. This plan recognizes that any interruption of service to staff or students is a potential emergency and that TAMUG will use all resources to quickly and safely mitigate the emergency.

TAMUG and its operations are susceptible to emergencies such as natural disasters, severe weather, and other hazards. Because an almost limitless number of emergencies may be encountered, the EOP was designed to serve as a template for the many possible responses. Procedures have been designed to comply with applicable regulations, including TAMUS policy 34.07 and 34.07.1 Emergency Management Plan for System University Campuses.

The EOP is the foundation for the TAMUG Comprehensive Emergency Management Program. This program consists of plans, procedures, training, drills and exercises, to acquire resources and equip facilities based in the National Incident Management System (NIMS). It has been developed to coordinate with Federal Emergency Management Agency (FEMA); State of Texas DPS Emergency Operations, Galveston County Office of Emergency Management (GCOEM), and City of Galveston Emergency Operations Plans and to maintain emergency response capabilities. It is designed to interface with community response organizations and anticipate potential emergencies which may affect any operation or service.

The key elements of the Emergency Operations Plan of Texas A&M University at Galveston has an emphasis on three goals:

- **to protect life**
- **to protect property**
- **to resume normal operations**

These three goals can only be achieved when TAMUG administrators, faculty, maintenance personnel or staff, support staff, students, government entities, and all other outside resources become involved in the development and implementation of the EOP. This meticulous preparation, through education, and training, and the systematic implementation during an emergency, will allow TAMUG to survive an emergency or disaster so it can resume normal operations.

The three goals of the plan are strengthened by a framework of four fundamental phases:

- **preparedness** – planning for an emergency or disaster event
- **response** – the planned response to an emergency or disaster event
- **recovery** - the process of returning to normal operations
- **mitigation** – steps taken to prevent the effects of an emergency or disaster

These four phases, when used together, will lessen the impact of an emergency and its latent effects that could disrupt TAMUG's operations more than the actual emergency or disaster itself.

SECTION 1. Incident Command

General Procedures

For minor emergencies, TAMUG and local responders will handle the appropriate response. The county may be called upon to provide supplemental assistance and coordination whenever the consequences of an emergency exceed University and local capabilities.

If the disaster, emergency, or terrorism incident exceeds the capabilities of the Galveston County resources, the regional counter-terrorism task forces can provide assistance in the form of specialized response teams. Additionally, the State of Texas will be requested to provide assistance. If needed, the State can mobilize an array of resources including, specialized response teams, support personnel, and specialized equipment to support disaster or emergency affairs.

Direction and Control

In all emergencies, it is essential that there be a planned and predetermined command structure to take control of the scene, maintain control, and direct emergency response operations. The Incident Command System (ICS) will be followed at the scene of the emergency.

1. The ICS organization is built around five major functions:

- **Command**
- **Planning**
- **Operations**
- **Logistics**
- **Finance/Administration**

2. The focal point of the ICS is the **Incident Commander**. The ICS organization has the capability to expand or contract to meet the needs of the incident, but all emergency incidents, regardless of size or complexity, will have an Incident Commander. Initially, the Incident Commander will be the senior first responder to arrive at the scene (e.g., the Police Chief). The Incident Commander is responsible for on-scene management until command authority is transferred to another person, who then becomes the Incident Commander. Unified Command allows all agencies with responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies.

3. The **Incident Command Post (ICP)** is the location at which the primary command functions take place. The Incident Commander is located at the ICP, and there is only one ICP for each incident. The ICP should be located:

- Away from the general noise and confusion associated with the incident.
- Outside the area of present and potential hazards.
- Within view of the incident, when possible.

4. Command Staff. The Incident Commander can use three primary aides if needed to help control the emergency:

- Liaison Officer – This is a police officer designated by the Incident Commander. The chief responsibility of the Liaison Officer is to act as the go-between for other emergency responders and agencies and the Incident Commander.
- Safety Officer – The Director of Safety (DS) is the Safety Officer and acts as a resource to provide the Incident Commander with health and safety related information pertaining to the emergency. The Safety Officer makes determinations as to whether it is safe to approach the scene of the emergency, whether emergency responders may be putting themselves at risk by responding to the emergency, and offers recommendations on how to protect the health and safety of emergency responders during the response.
- Public Information Officer (PIO) – The Director of Communications and Media Relations is the PIO and acts as the go-between for the Incident Commander and the media. All information coming from the scene of the emergency goes through the Incident Commander to the PIO before it is disseminated to the public or the media.

5. The EOC has been identified, and may be activated by the University President, Designee, or Senior Administrator, during an emergency.

6. This plan embraces an "all-hazards" principle that most emergency response functions are similar, regardless of the hazard. The University will mobilize functions and personnel as required by the emergency situation.

7. Overall emergency operations will be directed from the EOC. The emergency field operations will be directed from an established ICP.

By approval of the TAMUG president, the Emergency Operations Plan delegates the implementation of the plan to the Chain-of Command listed below:

1. President
2. Provost/ Senior Vice President
3. Vice President for Academic Affairs
4. TMA Superintendent
5. Assistant Vice President of Student Affairs

Campus Incident Command Team

Incident Command (ICT) Team

This group provides overall leadership and guidance to the University community during an emergency or disaster. They may meet as a separate entity or elect to assemble the Campus Emergency Resource Team to assess the greater effect of the incident on the University.

The ICT will meet at the Emergency Operations Center to better assess the emergency and determine response.

During this time of assessment the ICT shall also be in contact with the Director of Safety, the University Police, and the Emergency Response Coordinator. This group will decide any appropriate immediate action deemed necessary to help stabilize the University during the emergency and future operations during the course of the emergency.

The ICT will receive constant and current updated status reports from the EOC, University Police, and the Director of Safety at regular intervals or at the request for any additional information needed.

The TAMUG Incident Command Team consists of the following:

- President
 - Advisor to the President
- Senior Administrators
 - Provost/Senior Vice President
 - Vice President of Academic affairs
 - Superintendent of Texas Maritime Academy
 - Associate Vice President for Student Affairs
- Director Information Services
- Director of Communications and Media Relations
- Emergency Response Coordinator
- Chief of Police
- Director of Safety
- Director of Facilities Services

RADM Robert Smith	C: ***_***_****	C: ***_***_****
MG Bill McClain	C: ***_***_****	
Dr. Bill Seitz	C: ***_***_****	H: ***_***_****
Mr. Grant Shallenberger	C: ***_***_****	H: ***_***_****
Dr. Donna Lang	C: ***_***_****	A: ***_***_****
RADM William Pickavance	C: ***_***_****	
Mr. John Kovacevich	C: ***_***_****	

Chief Sam Martinez	C: ***_***_****	
Capt. Allan Post	C: ***_***_****	
Mr. David Watson	C: ***_***_****	
Cathy Cashio-Bertrand	C: ***_***_****	
Will Heidel	C: ***_***_****	
Campus Police	C: ***_***_****	(after hours)
	O: ***_***_****	(8-5 M-F)

Primary Contacts in the event of an emergency:

Campus Police	C: ***_***_****	(after hours)
	O: ***_***_****	(8-5 daily)
Chief Sam Martinez	C: ***_***_****	

C = Cell Number
H = Home Number
A = Alternate Number

Emergency Operations Center

Emergency Operations Center Mission

The Emergency Operations Center will function as the primary physical location for campus coordination and management of the crisis or emergency situation. The authority and decision to activate the Emergency Operations Plan resulting in the opening of the Emergency Operations Center will follow the Chain of Command beginning with the President and CEO. If the President and CEO is unavailable, the administrator in charge will activate the plan:

The Emergency Operations Center will remain operational until the President and CEO or administrator in charge declares the crisis or emergency incident to no longer be a threat to the campus and the campus is returned to normal operations.

Coordination of center set up and operational support will be managed by the Emergency Response Coordinator and the Executive Administrative Coordinator. Once established, administrative management of the center will revert to the Executive Administrative Coordinator.

Emergency Operations Center Location

- The primary EOC shall be located in the 340c of the Ocean and Coastal Studies Building, #3029, and shall be the base of operations
 - Secondary safe location RM 114 of Bldg. 3003
 - 3rd safe location Wardroom of the T/S General Rudder
 - TAMU College Station ICC, General Services Building Facilities Planning suite. Coordinate with TAMU VP Administration to activate.
 - A remote secure location has also been established with the City of Galveston office of Emergency Management should the need exist
 - The President and CEO or designee will lead the Incident Command Team and is solely responsible for making all decisions and statements concerning an evacuation of campus facilities.
 - In addition, the President and CEO is the only individual authorized to order re-entry on to campus property and the only authority offering media statements.
 - In the absence of the President and CEO, his designated representative shall assume these responsibilities.
 - The Emergency response Coordinator will be responsible for administering the system and remaining fully informed as to the status of operations

Emergency Operations Center Evacuation

Once the President and CEO or delegate decides an evacuation of the TAMUG Campus is required the Emergency Operations Center is relocated to TAMU College Station. The Executive Administrative Coordinator will depart TAMUG campus with Emergency Operations Center gear and set up operations in College Station at the designated location.

Incident Command Team Members who will evacuate to College Station first and set up the College Station Emergency Operations Center are.

President and CEO
Executive Administrative Coordinator
Secretary to the President
Special Advisor to the President
Communications Director
Communications Specialist
VP for Academic Affairs
Associate VP for Student Affairs and Auxiliary service
Director of Information Services
Assistant to the Vice Presidents

Incident Command Team Members who will remain on Campus to coordinate evacuation.

The evacuation should be completed in no more than 8hrs from the time the order is given.

Senior VP and CAO
Emergency Response Coordinator
Director Facilities Services
Director of Student Affairs
Chief of Police
Safety Director
Senior IS staff member
Waterfront Operations BCIII

Once the evacuation is complete and the campus is closed the remaining ICT members will evacuate to College Station as needed or appropriate.

Emergency Operations Center Coordinator

To better facilitate the operations of the Emergency Operations Center, the Executive Administrative Coordinator to the Office of the President will serve as the Emergency Operations Center Coordinator whose duties will include but are not limited to:

- Assisting with the administrative needs of the available Incident Command Team members located in the center.
- Answering Emergency Operations Center phones, screening calls and directing the staff as needed.
- Daily situation reports.
- Copying and creating a filing system; filing.
- Ordering food and beverages.
- Recording minutes of daily meetings.
- Coordinating communications with TAMU, TAMU System and any outside agencies such as Galveston EOC as required.
- Staffing of the Emergency Operations Center as needed.
- Maintaining an incident log as necessary of all activities.
- Securing additional resources as required maintaining center operations.
- Securing office supplies including batteries.

The Emergency Operations Center Coordinator will also coordinate the acquisition and delivery of center equipment needs which includes but is not limited to:

- Voice IP Phones and a satellite phone (to be provided by the Waterfront Operations).
- Computers.
- Walkie-Talkie radios (to be provided by the Waterfront Operations).
- Copy and fax machine.
- Basic office supplies.
- Police 800 series radios (to be provided by Campus Police if available).
- A generator to power radios (to be provided by Facilities Services).
- Vehicles including trucks, cars, electric carts, gas-powered carts, boats and trailers.

Emergency Operations Center Organization

The Emergency Operations Center operations will be under the leadership and direction of the President and CEO or the administrator in charge. Access to the center will be controlled by the Campus Police. Access is restricted to members of the Incident Command Team, their designated alternates and campus community members essential to the operations of the center.

This plan has been developed based upon the structure of emergency management within the State of Texas. This plan serves as an emergency management link between TAMUG, the municipalities, and the County; and also coincides with the concepts of the National Response Plan. This plan employs a functional approach that groups the types of assistance that the University is likely to need based upon the twelve federal Emergency Support Functions (ESFs). The functional areas have been grouped according to the categories of the National Incident Management System (NIMS).

COMMAND

- Senior Administrators:
(**President, Associate Provost, and Vice Presidents or Designee**)
 1. Declaration of emergency if the situation warrants. Overall Command of the Situation

President and CEO: The President and CEO or administrator in charge will take the lead in conveying the administration's response to the crisis, showing that the campus has control of the situation, calming public concern and providing leadership for the entire campus.

Associate Provost and Chief Operating Officer: Will be responsible for the logistical and tactical operations of the crisis response and recovery. The Emergency Response Coordinator and the Associate Vice President for Student Affairs and Auxiliary Services will assist as directed. These responsibilities include but are not limited to:

- 1.Strategic and tactical planning and coordination of the response activities.
- 2.Coordinating campus security efforts by the Campus Police and Facilities Services staff members to insure the campus perimeter and all campus facilities are secured.
- 3.Directing Incident Command Team members who are on-site of the crisis or at the emergency location.
- 4.Coordinating recovery efforts and restoration of campus operations after crisis has passed.

5. Assessing resource needs for response with Emergency Operations Center Coordinator.

Vice President for Academic Affairs:

During the crisis, the Vice President for Academic Affairs will provide guidance and leadership in the areas of academic affairs as the situation dictates. He/she will be responsible for coordinating the restoration of all academic programs and activities following the crisis or emergency situation

1. Coordinate class schedules and/or location changes.
 2. Coordinate the relocation of academic programs and activities away from areas affected by the crisis.
 3. Coordinate the relocation of academic courses and services to TAMU if necessary.
 4. Notifying and coordinating with external agencies regarding the disruption in academic activities.
 5. Coordinate the reallocation of financial aid and enrollment services as necessary
- Emergency Response Coordinator
(Waterfront Operations Director)
 1. Manages the overall University administrative response, manages NIMS compliance and support
 2. Works with the Administration and others in assessing the emergency and preparing the University's specific response.
 3. Provides for CERT Communication and Coordination.
 4. Establishes the EOC.
 - University Chief of Police
 1. Coordinates the overall University emergency response.
 2. Determines the type and magnitude of the emergency and implements the appropriate emergency response.
 3. Initiates immediate contact with the EOC and University administration, and begins assessment of the University's condition.
 4. Notifies University Police, Director of Safety and, if necessary, community leaders in order to maintain safety and order.
 5. Notifies and conducts liaison activities with appropriate city, county and state organizations such as fire, police, state, and federal officials, etc.
 6. Obtains the assistance of utility companies as required for emergency operations.
 7. Ensures that appropriate notification is made to off-campus staff when necessary.

8. Performs other related duties as indicated by the campus emergency.
- Director of Safety
 1. Provide direct assistance to the President or the Emergency Response Coordinator and the Chief of Police in the areas of damage assessment, communicating with needed resource providers, coordinating recovery and restoration strategies in affected areas.
 2. Identify spin-off hazards and vulnerabilities that may affect the University and its ability to effectively address the emergency or disaster.
 3. Coordinate with all responders to ensure that all personnel are equipped with the appropriate Personnel Protective Equipment (PPE) necessary and are following safe working procedures in accordance to all State and Federal guidelines.
 - Director of Communication and Media Relations
 1. Advises the President of all news reports concerning the emergency.
 2. Establishes liaison with the news media for dissemination of information as requested by the President.
 3. Establishes liaison with local radio and TV services for public information.
 4. Prepares news releases for approval and release to the media concerning the emergency.
 5. Establishes press conferences and news release information on a regularly scheduled basis during the emergency.
 6. Establishes a press center and briefing room for all media.
 7. Updates the status of the campus emergency on the TAMUG website under the emergency update section.
 8. Arranges for photographic and audio-visual services.

Operations

A. Emergency Operations

(University Chief of Police)

B. TAMUG Police

1. Notify the University Administration of emergencies or disasters.
2. Take immediate and appropriate action to protect life, property, and to safeguard records.
3. Coordinate security and law enforcement services
4. Establish security and protection of critical facilities, including the EOC
5. Coordinate traffic and access control in and around affected areas.
6. Assist as appropriate with route alerting and notification of threatened populations.
7. Assist as appropriate with the evacuation of affected students, staff, or faculty, especially those who are immobilized or injured.

8. Conduct training exercises (Table-top, advanced table-top, and controlled drills) for police force in emergency management techniques, policies and procedures.

C. Immediate Health Services

Galveston EMS and Campus Emergency Response Team (CERT)

1. Respond to the EOC or the field, as needed.
2. Coordinate medical activities within campus, including triage.
3. Coordinate medical services as needed to support shelter operations.
4. Coordinate with Counseling Center as needed for support

D. Communications Services

(Director of Information Services)

1. Coordinate the University website to post updates regarding the campus emergency or disaster.
2. Coordinate staffing to complement all equipment utilized during the emergency or disaster.
3. Arrange for separate lines of communication (computer, TV, and phone) to be fully operational at all times at the EOC. These lines of communication shall not be connected to, or in conjunction with, existing forms of communication on campus.
4. Arrange for any additional communication equipment needed at the EOC.
5. Coordinate TAMUG computer technicians in their effort to re-establish computer service on campus, if lost.

E. Associate Vice President for Research and Graduate Studies:

1. Coordinating the relocation of research activities away from areas affected by the crisis.
2. Coordinating the relocation of graduate study academic courses and services to TAMU if necessary.
3. Notifying and coordinating with external agencies regarding the disruption in research activities.
4. Coordinating needs of researchers who must relocate animal research specimens and collections.
5. Notifying the Institutional Animal Care and Use Committee (IACUC) that deviations in animal oversight and control are being undertaken as a result of the crisis or emergency situation.
6. Coordinating the removal of hazardous or radioactive materials with the TAMUG Safety Officer.

F. Superintendent Texas Maritime Academy

1. Coordinating the relocation of the T/S General Rudder if necessary.

2. Coordinating use of the T/S General Rudder as a command and control or support platform during the crisis and recovery thereafter if needed.
3. Notifying and coordinating with external agencies regarding the disruption in cadet teaching and training activities.
4. Assessing impact of crisis to training and credentialing aspects of the maritime program.
5. Coordinating all services needed to ensure efficient ship operations during the crisis or emergency situation.
6. Identifying funds for recovery and restoration of the maritime program and if the T/S General Rudder is used.
7. Organizing cadets as a support force when a decision is made to use them as volunteers during a crisis.

Planning

A. Emergency Response Coordinator (EOC)

1. Establish a University emergency management organization.
2. Provide for continuity of operations.
3. Establish lines of succession for key positions.
4. Prepare and maintain this EOP in collaboration with the local and County Emergency Operations Plans.
5. Establish, an EOC.
6. Identify hazards and vulnerabilities that may affect the University and municipalities in coordination with the municipal emergency management agencies.
7. Identify resources within Galveston and adjoining counties that can be used to respond to a major emergency or disaster situation.
8. Develop and maintain an on-going emergency Procedures for the students, faculty, staff, and administration of TAMUG.

B. Student Life Issues

(Associate Vice President for Student Affairs and Auxiliary Services)

1. Develop and maintain trained managers and staff who shall be available on short notice to assist with emergency and work in emergency or disaster or disaster.
2. Develop and maintain a team of student staff to be available for tasks such as posting information, running errands, driving shuttles, taking head counts in evacuations, and other duties as the emergency or disaster dictates.
3. Ensure that managers are available to coordinate residence hall evacuations if necessary.
4. Develop and maintain a housing staff designated to locate off-campus or on-campus housing for affected students.
5. Ensure that Residence Life Staff and others are available to assist with staffing phones and speaking with concerned parents.

C. Executive Director of Student Life

1. Oversees all areas of assessment, planning, and the collection and dissemination of information as it pertains to the students and their families.

D. Director of Counseling

1. Ensures Psychological First Aid is available to students, staff, faculty and administrators

E. Associate Provost / Senior Vice President

1. Oversees the effort to collect, assemble, analyze, and disseminate information in regards to available resources and their respective participation in relation to the restoration or continuation of academic functions.

2. Reviews resources available during the emergency or disaster and allocates accordingly to the needs of the University in effectively managing the emergency or disaster.

F. Executive Administrative Coordinator

1. Coordinates the effort to collect, assemble, analyze, and disseminate information about an emergency and the necessary response and recovery operations, particularly to facilitate the provision of disaster assistance.

2. Reviews and ensures that the resource list and contact information is available for the EOC.

3. Tracks all resource participation and all available records incurred during the emergency or disaster.

G. Human Resources

(Executive Director of Human Resources)

1. Compile information on all employees affected by the emergency or disaster incident.

2. Develop and maintain a support mechanism for all affected employees.

3. Coordinate the labor force, overtime costs, and obtain any temporary labor force, etc.

4. Provide any necessary counseling services.

H. Department Heads

1. Distribute building evacuation information to all employees with follow-up discussions, on-the-job training or explanation as required. Contact Safety Office for assistance.

2. Schedule time that can be allowed for training employees in emergency techniques such as fire extinguisher usage, first aid, CPR and building evacuation procedures. Contact the Safety Office for assistance.

3. Consider alternative means of communication in the event of a utility failure.

Logistics

A. Damage, Repair, and Control

(Director of Facilities Services)

1. Provide equipment and personnel to perform shutdown procedures, hazardous area control, barricades, damage assessment, debris clearance, emergency repairs and equipment protection.
2. Provide vehicles, equipment, and operators for movement of personnel and supplies, assigns vehicles as required.
3. Furnish emergency power and lighting systems as required.
4. Survey habitable space and relocates essential services and functions.
5. Provide facilities for emergency generator fuel.
6. Provide storage of vital records at an alternate site.
7. Coordinate with building managers for liaison and necessary support.
8. Work in conjunction with others in writing a report assessing the emergency and final outcome.

B. Housing

(Assistant Director of Residence Life)

1. Provide for relocation of students displaced from their living quarters by the emergency or disaster.
2. Provide housing as needed for emergency workers who are required to remain on campus to provide assistance during the emergency or disaster.

C. Food and Water

(Director of Dining Services)

1. Maintain an emergency inventory for a minimum of three days of food and water for TAMUG resident students.
2. Maintain a listing of food assets within the University and its suppliers.
3. Coordinate the dissemination of information and supplies to the food community within the surrounding communities.
4. Coordinate the distribution of food to emergency workers and emergency/disaster victims.
5. Develop and maintain written agreements on emergency food and water delivery by the University's suppliers. These agreements will call for a minimum of one (1) truckload each of individual bottles of drinking water, gallon size bottled water, and non-perishable foods. These are to be delivered to the University upon request by the University during an emergency or disaster.

D. Building/s with incident

(Assistant Director of Facilities Services)

1. Provide assessment of all structural and non-structural damage to the building(s).

2. Coordinate emergency repairs to mitigate damage to the facility.
3. Safely salvage all capital assets (files and equipment) and relocate to a safe location.
4. Shut off all utilities to the facility.
5. Assist with the furnishing of emergency power and utility service to facility as practical.
6. Secure the facility as best as the emergency or disaster will allow.

Finance

A. Vice President for Finance

1. Assess any and all financial damage, if any, immediately affecting the University. This is especially important in a cyber attack on the campus.
2. Facilitate, allocate, and release funding for the emergency procurement of materials and supplies as needed.
3. Develop and maintain a list of all state contracts that may be needed in the event of an emergency or disaster.
4. Apply for federal post-disaster funds, as available.
5. Insuring the continuation of payroll services and accounts payable during and after the crisis.
6. Assessing fund balances in relation to clean up and recovery costs following the crisis.
7. Coordinating business continuity activities with the TAMU Vice President for Finance and Comptroller's Office.

Incident Command Team Initial Activities

Once convened, the available Incident Command Team members will:

- Immediately consider which other individuals may need to be added to the team to manage the crisis at hand.
- Review details of the crisis.
- Determine further/ongoing crisis management and response activities.
- Identify target audiences and determine communications strategy.
- Specify communication procedures to internal and external. Constituencies.
- Prepare communications brief for TAMU and TAMU System.

Incident Command Team General Procedures

- All members of the Incident Command Team will designate a backup who will be available to respond to a crisis situation at all times. All backup members will remain on standby/alert for the duration of the crisis.
- The Director of Media Relations and Communications will remain in the Emergency Operations Center when not in the media center and will collect and coordinate the information provided by members of the Incident Command Team and others across campus who are engaged in managing or resolving the crisis. The Emergency Operations Center Coordinator will document all information provided along with the time and person reporting. When relocating to College Station the Director of Media Relations and Communications will work with the TAMU VP of Administration to set up a media center.
- All members of the Incident Command Team will assess staffing and resources needs associated with responding to the crisis and recovery.
- Should the Emergency Operations Center relocate to TAMU, the Emergency Operations Center Coordinator will collaborate with the TAMU Vice President for Administration in activating the TAMU site, if necessary providing information to TAMUG campus community members who are relocating to College Station and securing housing for those relocating. Executive Administrative Coordinator will immediately book hotel rooms in CS for arriving ICT members.
- If external agencies (i.e. local police, fire and EMS) are integrated into the Emergency Operations Center operations, space within or adjacent to the Emergency Operations Center will be provided to such agencies for required logistical and communication support.

Staffing During Emergency Response/Adverse Conditions

During an emergency, it may become necessary to suspend routine campus operations and move to emergency response status. Under such circumstances, all essential employees are expected to report to and/or remain at work to sustain services and protect campus assets. In doing so, the following procedures will be followed:

- ✓ The Incident Command Team will direct all actions during the emergency
- ✓ No faculty or staff member will be allowed to leave campus until released by his/her supervisor

Remaining at Work/Time Reporting

- During a declared emergency time will be recorded as:
 - Regular time worked and any applicable overtime

- Administrative leave will be granted for each hour worked to be taken within 180 days of accrual and approved by the supervisor
- ✓ Employees released from work should not expect to use TAMUG facilities as a shelter for themselves or their dependents during an emergency
- ✓ Non-benefit eligible employees will not be eligible for Administrative Leave

Order to Re-open Campus/Return to Work Notification

- Once employees are released from work by his/her supervisor, campus employees should monitor local news media and the campus website www.tamug.edu for information on when the campus will re-open and when employees should return to work
- The Office of the President and CEO will determine when to re-open the campus
- The media will be asked to announce that the campus has been re-opened and normal operations resumed or an evacuation is ordered
- Voice mail numbers in College Station and Galveston will be available to provide up-to-date information regarding the re-opening of campus. The campus website will also provide this information:
 - (409) 740-4545
 - (979) 862-8245
 - www.tamug.edu
 - Radio/Television Station
 - KHOU -TV Channel 11
 - KTRK -TV Channel 13
 - KTRH – Radio 740 AM
- Failure of an employee to return to work as instructed by his/her supervisor or the President and CEO once the campus is reopened may result in disciplinary action to include termination in accordance with campus rules and System regulations

Campus Closure Protocols

Authority to Close Campus

Authority and decision to close the TAMUG campus will follow the Chain of Command beginning with the President and CEO. The President and CEO or administrator in charge will approve the message and use of Sea Aggie Alert and SchoolClosings.us whenever possible. If the President and CEO is unavailable, the administrator in charge will initiate the campus closure and notification protocols.

However, if time is of the essence, any administrator in the Chain of Action is permitted to send an Sea Aggie Alert and/or SchoolClosings.us message without prior consent should the situation warrant immediate notification.

Notification Process – Chain of Action

The Chain of Action for sending Sea Aggie Alert and SchoolClosings.org is as follows:

Capt. Allan Post		C: ***_***_****
John Kovacevich, Int. Director, IS	H: ***_***_****	C: ***_***_****
Sam Martinez, Chief of Police	H: ***_***_****	C: ***_***_****
Grant Shallenberger, AVPSA&AS	H: ***_***_****	C: ***_***_****

Campus closures will be based on the following:

- Severe Weather (Hurricanes/Tornado/Flood)
- Chemical Release at Refinery
- Chemical/Radiation Spill
- Impending Danger

It is incumbent upon all TAMUG campus members to register for Sea Aggie Alert through the TAMUG website at www.tamug.edu or [www.Sea Aggie Alert.com/my/tamug/signup.htm](http://www.SeaAggieAlert.com/my/tamug/signup.htm)

In the event of a crisis or emergency situation, campus members will be notified immediately via the Sea Aggie Alert and SchoolClosings.us systems by the Emergency Response Coordinator. If the ERC is not available, the next administrator in the Chain of Action will initiate the message. Any administrator in the Chain of Action is permitted to send an Sea Aggie Alert and/or SchoolClosings.us message without prior consent should the situation warrant immediate notification.

Website Update

The website will be updated by the IS Director or designee who will provide updates at least every four hours as the crisis or emergency persists.

Authority to Re-Open Campus

The authority and decision to re-open the TAMUG campus will follow the campus Emergency Response Plan Chain of Command protocols as initiated by the President and CEO. If the President and CEO is unavailable, the administrator in charge will initiate the campus re-opening notification procedures.

All campus members will be notified to return to campus via the Sea Aggie Alert and SchoolClosings.org systems as well as by postings on the campus website.

Additional Information

- All campus employees will be advised to contact their supervisors for specific information about reporting to work.
- Information updates to the Campus Website will be provided at least every four hours or as determined by the President and CEO or administrator in charge.
- All external local government agencies (City Mayor, County Judge, etc.) will be notified of any developments with the crisis or emergency situation as soon as possible.

SECTION 2. TAMUG Business Continuity Plan

The TAMUG Long-Term Recovery and Business Continuity Plan is based upon the concept that the TAMUG campus will be closed for at least the remainder of one semester to an indefinite period of time. The focus of the plan is the relocation of students, faculty and staff to the Bryan/College Station area and the resumption of classes and services on the TAMU campus. The Short-Term Recovery plan focuses on the time the campus will be closed but will not require the relocation of students, faculty and staff to College Station.

Objective – TAMU College Station will accommodate all currently enrolled students, courses, campus services, and research from the Galveston campus

Concept of Operations – If determined necessary and appropriate. TAMUG students, faculty, and available staff will relocate to TAMU for the remainder of the semester and subsequent semesters. TAMUG and TAMU faculty, staff, and services will work in tandem to educate students, provide housing and food, and maintain faculty research. Behind the scenes operations, such as student record management and billing for services, appear seamless to Galveston students.

Employee Actions

The University will designate prior to the start of Hurricane Season June 1st employees who are essential to the campus. These employees will be designated Tier I and Tier II. At the declaration of evacuation these persons must check in with their supervisor to enact the evacuation plan and to prepare for the recovery phase as well. All Tier I and Tier II employees must report to the work location, date and time designated by the Incident Command Team and disseminated by respective department heads and supervisors. Failure to check- in and report for work at the designated place, date, and time will be reviewed and may result in disciplinary action.

It is vital that all Tier III non-essential TAMUG employees must monitor the TAMUG website www.tamug.edu, email, and news media while evacuated. When the decision has been made to enact the business continuity plan and re-open TAMUG (either at Pelican Island campus, hosted at TAMU College Station or another designated venue) it will be announced and posted. Return to work instructions and contact information will be made available by department on the website www.tamug.edu. A hotline phone number will be created and disseminated by Sea Aggie Alert for all employees to call and check on their return to work status. At that time all employees must check in with their supervisors to be given return to work instructions.

All employees must report to the work location, date and time designated by the Incident Command Team and disseminated by respective department heads and supervisors. Failure to check- in and report for work at the designated place, date, and time will be reviewed and may result in disciplinary action.

Evacuation

Pre-Storm

The order to evacuate the campus will be given by the President and CEO or designee at which time the campus Emergency Operations Plan will be implemented:

Announcements will be communicated through department heads to their personnel and students, campus AggNews, voice mail, Sea Aggie Alert and the Houston/TAMUG area media. Campus occupants will be ordered to evacuate the campus *at least* 72 hours prior to projected arrival of Tropical Storm Force Winds.

TAMUG does not have a rental fleet available to transport students to College Station. A TAMU shuttle bus will be dispatched to Galveston to transport TAMUG students that had no transportation to College Station at TAMUG's request. Or TAMUG will have use of some TAMU vehicles if needed.

Students with no transportation and no destination – These students will be evacuated by TAMUG to TAMU, utilizing TAMU transportation services. Note: Historically, this group has never been more than 10-15 students.

The protocols established in the Long-Term Recovery and Business Continuity plan between equivalent TAMUG and TAMU departments regarding continuity of services following a hurricane will be observed in the event of any unforeseen circumstances. All employment actions as the result of a hurricane are governed by TAMUG, TAMU, and System Personnel Policies in addition to State and Federal employment laws.

The activation of the Short-Term Recovery phase of the plan will be determined by the President and CEO or designee based on the assessed condition of the campus and the projected requirements for reopening within a reasonable period of time.

Short-Term Recovery Plan (Campus down time: 7-10 days)

College Station Staff Contingent

Once the TAMUG campus is evacuated, the following members of the Incident Command Team will relocate to the General Services Building on the TAMU campus to set up the TAMUG Emergency Operations Center and conduct operations pre and post-storm:

President and CEO
Executive Administrative Coordinator
Secretary to the President
Special Advisor to the President
Communications Director
Communications Specialist
VP for Academic Affairs

Associate VP for Student Affairs and Auxiliary service
Director of Information Services
Assistant to the Vice Presidents

Support Staff Contingent

Supervision and oversight of evacuated students and camp children in College Station will be provided by the Office of Student Affairs and Outreach. Essential support staff will be asked to relocate to College Station to provide these services. Members of these departments will be in continuous communication with the Command Post.

TAMUG Staff Contingent

Senior TAMUG Campus Police Officers and the campus Safety Officer will remain in TAMUG in a designated safe location throughout the storm, evacuating only if required by city/county government

Phased Return to TAMUG

Initial Return: Once local authorities determine it is safe for essential personnel to return to Galveston Island and the Galveston Causeway is re-opened, the following protocols will be followed by TAMUG:

In order to be allowed entry across the Galveston Island Causeway all responders must have TAMUG photo ID with a responder designation on it. This ID must match the photo of the ID that checkpoint officers will have of TAMUG first responders.

Tier I: First Responders

- All TAMUG personnel designated as Tier I: First Responders are required to return to campus when notified.
- All remaining TAMUG Campus Police will return to campus to provide perimeter security. Texas National Guard may be requested to assist if necessary and available.
- The designated members of the Campus Incident Command Team will return to campus to assess conditions and begin the campus restoration process. This team will consist of the following personnel:
 - Allan Post, Waterfront Operations Director, Campus Emergency Response Coordinator
 - Grant Shallenberger, Assistant Vice President for Student Affairs
 - Will Heidel, Director, Facilities Services
 - Sam Martinez, Chief of Police
 - Dave Watson, Campus Safety Officer
- The Campus Safety Officer will be responsible for assessing the overall safety of the campus and determining areas of accessibility.
- Essential Facilities Services and Waterfront Operations staff will return to begin damage assessment and initial campus clean up.

- Auxiliary Services staff members will be notified to return to campus to provide assistance in the clean-up of auxiliary operations areas and begin providing initial services such as dining facility operations and residents housing.

Tier II: Essential Personnel

Campus Incident Command Team members on campus in collaboration with the President and CEO will determine when the campus is safe for all faculty and staff to return prior to re-opening campus for classes. In doing so, each department head will be notified that he/she is to contact all department personnel regarding the designated return date and time. This information will also be communicated via the TAMUG website that is maintained in the Command Post, Sea Aggie Alert and through local media.

- All TAMUG personnel designated as Tier II: Essential Personnel are required to return to campus when notified.
- All employees will be expected to return to their positions by the designated date and time. Failure to do so will result in disciplinary action unless approved by the department head.
- At this time the Command Post in College Station will be reduced to a skeleton crew that will coordinate the closure of the Command Post and conduct after action reviews of the hurricane with TAMU personnel.
- Normal operations will resume at TAMUG prior to the official re-opening of campus.
- Auxiliary services will open to provide services for returning on-campus residents prior to the re-opening of campus.

Re-Opening of Campus: The President and CEO will announce the date and time in which the campus will re-open for classes. At This announcement will follow the resumption of normal campus operations.

- All TAMUG personnel designated as Tier III: Non-Essential Personnel are required to return to campus when notified.
- Students will be notified to return to campus via the campus website and local media.
- Once the campus is re-opened the Command Post will be closed and all media, parent and other external inquiries will be directed to the Director of Communications at TAMUG.

Medium-Term Plan (Campus down time: 11- 45 days)

College Station Staff Contingent

Command Post operations in College Station will be expanded to include essential personnel in Student Affairs, Academic Services, IT Communications, and Financial Management Services. Continuation of these services will be determined according to protocols established by TAMUG and TAMU. Supervision for students and camp children evacuated to College Station will be coordinated through the Command Post with Student Affairs and Outreach personnel.

Phased Return to TAMUG

Tier I: First Responders

Once local authorities determine it is safe for essential personnel to return to Galveston Island, the following protocols will be followed by TAMUG:

- All remaining TAMUG Campus Police will return to campus to provide parameter security. Texas National Guard may be requested to assist if necessary and available.
- The Campus Command Team will return to campus to assess conditions and begin the campus restoration process. This team will function as the on-site administrative body for the campus.
- Essential personnel including Facilities Services and Waterfront Operations staff, IT Communications, Auxiliary Services and key support staff will be asked to return to help identify the resources needed and provide operational support for renovation, repair and clean up of the campus.
- Should the campus be deemed uninhabitable for an extended period of time, System personnel polices and protocols established in collaboration with TAMU will be followed.

Tier II: Essential Personnel

The Campus Incident Command Team will coordinate the secondary return of Tier II: Essential Personnel through the Command Post at TAMU on an as-needed basis. Tier II: Essential Personnel may be called upon to assist with a phased re-opening of the campus once infrastructure repairs are completed and various campus operations are resumed. Personnel not participating in the clean up and repair process or those who have not been requested to return by their immediate supervisors, will not be allowed to return to campus until further notice.

Partial and Official Re-Opening of Campus: The President and CEO will announce the date and time in which the campus will re-open for classes. This announcement will follow the resumption of partial campus operations. At this time all Tier III: Non-Essential Personnel will return to campus.

Long-Term Recovery and Business Continuity Plan (Campus down time: Beyond 45 days)

College Station Staff Contingent

In the event the campus is unable to reopen within 45 days of the hurricane or is immediately determined to be closed for an indefinite period of time by the assessment team, the Command Post operations in College Station will transition back into the TAMUG Executive Team and will activate the Long-Term Recovery and Business Continuity Plan in accordance with the post-hurricane protocols established through the mutual agreement between TAMU and TAMUG.

Relocation – Students

Responsible Parties

TAMU Lead Position: Associate Provost and Dean of Undergraduate Programs or Designate
TAMUG Lead Position: Director of Student Life

Assembly

TAMU Lead Position: Associate Provost and Dean of Undergraduate Programs or Designate
TAMUG Lead Position: Assistant Vice President for Student Affairs & Auxiliary Services or Delegate

- 1) Students will be directed to a central location upon arrival to TAMU for information and instructions.
- 2) One location will be designated and set-up for registration and student service information/enrollment, billing, financial aid, and new or adjusted ID card.
- 3) One welcome program, or similar event, will be scheduled for students and family members. The program will feature TAMUG and TAMU leadership, “familiar faces,” and information
- 4) Program should be offered once, at a time when the majority of students have arrived at TAMU

Student ID Services – Responsible Parties

TAMU Lead Position: Aggie Card Office Manager
TAMUG Lead Position: Executive Director of Enrollment Services

All TAMUG students relocating to TAMU and living in the residence halls and dining on campus will have IDs (provide description of the student ID service at TAMUG)

- 1) TAMU ID Services will issue TAMUG students with Guest Student Identification Cards.
 - a) TAMUG students will be instructed where to get new ID Card
 - b) TAMU ID Card Services will coordinate access needs with appropriate TAMU services

Housing – Responsible Parties

TAMU Lead Position:	On Campus Housing – Director of Residence Life or designate Off Campus Housing – Director of Student Life or designate Corps of Cadets - Commandant or designate
TAMUG Lead Position:	Assistant Vice President for Student Affairs & Auxiliary Services or Delegate

Given TAMU will not have on-campus housing to accommodate all of the students that are displaced by the disaster, TAMU will provide accommodations in the TAMU residence halls for as many TAMUG students as possible including limited linens, at a minimal fee. Additional housing needs will be assessed and accommodated as the need arises.

All Galveston students relocated to the TAMU residence halls will be issued a student I.D for residence hall room access.

Food Services – Responsible Parties

TAMU Lead Position:	Interim Director of Food Services
TAMUG Lead Position:	Director of Food Services

All Galveston students will have a student ID card that is bar-coded for food service facility access.

- 1) Short-term Solution – TAMU Food Services can provide Conference meal cards as a short-term solution or an immediate interim solution. Internally numbered cards would be issued to correspond with the student's name and UIN. The amount of meals placed on cards can be determined by the projected possible length of time for stay. Additional meals could be added as needed. Information can then be provided on how many meals total as well as time(s) and location(s) a student dined on the College Station campus.
- 2) Any special dining arrangements can be made for students on a case-by-case basis.
- 3) TAMUG students with existing meal plan – TAMUG Food Services and TAMU Campus Dining Office will utilize names, UINs, and individual student meal history to transfer unused meals from TAMUG plans to TAMU Food Services.
- 4) New Meal Plans – The sale of entirely new TAMU Food Services' meal plans will be handled just as those for current students and function as is currently published.
- 5) Additional Information – Locations for dining will be based on hours of availability and areas designated for stay, if appropriate. Location of housing does not necessarily need to be a priority in arranging meals and providing on campus services for meal use through Conference Cards or meal plans. However, some decisions for determining dining locations may be needed due to circumstances directly related to the emergency situation or other possible criteria, such as meal requirements for TAMUG members of the Corps of Cadets. Meals can be designated as limited to certain areas or locations, such as using the “all-you-

care-to eat” facilities Duncan and Sbisal, or be permitted to work as current student meal plans with eat on campus “anywhere any time” choices.

International Students – Responsible Parties

TAMU Lead Position: International Programs Office – International Student Services (ISS) (979) 845-1824 or 1825

TAMUG Lead Position: Assistant Director for Diversity (409) 740-4582

- 1) Overall Issues:
 - a) U.S. and foreign documents
 - i) If at all possible, international students, faculty, and scholars should take with them all original U.S. and foreign documents (e.g. passport, I-94 card, etc.) for themselves and accompanying dependents.
 - ii) If these are lost or irretrievable, TAMU International Student Services (ISS) can assist in obtaining replacement documents.
 - b) Undocumented alien students should check in with ISS to receive advising about potential options (e.g. HB 1403).
- 2) Immigration Issues for Students
 - a) All enrolled international students at TAMUG are issued documents by and/or monitored by ISS already, so there should be no major immigration issues, as long as students continue to follow all regulations governing their visa type (e.g. enroll full time, maintaining accurate addresses in SEVIS, etc).
 - b) TAMUG officials will maintain a headcount and contact with TAMUG international students so their location and addresses can be updated immediately in SEVIS as per federal regulations if they must leave Galveston. Students leaving the U.S. must contact ISS prior to their departure.
- 3) Other Issues for International Students
 - a) Assistance in evacuating TAMUG international students to College Station will be provided for those students who may be without cars.
 - b) ISS will provide nationality contacts in College Station to assist with housing relocation of TAMUG international students, if necessary.
 - c) TAMUG international students should carry ISS emergency contact cards in case they need access to an ISS advisor in emergency circumstances.
 - d) ISS and TAMUG will have emergency contact information for all international students
 - e) TAMUG staff will contact an ISS staff member to assist with an international student’s death or other emergency medical situation. The ISS emergency phone number is 979-255-6005 and is manned by an ISS advisor 24/7/365. Galveston staff should feel comfortable calling that number in any emergency situation.

Parking and Transportation – Responsible Parties

TAMU Lead Position: Associate Director, Transportation Services

TAMUG Lead Position: Executive Director of Student Affairs

TAMUG students taking a vehicle to campus are required to purchase a hang tag and display the tag from the rear view mirror.

- 1) Identify temporary and permanent (length of stay) parking areas for students living both on campus and off campus
- 2) Transfer student parking data from TAMUG to TAMU
- 3) If possible, utilize the TAMUG hang tag as the student's permit in College Station. Determine cost, if any, to students needing parking at TAMU who did not have parking at TAMUG
- 4) Because TAMUG does not have a shuttle bus system, students will need an orientation to both the off campus and on campus bus systems.
- 5) Because TAMUG students will not have paid the Transportation Fee at TAMU, a determination will be made by TAMU and TAMUG officials as to the applicability of any costs for TAMUG students to access shuttle bus services at TAMU.

Orientation – Responsible Parties

TAMU Lead Position: Director of Student Life or designate
TAMUG Lead Position: Vice President for Student Affairs & Auxiliary Services or Delegate

- 1) Students will be provided with an orientation session and campus tours prior to beginning classes at TAMU if possible.

Relocation – Faculty and Staff

Assembly

TAMU Lead Position: Dean of Faculty (for faculty)
Employee Services (for staff)
TAMUG Lead Position: Associate Vice President for Academic Affairs or Delegate

- 1) Faculty and staff will be directed to a central location upon arrival to TAMU for information and instructions on office location, research labs, teaching assignments, job responsibilities.
- 2) One welcome program, or similar event, will be scheduled for faculty and staff. The program will feature TAMUG and TAMU leadership, “familiar faces,” and information
- 3) Faculty and staff will be encouraged to attend the welcome program scheduled for students.

Housing – Responsible Parties

TAMU Lead Position: Employee Services
TAMUG Lead Position: Director of Human Resources or Delegate

Faculty will follow evacuation procedures and will be provided with TAMUG contact information for updates on status of facilities and semester courses. It will be each faculty member's responsibility to access the TAMUG update information and adhere to the timeframe for arrival at the TAMU campus. Communication will follow the TAMU Emergency Communication procedures (Add LINK).

Faculty and staff members may need temporary or permanent (for length of stay) housing in the College Station area in order to maintain their responsibilities with TAMUG. Coordination of available housing will be provided through Student Affairs Off Campus Housing to identify community resources for impacted faculty and staff.

- 1) A central location for information and referrals for housing will be established at TAMU
- 2) The TAMUG point of contact will include information on housing options in the College Station area
- 3) TAMU and TAMUG will work together to coordinate short-term and temporary housing with flexibility in length of lease.

International Faculty – Responsible Party

TAMU Lead Position: International Programs Office (IPO) – International Faculty and Scholar Services (IFSS) (979) 862-1719

TAMUG Lead Position: Human Resources Department (979) 740- 4532

- 1) Overall Issues
 - a. U.S. and foreign documents
 - i. International faculty and scholars will bring with them all original U.S. and foreign documents (e.g. passport, I-94 card, etc.) for themselves and accompanying dependents.
 - ii. If these are lost or irretrievable, IFSS can assist in obtaining replacement documents.
 - b. International faculty and scholars will report to IFSS for advice on how to proceed with their continued employment
- 2) Immigration Issues for Faculty
 - a. International faculty and scholars will be required to update their addresses and contact information on TAMU H.R. Connect. In addition they will provide IFSS with notice of change of address and file Form AR-11 with the United States Citizenship & Immigration Service (USCIS) once they have an address that can be used for more than 30 days. If the international faculty and/or scholar has a pending case with USCIS they will need to call the USCIS customer service at 1-800-375-5283 to update their addresses.
 - b. Each International Faculty or scholar will be responsible for contacting IFSS for assistance to prevent jeopardizing their immigration status. Determinations will be made on a case-by-case basis depending on the length and seriousness of the evacuation.
 - c. J-1 scholars may need a new DS-2019 indicating a location change. SEVIS records will need to be updated with change of personal address and work location information

- d. H visa holders may need wage adjustments to comply with labor laws and the refilling of an LCA and a new H-1B petition
- 3) Other Issues for International Faculty
- a. IFSS can provide nationality contacts in College Station to assist in housing relocation of TAMUG international faculty and scholars if necessary.
 - b. TAMUG-HR will facilitate reporting of its own emergency contact information, in accordance with TAMUG evacuation plans, to their international faculty, scholars and employing department heads in case of death or emergency medical situation of an international faculty or scholar. IFSS, however, will provide assistance to TAMUG-HR by means of facilitating the following support telephone number 979-862-1920 for the above stated emergency contact.

Parking and Transportation Services – Responsible Parties

TAMU Lead Position: Associate Director, Transportation Services

TAMUG Lead Position: Executive Director of Human Resources

- 1) Provide information on temporary parking for TAMUG faculty relocating to TAMU campus
- 2) Identify permanent parking location for TAMUG faculty on the campus of TAMU
- 3) Develop method for communicating parking information to relocated TAMUG faculty, either through central location or through Zone Administrators and/or department contacts.
- 4) Orient TAMUG relocated faculty to the TAMU shuttle bus systems

Faculty and Staff ID Cards – Responsible Parties

TAMU Lead Position: Aggie Card Office Manager

TAMUG Lead Position: Director of Human Resources or Delegate

All TAMUG Faculty and staff relocating to TAMU and living in the residence halls and/or dining on campus will have IDs (provide description of the student ID service at TAMUG)

- 1) TAMU ID Services will issue TAMUG Faculty and staff Guest Identification Cards
 - a) TAMUG Faculty and staff will be instructed where to get new ID Card
 - b) TAMU ID Card Services will coordinate access needs with appropriate TAMU services

Faculty and Staff Office Space – Responsible Parties

TAMU Lead Position: Deans or designee

TAMUG Lead Position: Vice President for Academic Affairs

Faculty Research – Responsible Parties

TAMU Lead Position: Vice President of Research

TAMUG Lead Position: Associate Vice President for Research & Development

Employee Assistance Services- Responsible Parties

TAMU Lead Position: Employee Services - Faculty and Staff Counseling Services
(979) 845-3711

TAMUG Lead Position: Director of Human Resources or Delegate

- 1) TAMU will act as liaison to TAMUG Employee Assistance Services
- 2) TAMU will provide TAMUG faculty and staff access to TAMU services
- 3) TAMU will coordinate and respond to request for counseling including crisis intervention and referrals for specialized care and follow-up. Faculty and Staff Counseling Services psychologists may service in declared shelters and other locations to provide services to evacuees and shelter support personnel

Student Services

Student Medical Services – Responsible Parties

TAMU Lead Position: Director of Student Health Service or designate

TAMUG Lead Position: Assistant Vice President for Student Affairs & Auxiliary Services or Delegate

- 1) TAMUG students will be given access to A.P. Beutel Health Center and its services, including the pharmacy.
- 2) TAMUG students will receive information on the services at the Health Center and how they can access those services

Student Counseling Services – Responsible Parties

TAMU Lead Position: Director of Student Counseling Services or designate

TAMUG Lead Position: Director of Counseling or Delegate

The Galveston Offices of Counseling and Career Planning & Placement are responsible for a number of student services provided by three professional staff. All three are either licensed professional counselors (LPC) or LPC interns. Primary areas of responsibility include personal counseling, educational counseling, services to students with disabilities, career planning and placement services, and providing related student programs. Secondary responsibilities include assisting TAMUG international students, acting as liaison to our contracted medical service provider and overseeing our health and wellness initiatives.

If classes resume in College Station, it is essential that TAMUG students have ready and immediate access to TAMUG counselors early during the relocation period – especially those that were receiving services prior to the relocation. Ideally, this access would be available in the main assembly area. In addition, a secure location will be needed to maintain confidential student files. In doing so, TAMU will:

- 1) Provide immediate and public access to information on counseling services to TAMUG students

- 2) If possible, have TAMUG counseling staff visible and available to students as they arrive on campus and proceed with relocation process.
- 3) Provide TAMUG students access to TAMU services.
- 4) Provide TAMUG counseling staff with appropriate and secure office space on TAMU campus.
- 5) Locate secure storage for confidential student counseling files that is accessible to counseling staff
- 6) Utilize TAMU Counseling Service if counseling services are beyond the capacity of the TAMUG staff

Services for Students with Disabilities – Responsible Parties

TAMU Lead Position: Director of Disability Services or designate

TAMUG Lead Position: Director of Counseling or Delegate

The TAMUG Counseling Office handles the responsibility of providing services to students with disabilities.

- 1) TAMU will honor the accommodations determined by TAMUG’s Counseling Office staff and provide all accommodations supported by the student’s documentation
- 2) TAMU will generate the accommodation letters for any students who were receiving accommodations and services through TAMUG’s disability services at the time of the evacuation.

Career Services – Responsible Parties

TAMU Lead Position: Executive Director, Career Center

TAMUG Lead Position: Director of Career Planning & Placement or Delegate

An office identity for TAMUG students seeking career services will be maintained. Due to the unique nature of TAMUG’s academic programs and the maritime academy, TAMUG staff must be on hand and have available space to conduct employer meetings and interviews. In doing so, TAMU will:

- 1) Provide TAMUG students access to TAMU Career Services
- 2) Allow Galveston students to pay a career services fee to register for TAMU career services

Student Financial Aid – Responsible Parties

TAMU Lead Position: Assistant Provost for Student Financial Aid

TAMUG Lead Position: Executive Director of Enrollment Services

Because TAMUG is a branch campus of TAMU, all federal financial aid applications (FAFSAs) are sent to the main campus, and program funding is part of the allocation to the main campus. All state financial aid programs are allocated independently and directly to each campus, but TAMU has access to TAMUG’s state financial aid programs in COMPASS and FAMIS.

In the event of a hurricane that temporarily disrupts processing at the Galveston campus, the Department of Student Financial Aid at TAMU is prepared to provide office space for TAMUG financial aid staff and/or take over processing of TAMUG financial aid. Therefore, under emergency conditions, TAMU's Department of Student Financial Aid will become the responsible office should TAMUG operations be diTAMUGpted.

- 1) Emergency Funding for Short Term Needs
 - a) Short Term Loans – The first, and easiest to accommodate, is the short term loan programs. Through a manual process, TAMUG students could apply for and receive funds same day. These funds would need to be repaid, but would provide immediate relief. This option also would not impact aid packages that may have already been provided.
 - b) Emergency Scholarship Funds – The second is to allocate emergency scholarship funds, either from existing program funds or from TAMU reserves to support these students. The need for this emergency funding will be largely dependent upon the severity of the diTAMUGption and the timing of the diTAMUGption.
- 2) Financial Aid Documents and Awards
 - a) All financial aid applications and awards are stored in COMPASS. There is no impact on awards. All historical financial aid documentation is stored in the TAMU imaging system.
- 3) Access to Financial Aid System
 - a) TAMUG staff and students will still be able to access financial aid information through COMPASS, FAMIS, and HOWDY.
 - b) At least one staff member at TAMU will have access to TAMUG financial aid systems with the THECB and with TG. TAMUG processing will be continued in College Station by TAMUG staff or TAMU staff.
- 4) Work Study and Student Employment
 - a) TAMUG students can be added to the Jobs for Aggies database and given access to apply for TAMU student worker jobs in the event of a long term closure of the TAMUG campus. Since TAMUG work study jobs are primarily in financial aid, TAMU's Department of Student Financial Aid will employ those on work study funding at Galveston or find other employment for them in College Station.
 - b) For a short period of time (evacuation and 1-2 weeks clean-up), the need for providing this service is minimal.
- 5) Processing Checklist – In the event of an evacuation or other diTAMUGption at Galveston, TAMU and TAMUG will take steps to ensure the following occur:
 - a) Contact will be made by the Financial Aid Campus Director at TAMUG with the Assistant Provost for Student Financial Aid at TAMU to start temporarily disabling processes or start transferring operations.
 - b) TAMUG staff will be provided office space and computers in College Station.
 - c) COMPASS staff will be notified of changes in TAMUG operations.
 - d) TAMU's Financial Aid website will be updated with information on Galveston's financial aid.

- e) NEO email will be distributed to Galveston students to notify them of the availability of TAMUG financial aid staff and the availability of resources for assistance.
- f) Galveston loan processes will be immediately handled by TAMU loan staff to maintain compliance and continue to transfer funds.
- g) Notification of TG and THECB of changes in processes for loan disbursements.

Providing TAMUG Students Classes in College Station

Class Schedules and Room Assignments – Responsible Parties

TAMU Lead Position: Registrar
 TAMUG Lead Position: Executive Director of Enrollment Services

The TAMU Registrars' office and the TAMUG Office of Admissions and Records (ADRC) have a long history of good relationships. Class Schedules and Room Assignments will be highly inter-related to Teaching Assignments. Many decisions will be impacted by the timing of the storm as well as the level of damage. If it is determined to establish academic operations in College Station, the following process shall serve as a basic guideline:

- 1) Call in essential staff to TAMU including Director of Admissions and Records, and at least three (3) designated ADRC staff.
- 2) Implement phone bank to contact TAMUG faculty. Determine availability of faculty to relocate.
- 3) Explore feasibility of relocating ship to other Texas port, and establishing maritime curricula aboard vessel. If not feasible, explore relocating maritime students to other State Maritime Academy (possibly California or Maine).
- 4) Define areas of specialization and course offerings with available faculty.
- 5) Define areas that overlap with TAMU courses, and TAMUG faculty are not available
- 6) Define areas of shortage where faculty is not available and TAMU cannot offer expertise
- 7) Identify available classroom facilities for TAMUG faculty
- 8) Allow flexibility for night and weekend scheduling of TAMUG courses/labs
- 9) Define registration (either independent TAMUG or merged with TAMU)
- 10) Determine feasibility of distance education methodologies to deliver courses to students not able to relocate and/or to deliver courses to TAMU by faculty not able to relocate (possibly using IBT or other Houston site).
- 11) Implement a student hotline to check in and declare intent to continue enrollment prior to arrival at TAMU.
- 12) Post arrival date, times, and place to website including instructions to call hotline number if possible.
- 13) Begin to "re"-register students with new schedules based on their intention to enroll. (Every effort should be made to enroll the student in a similar schedule to their "pre-storm" enrollment. Enrollment in the numeric term should minimize difficulties with financial aid, billing auditing, and reporting).
- 14) Establish a centralized service center at TAMU including a process for those that have indicated intent and those that have not.
- 15) Establish a method for students not intending to continue enrollment to withdraw without visiting campus.

- 16) Develop an audit process and determine process for those students not able to continue enrollment (most likely to no record drop students).
- 17) Negotiate reporting process with Texas Higher Education Coordinating Board.

(This process will require discussion and consideration that financial transactions will be handled at the institutional level and not by student level accounts.)

Teaching Assignments - Responsible Parties

TAMU Lead Position: AOC/GOC Deans
 TAMUG Lead Position: Vice President for Academic Affairs

Assigning Students to Classes- Responsible Parties

TAMU Lead Position: AOC/GOC Deans
 TAMUG Lead Position: Vice President for Academic Affairs

Grades and Transcripts – Responsible Parties

TAMU Lead Position: Registrar
 TAMUG Lead Position: Executive Director of Enrollment Services

TAMUG registration, grades, transcript, and student academic records are all a part of the TAMU COMPASS system and are differentiated by a campus code. This campus code may be utilized in the event TAMUG students moved to the main campus during the period of recovery to allow tracking of the TAMUG students while enrolled on the main campus and provide them with all necessary record/registration services.

This process will be invisible to students.

Textbooks – Responsible Parties

TAMU Lead Position: Executive Director of Financial Management Operations
 General Manager, MSC Bookstore
 TAMUG Lead Position: Assistant Vice President for Student Affairs & Auxiliary Services or Delegate

The effect of a major hurricane on students’ access to textbooks depends primarily on what time of year the storm hits. In the event that a major storm is forecasted for landfall in Galveston, the campus will make every attempt to relocate textbooks and critical supplies to College Station so that when classes resume, students will be able to have immediate access to their academic needs.

- 1) If TAMUG is able to relocate textbooks and critical supplies, TAMUG would like to be able to sell them through a retail outlet established on the TAMU campus.
- 2) TAMUG would need to establish a retail outlet on the TAMU campus, including supplying or borrowing from TAMU necessary retail supplies, such as cash registers, establishing cash management procedures, and locating secure storage. The Director of Bookstore Operations will serve as the TAMU lead on this operation.

- 3) If TAMUG is unable to relocate textbooks and critical supplies, the MSC Bookstore, operated by Barnes and Nobles, will work with TAMUG to order the books and supplies needed for TAMUG students and sell them through their own (MSC Bookstore) inventory. The General Manager of the MSC Bookstore will work with the TAMUG representative to accommodate this need.
- 4) If the storm hits far enough in advance of, or well after, the start of classes, most students will be required to have their materials and the campus will simply require all students to take their materials with them when they evacuate the campus. Minor supplies may be relocated to College Station.

Billing and Fees at TAMU College Station

Student Tuition and Fees – Responsible Parties

TAMU Lead Position: Executive Director of Student Business Services
TAMUG Lead Position: Director, Financial Management Services or Delegate

An important issue will be the payment for services. In most situations, fees will have been collected from TAMUG students and will be in Galveston budget accounts. An important point to note is that Galveston and College Station fees are not necessarily the same in many of these areas. Payment, once fair amounts have been determined, should simply be a transfer from one account to another. TAMU services not routinely provided on the Galveston campus, but deemed necessary for TAMUG students in College Station, will either be paid from other Galveston funds, or be collected from TAMUG students in College Station. In some cases services and fees will change requiring adjustments, i.e., a commuting student in Galveston moves into TAMU housing or vice versa.

Accounts and Billing Services – Responsible Parties

TAMU Lead Position: Executive Director of Student Business Services
TAMUG Lead Position: Director, Financial Management Services or Delegate

The TAMU Student Accounts and Billing Services Office at TAMU College Station currently has some processing responsibilities for TAMUG students for which limited access to TAMUG student accounts has been granted.

- 1) In an extended emergency situation involving closure of the TAMUG campus, TAMU Student Accounts and Billing Services will be approved for full access and assume all processing responsibilities for TAMUG students until TAMUG Student Financial Services Staff can be housed and brought back on-line to resume their duties.
- 2) Student Debt Management - TAMU Student Debt Management will offer assistance to TAMUG students with extended payments if it becomes necessary

Financial Operations

TAMU Lead Position: Accounting Issues – Associate Vice President for Finance and Controller and Executive Director of Financial Management Services
Payroll Concerns – Director of Payroll Services
Expense Tracking and Reimbursement Efforts – Associate Vice Presidents for Finance
TAMUG Lead Position: Director of Financial Management Services

Reporting to the Texas Higher Education Coordinating Board

- 1) TAMUG staff will have access to financial and payroll systems through TAMU systems, as noted below.
- 2) TAMUG will continue submitting required reports as long as feasible for TAMUG staff to handle.
- 3) Should TAMUG staff need assistance, TAMU staff will be available to coordinate data and reporting needs.

FAMIS Access

- 1) TAMU Financial Management Operations (FMO) will provide TAMUG staff workstations to access FAMIS as necessary. Locations for the workstations will include space in the FMO office and/or in the FMO training room located in the Teague building. These locations will be made available to TAMUG staff as a base of operations until TAMUG is available.
- 2) If necessary, FAMIS operations will redirect check printing from TAMUG to TAMU. TAMUG will provide check stock if available. If not available, TAMU will process TAMUG payments on TAMU check stock through a restricted account. TAMU would then bill TAMUG for expenditures paid on their behalf by TAMU.

BPP Access

- 1) BPP can be accessed from any computer hooked up to the Ethernet on the TAMU campus.
- 2) Workstations provided above for FAMIS access could also be used to access BPP.

Payroll Processing

- 1) TAMU Payroll Services will provide support with payroll processing as needed. The BPP system will be able to process payroll in College Station for all affected TAMUG employees.
- 2) TAMU Payroll Services will assist in retrieving payroll related data and answering payroll related questions as necessary, including: relaying management's decisions on salary continuation if employees are unable to return to work; distribution of paychecks; availability of cash advances; changes in deposit information; posting of updates and communications on the Employee Services Web site, etc.
- 3) BPP can be accessed from any computer hooked up to the Ethernet on the TAMU campus
- 4) Workstations provided above for FAMIS access could also be used to access BPP; however, current TAMU Payroll Services staff are able to handle all the data entry, review and processing of TAMUG employees.

Tracking and Documenting Costs for Reimbursement

- 1) TAMU/TAMUG will establish a fiscal account(s) to track hurricane related costs paid by each institution. Departments will be reminded to use the established account to record all hurricane-related expenditures and to maintain appropriate supportable detail

in terms of invoices, time sheets, etc. depending on the nature of the expenditure incurred.

- 2) TAMU Division of Finance will establish contact with FEMA representatives should expenditures be of a nature that may be eligible for reimbursement. TAMU Finance staff will prepare materials to submit invoices for reimbursement and track the status of expenditures versus reimbursements until no further action is warranted.
 - a. Employee Services will provide guidance on the development of detailed job descriptions and personnel records for those employees responding to emergency conditions to permit maximum reimbursement through insurances, FEMA, and comply with State and Federal employment laws.

SECTION 3. Emergency Communication Response Plan

“Aggies Taking Care of Aggies”

The Texas A&M University at Galveston Campus Emergency Response Plan has been developed to provide guidance during emergency and crises events that call for actions and operations beyond the daily operations of the institution. The plan is composed of four parts providing guidance for campus communications, command center operations, media relations, and campus lock down and security protocols during critical incidents. This plan does not replace other emergency plans and protocols in place for severe weather, campus evacuation, post emergency campus recovery, fire and other safety response plans. This plan should be used to complement other plans and procedures. Activation of this plan will insure that effective communication in the event of a crisis saves lives, prevents property loss and disseminates information to all campus members in a clear, concise and organized manner so that we are truly “Aggies Taking Care of Aggies.”

No amount of planning can replace the solid leadership and sound judgment that must be exercised at all levels during a crisis or emergency situation. This plan will always be an evolving document and is for guidance only. In addition, all campus community members should become familiar with the Sea Aggie Alert system by registering all personal communication devices at:

[www.Sea Aggie Alert.com/my/tamug/signup.htm](http://www.SeaAggieAlert.com/my/tamug/signup.htm)

Campus Communications Procedures

Assessment -- The individual who encounters the potential crisis or emergency should gather accurate information from the appropriate sources as quickly as possible. After fact gathering, the individual should contact the Campus Police immediately. Authority and decision to activate the Emergency Operations Plan as a result of the emergency will follow the Chain of Command beginning with the President and CEO. If the President and CEO is unavailable, the administrator in charge will activate the plan.

In the event there is an emergency in progress, the Campus Police may take immediate action to safeguard the campus community through established police procedures while taking steps to notify the administration of the crisis or emergency situation.

Response

After assessing the nature and scope of the situation, the Executive Team member in charge will call together all available members of the Executive Team to execute the following plan:

- Designate a spokesperson: In cases of a significant crisis, the President and CEO or administrator in charge will take the lead in conveying the administration's response to

the crisis, showing that the campus has control of the situation, calming public concern and providing leadership for the entire campus.

- Draft a fact sheet: The fact sheet will contain a summary statement of the situation including all known details to be released to the media. This information will be made available to (and approved by) the President and CEO in addition to copies provided to the President and CEO, President and Provost. This fact sheet should be scrutinized with respect to the public's right to know and concerns for privacy and security in consultation with the Office of General Counsel if necessary.
- Notify key constituencies: Determine key constituencies that should be informed of the crisis. It is important to keep administration, faculty, staff, students and parents informed as appropriate of appropriate details and actions taken by the university during an emergency. The President and CEO or administrator in charge will notify the President and CEO, President and Provost in College Station of the crisis as appropriate.
- Alert the media: Determine whether a news conference and or news release is an appropriate means of conveying information beyond the protocols used to notify faculty, staff, students, the news media and the public. The President and CEO or administrator in charge in consultation with the Director of Media Relations and Communications will determine logistics of the news conference including when, where and how the media will be contacted, which media will be contacted, who will supervise the news conference, who will appear, etc.
- Other spokespersons: Identify any other individuals besides those on the Executive Team who may serve as spokespersons or who might be made available to the news media; assign a public information staff person to provide counsel to those individuals.

Ongoing Procedures during Crisis

During the crisis or emergency, the Executive Team in consultation with the Director of Media Relations and Communications will monitor all news media for reports or updates related to the crisis.

- Open communications: Over the duration of the crisis, open communications between the Executive Team and those responding to the crisis or emergency will be maintained. Redundant communication systems including the police 800 series radios, campus satellite phones and personal cell phones will be utilized in maintaining effective communication links.
- Outside resources: In the event the campus resources and responders are overwhelmed by the crisis or emergency or additional resources are needed, the President and CEO or administrator in charge will contact the local Office of Emergency Management or local law enforcement to request assistance.

Aftermath Component

Following any crisis, appropriate action must take place to ensure that members of the campus community, and others as necessary, receive needed information and assistance to help bring closure to the crisis as well as relief from the effects of the event. Attention also should be placed on identifying and implementing measures to improve the Emergency Operations Plan used during the crisis.

- Communications: If needed, a public forum should be scheduled and coordinated by the Director of Media Relations and Communications to communicate details of the incident and events to all interested members of the campus. The timeliness of this meeting is critical and every effort should be made to see that it occurs within three work days from the close of the crisis. Representatives from the Executive Team, Campus Police, Student Affairs, Human Resources, Employee Assistance Program, as well as the Counseling Office should attend and be prepared to answer questions and share pertinent information. Specific departments and/or individuals also may be requested to attend and participate depending upon the nature of the crisis.
- Immediately following a crisis: It is imperative that the campus be sensitive to the needs of faculty, staff and students who may have been personally affected by the crisis. There may be a need to assist a victim or victims with obtaining information and/or a referral to available resources. Human Resources will be the contact for employee assistance and Student Affairs for student assistance.
- Rumor control: It is not unreasonable to expect that rumors would follow a crisis, further creating an atmosphere of anxiety. As a preventative measure, the campus Website will continuously be updated following the crisis to address rumors and provide additional information as it becomes available. All inquiries to the crisis will be directed to the Director of Media Relations and Communications.
- Ten day follow up: The Executive Team shall meet within 10 days following a crisis and review all actions taken as a result of the crisis to determine effectiveness and efficiency of operations and make any needed changes to the Emergency Operations Plan and Emergency Communications Plan and Protocols. Emergencies can occur at any time and without warning. Careful application of the Campus Emergency Communication Plan and Protocols will assist the Texas A&M University at Galveston campus community in responding appropriately to crises and emergencies and effectively manage the media. Continued evaluation and refinement of this plan is necessary and should be initiated on an annual basis.

Media Relations Management

In the event of a serious emergency or accident involving TAMUG students, faculty and/or staff, the campus will immediately enact the following procedures for managing the media:

Responsibilities

- Office of the President and CEO
 - The President and CEO will notify the Provost and President of TAMU of the crisis or emergency situation.
 - The Director of Media Relations and Communications will be responsible for interfacing with the TAMU Office of University Relations to inform the College Station campus of the emergency and coordinate additional support and secure their assistance, if needed for media relations.
- Information Services
 - IS will establish a media center in Sea Aggie Center 601 or PE Building 107 to accommodate the electronic and data outlet needs of the responding media.
 - If the incident occurs at the Fort Crockett or Teichman Road campuses, media will be re-directed to Mitchell Campus on Pelican Island.
 - Campus Police will secure the crisis area and the media center.
 - Non-campus and non-emergency personnel will not be permitted in the area of the emergency.
- The President and CEO or administrator in charge will serve as the chief spokesperson for the campus.
- If employees or students are called by outsiders or members of the media, they should refrain from comment and refer the individual to the Emergency Operations Center.
- As soon as reasonably possible, the Director of Media Relations and Communications will provide the media with a statement. The statement will be constructed based on the best available information.
- The media will be notified of the next update. Updates will be given by either the President and CEO or administrator in charge.
- Employees should be mindful of potential video cameras and cell phone photography and their coverage of the incident at the scene.
- If/when a media representative arrives on the campus, anyone encountering the media should contact the Director of Media Relations and Communications at extension 4830 or cell phone ***-***-****. If the Director of Media Relations and

Communications is unavailable, then contact campus administration. An authorized administrator in charge will then act as necessary.

- The Director of Media Relations and Communications will report to the established media center and activate assistance from one or all of the following groups: Financial Management Services, Human Resources, Admissions and Records, Naval Science or the Maritime Academy Corps of Cadets. That group of media assistants may be assigned to either the main entrance of the Mitchell Campus or the North entrance of the Mitchell Campus or other locations to intercept and guide representatives to the media center.
- The role of the media assistant will be to escort arriving media representatives to the media center. Staff members will not answer media questions about any crisis situation without the express consent and instruction of either the Director of Media Relations and Communication or administrator in charge.
- Campus community members affected should be discouraged from agreeing to provide media with an interview. If they do, assistance will be provided by the Director of Media Relations and Communications. A designated member of the Executive Team should be present during interviews to insure that ground rules are followed and inappropriate questions are not addressed.
- The Director of Media Relations and Communications will notify the following people in College Station and request assistance as appropriate:

Steve B. Moore

Chief Marketing Officer and Vice President for Communications

TAMU Department of Marketing & Communications

Office: (979) 845-2217

Sherylon Carroll

Associate V.P. for Communications

TAMU Department of Marketing & Communications

Office: (979) 862-2369

Steven B. Moore

Vice Chancellor of Marketing and Communications

Phone: (979) 458-6023

Email: syscomm@tamus.edu

Information concerning the emergency will be communicated as appropriate via Sea Aggie Alert, the TAMUG website and local media sources as information becomes available:

- www.tamug.edu
- KHOU - TV Channel 11 News Desk (713-521-4384)

Preferred method: assignments@khou.com

- KTRK - TV Channel 13 News Desk (713-663-4600)

Preferred method: ktrk.newsalerts@abc.com

- KTRH - Radio 740 AM News Desk (713-212-8740)

Preferred method: ktrhnews@clearchannel.com

- KYST – Radio 920 AM News Desk (713-779-9292)
- KPRC – TV Channel 2 News Desk (713-778-4910)

Preferred method: desk@kprc.com

- KRIV – Fox 26 News Desk (713-479-2701)

Preferred method: assignmentsdesk@fox26.com

- Media updates will be provided at least every four hours or as deemed necessary by the President and CEO or administrator in charge.
- All external local government agencies (City Mayor, County Judge, etc.) will be notified of any developments with the crisis or emergency situation as soon as possible.

Sea Aggie Alert Protocols

Authority to issue an Sea Aggie Alert Message

Authority and decision to issue an Sea Aggie Alert message will follow the Chain of Command beginning with the President and CEO. The President and CEO or administrator in charge will approve the message and use of Sea Aggie Alert and SchoolClosings.us whenever possible. If the President and CEO is unavailable, the administrator in charge will initiate the campus closure and notification protocols by contacting the Assistant Vice President for Administration or the next administrator in the Chain of Action.

The Chain of Action for sending Sea Aggie Alert message is as follows:

Capt. Allan Post, Emergency Response Coordinator

C: ***_***_****

John Kovacevich, Director, IS

C: ***_***_****

Sam Martinez, Chief of Police

C: ***_***_****

Grant Shallenberger, AVPSA&AS

C: ***_***_****

If time is of the essence, any administrator in the Chain of Action is permitted to send an Sea Aggie Alert and/or SchoolClosings.us message without prior consent should the situation warrant immediate notification.

Discretion should be exercised when issuing Sea Aggie Alert messages. Certain dangerous or extreme situations may warrant the issuing of a message immediately:

- Tornado or funnel cloud near campus
- Imminent severe weather (preceded by a National Weather Service alert)
- Campus violence/criminal behavior on campus (shooter, hostage situation, bomb threat, violent actor, abduction on campus, violent assault, etc.)
- Utility emergency (ruptured gas line, downed electrical line)
- Chemical Release at Refinery
- Chemical/Radiation Spill on campus
- Fire in a campus facility.

Sea Aggie Alert messages will not be issued based on the following:

- Events/situations that do not pose an immediate threat to the campus or campus members (i.e. events off campus, events that do not impact Pelican Island, etc.)
- Events/situations that may create an even greater danger to the campus community or members if a message is sent.

APPENDIX: Specific Emergency Response Procedures

Shelter In Place

When emergency conditions do not warrant or allow evacuation from campus, the safest method to protect campus occupants may be to take shelter inside a campus building and await further instructions.

The order to shelter in place will be given by the Office of the President and CEO at which time the following procedures will be implemented.

The term Shelter-In-Place (SIP), means to seek immediate shelter and remain there during the emergency. Some emergencies require evacuation, but often, during tornadoes, exterior hazardous material releases, hostile intruder, and similar emergencies, it is safer to remain where you are, and await instructions. The most important aspect of a Shelter-In-Place (SIP) directive is to TAKE ACTION QUICKLY.

The basic concept behind Sheltering-In-Place (SIP) is to put barriers between yourself and the danger, while maintaining awareness, communications, and safety.

At TAMUG, an emergency Shelter-In-Place directive will be initiated through all possible communication methods, however, the most immediate and effective method of notification will be through the Sea Aggie Alert Text Messaging System.

The Sea Aggie Alert Text Messaging System, will specify the type of Shelter-In-Place (SIP) emergency that is occurring. This includes, for example, tornado warning, exterior hazardous material release, violent person in a specific location, or building, etc. Therefore, the Sea Aggie Alert Text Messaging System can prepare you to react accordingly to the specific type of emergency occurring.

Below please read examples of the types of emergencies that could occur that could cause a Shelter-In-Place to be initiated. Each example provides procedures for you to understand, therefore, you would know how to react.

Shelter-in-place, Hazardous Materials

Should an interior hazardous material release occur, the instruction would be to evacuate the building and area.

In the event of an exterior hazardous material release (including chemical, biological or radiological), either accidentally, or intentionally, a Shelter-In-Place may be initiated. Should an exterior hazardous material Shelter-In-Place (SIP) be initiated the following procedures are recommended:

1. Move indoors and remain there.
2. Once indoors, remain in office, classroom, residence hall room, or other indoor space. The best rooms to enter are interior rooms with no windows.

3. Encourage everyone to immediately go into rooms and out of large public areas.
4. Close and lock windows, doors, and seal the room as much as possible.
5. Shut off heating, ventilation, air conditioning (HVAC) units if possible.
6. Pull down blinds, turn off lights and any other electronic equipment.
7. Monitor your Sea Aggie Alert Text Messages, but remain off the cell phone unless a life and death emergency is occurring.
8. Help others when possible, especially those who are physically disabled.
9. Remain as calm as possible and know that the emergency situation is the central focus of emergency response personnel.
10. If in a vehicle driving on campus, leave campus immediately – obeying traffic and speed regulations.
11. Remain in Shelter-In-Place (SIP) until informed via Sea Aggie Alert Text Message or by University officials that it is safe to leave.

Shelter-in-place, Violent Persons

In the event that a person, or persons, poses a serious threat to campus a Shelter-In-Place (SIP) may be initiated. This would usually involve some form of violence, or a firearm, and necessitate immediate action. Should this SIP be initiated the following procedures are recommended:

1. Move indoors to a safe location.
2. If unable to get indoors, lie flat, get behind an obstruction, put distance between you and the danger and await police.
3. Get into a room, office, residence hall room, meeting room, etc. and lock all doors and windows.
4. Blockade the door if possible with large/heavy furniture, or other heavy objects.
5. Pull down blinds, block windows to door in an effort to obstruct vision from hallway, turn off lights.
6. Remain quiet, silence cell phones, and any other noise producing objects.
7. Stay low to the ground, on floor, near solid interior walls, staying away from windows and doors.
8. Take cover under furniture, or other large objects placing as many items as possible between you and the threat.
9. Do not peek out windows, or doors, to see what may be occurring.
10. Monitor your Sea Aggie Alert Text Messaging System.
11. Do not evacuate if fire alarm is activated unless you are positive a fire is occurring.
12. If possible, and safe to do so, report the location of the violent person if known. Do not remain on cell phone unless a life and death emergency is occurring in your immediate vicinity.
13. Help others when possible, especially the physically disabled.
14. If you are in a vehicle during a Shelter-In-Place (SIP) for violent person, leave campus immediately. Obey traffic and speed regulations.
15. Remain in the Shelter-In-Place (SIP) until informed by police, Sea Aggie Alert Text

Message, or by University officials that it is safe to leave.

16. When Police arrive do not run at them, or make sudden movements. Do not hold anything in your hand that could be mistaken for a weapon.

Shelter-in-place Hazardous Weather

Severe weather could suddenly develop which would initiate a Shelter-In-Place (SIP). The most likely scenario would be a tornado warning, or citing, close to campus. Should this occur, the following procedures are recommended.

1. If outside seek shelter in the closest large building, go to the east or north walls.
2. Do Not seek shelter in any large, free span room such as a gym, auditorium.
3. Move to the lowest floor in the building, the basement is the best option if available.
4. The best room choice is an interior room with no windows, or a small windowless first floor interior room like a closet, or bathroom.
5. If windows are in the room, close and lock windows and doors, pull down blinds.
6. Center yourself under large furniture, or other objects, and protect yourself from flying glass, or debris.
7. Remain as close to the floor as possible, stay out of corners and away from outside walls.
8. Turn off lights if possible
9. Remain in Shelter-In-Place (SIP) until informed via Sea Aggie Alert Text Message, or by University officials that it is safe to leave.
10. Remain off the cell phone, especially after a tornado strike.
11. If anyone is seriously injured, contact University Police at 409-740-4545 or dial 9-911 from campus phone and request assistance.

Central Shelter In Place Location

- Should an incident occur that requires all campus occupants to shelter in place in a central location, the Incident Command will notify each Department Head to have all students, faculty and staff under their area of responsibility or in the building in which they are located to report to the P.E. Facility immediately.
- Once all campus occupants have reported to and have been accounted for in the P.E. Facility, further instructions will be provided by the Incident Command Team

Campus Closure (No Classes – No Evacuation)

Under extreme weather conditions or general emergency, the President and CEO may decide to close the campus early or not to open campus offices and departments, provided that "essential services" will be maintained.

Decision Not To Open Or To Close Campus

Who makes the decision?

The decision to close or not to open the campus will be made by the President and CEO or delegate. The President and CEO may consult with various individuals on campus and ask for recommendations, but the President and CEO will make the final decision.

Conditions that may require a decision to close or not to open the campus should be communicated through Emergency Response Coordinator to the President and CEO at the earliest possible time. Public safety is the primary consideration in closure decisions. In this regard, the Emergency Response Coordinator (or designee) will be responsible for advising the President and CEO for Administration on safety-related conditions. This advisory and/or recommendation will be made after consultation with other appropriate agencies, such as Galveston County of Emergency Management, the National Weather Service, and/or applicable agencies. The Emergency Response Coordinator will then advise or recommend to the President and CEO an appropriate course of action.

When is the decision made not to open the campus?

Such a decision will normally be made by 5:30 a.m. of the effected day.

What is the notification procedure?

The Emergency Response Coordinator (or designee) will initiate an advisory call to the President and CEO. Once the President and CEO has made the decision, the Emergency Response Coordinator will communicate that decision to the following, since these units receive many inquiries regarding decisions on closing and/or have follow-up responsibilities:

- Communication and Media Relations
- Facilities Services
- Student Affairs
- Administration

A Sea Aggie alert will be sent to all to advise all on the closure

When is the decision made to close early?

In the case of early closing, the decision may be made when the President and CEO (or designee) deems conditions warrant closing the campus. Some units may require

immediate notification of the potential to close early because they become obligated to perform certain services in such situations. The Emergency Response Coordinator will be provided a list of such units.

Departments will be notified through their respective Vice President

Personnel who are not required to work during an early release or sequential/staggered release may be released early under the guidance of the department head/supervisor.

When is a decision made to re-open the campus?

In the event of a campus closure, the decision to re-open the campus will be made by the President and CEO (or designee) and announced to the campus community and general public via Sea Aggie Alert.

Who are essential services personnel?

"Essential services" are those functions and personnel required to maintain or protect the health, safety, or physical well-being of campus personnel (students, staff, and faculty), academic mission, and facilities (including research projects), given the conditions of the emergency at hand.

Determining Essential Services for Emergency Closures: The Senior Vice President, Associate Vice President of Student Affairs, Facilities Services Director and Chief of Police will determine which operations under their respective supervision should be designated as essential services (as defined above) and under what conditions specific individuals will be required to work during a general closing. The determination of essential services and personnel may vary depending on conditions of the emergency at hand. Examples of emergency conditions include, but are not limited to: snow, ice, flood, power failure, explosion, or extreme heat or cold. Lists of designated essential services and personnel should be disseminated to the appropriate unit supervisor; individuals included on such lists should be notified by their supervisors. Employees should contact their supervisors if they have questions about whether or not they are considered "essential services" personnel.

Building Evacuation

There are two (2) reasons that can require the evacuation of a building on the TAMUG campus or one of its off-campus facilities.

1. An emergency situation that presents a serious threat of injury, or life to the students, staff, or visitors of TAMUG.
2. A planned operation, or drill for training, or for administrative purposes. In these cases, the TAMUG President and CEO, or his designate, will be the authority to determine the time, date, and conditions for such an event.

Building Evacuation

- A. Building evacuations will occur when a fire alarm sounds and/or upon notification by TAMUG Police.
- B. When the building evacuation alarm is activated, leave by the nearest marked exit and alert others to do the same.
- C. Take all personal belongings with you upon evacuation.
- D. **ASSIST THE DISABLED IN EXITING THE BUILDING!** Remember that elevators are reserved for disabled persons. In residence halls the elevators lock off when the alarm is activated.

Note: Do NOT use the elevators in cases of Fire or Bomb Threat.

- E. Once outside, proceed to a pre-determined mustering point (clear area) that is at least 500 feet away from the affected building. Keep streets, fire lanes, hydrant areas and walkways clear for responding personnel

Campus Evacuation

Campus occupants may be ordered to evacuate the campus in the event of a hurricane/adverse weather conditions, fire, refinery explosion, release of toxic or odorous gas, terrorist threat or attack, bomb threat or any other event that is deemed by the campus leadership to be a clear and present danger to the students, faculty and staff of TAMUG.

The order to evacuate the campus will be given by the Office of the President and CEO at which time the following procedures will be implemented.

General Evacuation Procedures and Guidelines (Campus):

- ✓ Evacuation of the campus will be conducted in a calm and coordinated manner which will be overseen by the Incident Command Team
- ✓ Announcements will be communicated through department heads to their personnel and students, campus AggNews, voice mail and the campus close circuit television channel

- ✓ The Incident Command Team will notify all subordinates of the decision to evacuate campus.
 - Door-to-door announcements will be made in the Residents Halls by Residential Services Staff members.
 - Fliers announcing the evacuation will be left on any door unanswered during the door-to-door walk through.

- ✓ All employees are essential in the Campus Evacuation process and are required to remain at their duty stations until allowed to vacate the campus by their supervisor.

General Evacuation procedures and guidelines:

- Incident Command Team members shall insure that all students, faculty and staff have evacuated the campus
- Personnel responsible for ships and boats shall see that all are secured or relocated and report the completion of this task to the Incident Command
- Employees and students shall report to the Incident Command any special requests for utilities to remain on during the evacuation.
- Building monitors shall report through the chain of command to the Emergency Operations Center after buildings have been cleared of all personnel
- Campus Police shall inspect all accessible areas to insure that all personnel have evacuated. All personnel that have not left the buildings will be escorted out by the Police Officers
- Police Officers shall report to the Police Chief following an inspection of each building. The Police Chief will then notify Emergency Operations Center
- The Mechanical Maintenance Crew in the Facilities Services staff shall turn off all non-essential utilities within each building after evacuations are complete.
 - Exterior lighting around the swimming pool and field areas will be turned off after evacuation is complete.
 - Exterior mechanical room doors shall be secured
 - The Mechanical Maintenance Supervisor shall report to the Facilities Services Director upon completion of these duties
- The Grounds Maintenance Crew in the Facilities Services staff shall make a final check of the grounds and remove and secure all non-stationary items requiring security
 - The Grounds Maintenance Supervisor shall report to Facilities Services Director upon completion of these duties
- The Transportation Department staff shall insure that all emergency vehicles are fueled and given a service check and make sure preparations are made to evacuate students to College Station if needed

- Before departing campus, all employees must complete an Evacuation and Emergency Information Sheet and return to their respective Department Heads or Building monitors. No employee will be permitted to leave campus without completing and returning this form
- Employees should notify family members that the campus is being evacuated before departing
- Office preparations prior to evacuation are as follows:
 - Unplug all electrical appliances
 - Remove and dispose of all perishable items from refrigerator
 - Items should be thrown in campus dumpsters and not trash cans
- Employees with vehicles are asked to share a ride with those who have no vehicles
- Once transportation plans have been finalized, an Evacuation and Emergency Information Sheet has been completed and turned in and approval has been granted by the immediate supervisor, the employee is free to leave campus
- **Evacuation from campus should be along posted evacuation routes:**
 - North on Harborside Drive to Interstate 45 North
 - If Interstate 45 is closed or inaccessible, evacuation should be along South along Harborside Drive to 25th Street. Take a right on 25th and proceed to Seawall Blvd.
 - At Seawall, take a right and proceed West to exist the Island at San Luis Pass.
 - The ferry should not be used as an evacuation route

Student Evacuation Procedures:

- Students may be asked to evacuate the campus at which time the order to evacuate will be disseminated by the Student Affairs Office
- Before departing campus, all students must complete an Evacuation and Emergency Information Sheet and return to Residential Services. No student will be permitted to leave campus without having completed and turned in this form
- Off-Campus students are encouraged to complete an Evacuation and Emergency Information Sheet and leave it in the Student Services Office
- Students should notify family members that the campus is being evacuated before departing
- Residence Hall room preparations prior to evacuation are as follows:
 - Unplug all electrical appliances
 - Clear all balconies and outsider areas of personal belongings
 - Remove and dispose of all perishable items in dorm refrigerator
 - Items should be thrown in campus dumpsters and not hall trash cans

- Students with vehicles are asked to share a ride with those who have no vehicles. If a student can ride with fellow students, please notify Student Affairs of the destination of all vehicle occupants.
- If a student cannot arrange for transportation, TAMUG will provide transportation to the main campus in College Station or other selected evacuation destination
 - Students needing transportation should notify Student Affairs immediately so that arrangements can be made
 - Food and shelter will be provided in College Station for the duration of the evacuation period
 - Transportation will be by campus van or vehicle and will be driven by a campus employee
- Once transportation plans have been finalized, an Evacuation and Emergency Information Sheet has been completed and turned in and parents have been notified, the student is free to leave campus.
- **Evacuation from campus should be along posted evacuation routes:**
 - North on Harborside Drive to Interstate 45 North
 - If Interstate 45 is closed or inaccessible, evacuation should be South along Harborside Drive to 25th Street. Take a right on 25th and proceed to Seawall Blvd.
 - At Seawall, take a right and proceed West to exist the Island at San Luis Pass.
 - The ferry should not be used as an evacuation route

Return to Campus Information for Students, Faculty and Staff

- The media will be asked to announce both the cancellation and resumption of classes.
- Voice mail numbers in College Station and Galveston will be available to provide up-to-date information regarding the re-opening of campus. The campus website will also provide this information:
 - (409) 740-4545
 - (979) 862-8245
 - www.tamug.edu
 - Radio/Television Station
 - KHOU -TV Channel 11
 - KTRK -TV Channel 13
 - KTRH – Radio 740 AM

Fire Emergency

IN ALL CASES OF FIRE, THE TAMUG POLICE DEPARTMENT MUST BE NOTIFIED IMMEDIATELY!

Contact the TAMUG Police at:

Campus phone: ext. 4545

Public phone: 409-740-4545

1. Know the location of fire extinguishers, fire exits, and alarm systems in your area.
2. If a minor fire appears controllable, IMMEDIATELY contact the TAMUG Police. Then promptly direct the charge of the fire extinguisher toward the base of the flame. Never let the fire get between you and an escape route.
3. If an emergency exists, activate the building alarm. CAUTION: IF THE ALARM FAILS TO GO OFF you must report the fire by phone.
4. On large fires that do not appear controllable, IMMEDIATELY notify University Police. Then evacuate all rooms, closing all doors to confine the fire and reduce oxygen – DO NOT LOCK DOORS!
5. When the building evacuation alarm is sounded, an emergency exists. Walk quickly to the nearest marked exit and alert others to do the same.
6. **ASSIST THE DISABLED IN EXITING THE BUILDING! DO NOT USE THE ELEVATORS DURING A FIRE.** Smoke and toxic fumes are the greatest danger in a fire, so stay near the floor where the air will be less toxic.
7. Once outside, move to a clear area at least 500 feet away from the affected building as rapidly as possible. Keep streets, fire lanes, hydrants and walkways clear for emergency vehicles and crews.
8. If requested, assist emergency crews as necessary.
9. An Emergency Site Coordination Post may be set up near the emergency site. Keep clear of the Coordination Post unless you have official business.
10. DO NOT RETURN TO AN EVACUATED BUILDING UNTIL TOLD TO DO SO BY A UNIVERSITY POLICE OFFICER.

Note:

If you become trapped in a building during a fire and a window is available, place an article of clothing (shirt, coat, etc.) outside the window as a marker for rescue crews. If there is no window, stay near the floor where the air will be less toxic. Shout at regular intervals to alert emergency crews of your location. DO NOT PANIC!

Medical Emergency

In the event of a medical emergency on campus or at a University facility, Emergency personnel should be notified immediately.

- Emergency personnel should be notified immediately.
- **For ON CAMPUS EMERGENCIES, DIAL 911**
- **Off Campus Emergencies, Dial 9-911**
- Provide Dispatcher with:
 - Location of emergency
 - Type of injury, if known
 - Brief description of injured person (gender, age, etc.)
 - Render First Aid, if trained
 - Make injured as comfortable as possible
- The accident scene will be secured by responding emergency personnel
- If the accident requires immediate response by TAMUG personnel, the Administration will be notified and the appropriate action taken

Severe Weather (HURRICANE, TORNADO, FLOOD)

Campus occupants may be ordered to evacuate the campus or shelter in place in the event of a hurricane/adverse weather conditions that are deemed by the campus leadership to be a clear and present danger to the students, faculty and staff of TAMUG.

The order to evacuate the campus or shelter in place will be given by the Office of the President and CEO, please follow the campus evacuation procedures or the shelter in place procedures

Workplace Violence or Criminal Behavior

- **IN AN EMERGENCY DIAL EXT. 9-911**
- Campus Police are located in the Facilities Services Building and provides 24-hour help and protection. This service is provided seven days a week on a year-round basis.
- Everyone is asked to assist in making the campus a safe place by being alert to suspicious situations and reporting them promptly.
- ✓ Promptly notify Campus Police at 740-4545 or 771-5185 as soon as possible and report the incident, including the following information:
 - Nature of the incident
 - Location of the incident
 - Description of person(s) involved
 - Description of property involved
- ✓ If you observe a criminal act, or whenever you observe a suspicious person on campus, immediately notify Campus Police and report the incident
- ✓ Assist the officers when they arrive by supplying them with all additional information and ask others to cooperate
- ✓ Should gunfire or discharged explosives hazard the campus, you should take cover immediately using all available concealment. After the disturbance, seek emergency first aid if necessary.
- ✓ What to do if taken hostage:
 - Be patient. Time is on your side. Avoid drastic action.
 - The initial 45 minutes are the most dangerous. Follow instructions, be alert and stay alive. The captor is emotionally unbalanced. Do not make mistakes, which could hazard your well-being.
 - Do not speak unless spoken to; and then only when necessary. Do not talk down to the captor who may be in an agitated state. Avoid appearing hostile. Maintain eye contact with the captor at all times if possible, but do not stare. Treat the captor like royalty.
 - Try to rest. Avoid speculations. Comply with instructions as best you can. Avoid arguments. Expect the unexpected.
 - Be observant. You may be released or be able to escape. The personal safety of others may depend on your memory.
 - Be prepared to answer the police on the phone. Be patient. Wait. Attempt to establish rapport with the captor. If medication, first aid, or restroom privileges are needed by anyone - say so. The captor, in all probability, does not want to harm persons held by him or her. Such direct action further implicates the captor in additional offenses.

Armed Assault

In the event that one or more gunman comes on campus with intent to harm university member (s) for any reason;

A Single gunman looking for a particular target is usually very agitated and unstable. They will harm others that get in their way and may be suicidal. Any witnesses should call 911 as soon as they are aware of the threat and should only attempt to keep the actor in view so that they can report his/her position. If the witness knows how to call ahead of the gunman, they should call in a warning to the building that they are heading towards first, if not, the police department can help with that as they talk with the witness.

- If a building gets a warning call, they should leave the building if they can, if not, they should simply lock the doors and remain out of sight. Someone will come and give the all clear when the situation is over
- Witnesses should remain calm and take notice of the actors dress and appearance, the kind of weapon that they are carrying, etc. This is information that can help save lives if the police can get it quickly enough. The responding officer must be able to quickly acquire the actor's location and accurately identify him in order to protect the rest of the campus
- Officers should attempt to protect the intended target, but they must remember that there are many potential targets in the area that also depend on him for safety. He must not engage in risky behavior, which might eliminate him from protecting everyone else, especially in the early goings before backup can arrive
- Managing the target and other potential targets is just as important as confronting the gunman at times. Extending your opportunity to engage the gunman is the key to successfully getting everyone out of the situation alive. Time is your ally. The more extended the incident, the more time that responders will have to successfully end the situation peacefully and safely.

Multiple gunmen on campus usually indicate an assault on non-specified targets. It may mean Administrators or anyone that may be in charge. It may mean corps members or any student. Or as in Columbine, it could be a wide range of "specific targets". (Jocks, cool kids, certain members of certain groups, etc, that have offended the gunmen in the past

- Officers should once again, approach this situation quietly and unseen if possible. Warning should go out and, the campus should be secured by locking all the doors and trying to evacuate the effected building. The entrance and exits should be secured if possible, to shut off easy access by the intruders
- Officers should try to get as much info on the group as possible and Galveston Swat should be notified of the situation. While the Swat team is assembling, other officers will be arriving on the scene. The initial officer needs to direct their approach so that they are not fired upon and so that the gunmen are not alerted to their arrival
- Any of these threats may be armed with other types of weapons, including but limited to pipe bombs, firebombs, various sharp weapons, etc. Additional weapons might be detected as bags, cases or packages carried by the gunmen. Each incident should be analyzed carefully to determine just what we might be facing, so that we can pass on the information to our backup units and other concerned parties. The best way to get this information to a central command is to call everything into dispatch or designated command post
- Police Supervisory personnel will establish a command post as soon as possible in order to direct the situation and collect as much intelligence as possible on the gunmen. Once Galveston Swat arrives, they will take over the situation. TAMUG supervisors will act as advisory consultants to the Swat team with significant ability to influence actions on campus. (Hopefully the ability to make things easier and cause less damage to the campus)
- Officers will contain and isolate hostage situations, while evacuating all nearby University members. Galveston Swat will be called and they will address the problem. TAUMUG police supervisors will be advisors.

Command Procedures for Threat to Campus

1. Threat card filled out during a call
2. Person receiving threat calls 9-911
3. Person receiving threat calls campus police X4545
4. Person receiving threat finds and informs their supervisor and stands by for instructions from the President and CEO
5. TAMUG Police calls President and CEO or delegate in charge, then begins coordination with city emergency responders
6. President sends campus wide preliminary message (or asks delegate to call for him- Emergency Response Coordinator most likely)
7. President decides on location for incident command (most likely OCSB or Waterfront Operations bldg. 3003)
8. President contacts (or asks delegate to call for him- Emergency Response Coordinator or Executive Administrative Coordinator most likely) incident command members to mobilize (notified via Sea Aggie Alert, Email List, Phone Call)
9. Group convenes and decides course of action depending on situation and threat
 - will campus immediate evacuate?
 - will campus lock-down?
 - select message to distribute to campus (Sea Aggie Alert, Website, CIS distribution)
 - contact appropriate city officials if needed (Police, City and County EOC)
 - Will full Emergency Operations Center activate/set up (chose location for this- OCSB, CLB, Ship, Waterfront, or alternate safe location)
 - Call President TAMU with situation report.

Campus Lockdown Procedures

When a crisis or emergency situation on campus warrants immediate lockdown of the campus, the safest method to protect campus occupants will be to take shelter inside a campus building and await further instructions.

The order to lockdown the campus or campuses will be given by the Office of the President and CEO. In the event there is an emergency in progress, the Campus Police

may take immediate action to safeguard the campus community by calling for the lockdown of campus(es) through Sea Aggie Alert and established police procedures while taking steps to notify the administration of the crisis or emergency situation. If the order to lock down the campus is given the following procedures will be implemented:

- An Sea Aggie Alert message will be issued immediately by the Emergency Response Coordinator or the next administrator in the Sea Aggie Alert Chain of Action providing specific instructions regarding the crisis and how campus community members are to respond (additional notification systems such as use of office phones and mounted speakers are in the process of being implemented).
- The Campus Police will respond to the crisis scene and provide a threat assessment to the President and CEO or administrator in charge. Should the situation warrant immediate additional assistance, the Campus Police will call in Galveston police and fire by radio and follow established emergency procedures.
- The campus building proctors will also be notified via Sea Aggie Alert to alert their building occupants of the crisis or emergency situation and what should be done to remain safe.
- Appropriate action will be taken by the Campus Police and TAMUG administration based on the threat assessment provided by the Campus Police and any Incident Command Team member responding on-site to the crisis.
 - The President and CEO will activate the Emergency Communication Plan and Emergency Operations Center
 - All campus community members will move to the nearest room, take cover and stay low.
 - Doors and windows will be locked and opened only to students and staff seeking safety or to the police.
 - Campus community members will remain quiet and shut off all audio-visual equipment.
 - Faculty will be responsible for providing leadership and maintaining calmness in the classrooms.
 - The campus will remain in the lockdown mode until an all-clear signal is given by the Campus Police or TAMUG administration.
 - Once the all-clear signal has been communicated via Sea Aggie Alert, verbally and by other means across campus, the Office of Student Affairs will commence notifying students' parents as appropriate. The Director of Media Relations and Communications will provide a scripted message approved by the President and CEO or next highest ranking Executive Team member that will be communicated to the parents and family of the students.

- All campus resources necessary will be made available to the Campus Police, TAMUG administrators and responding emergency personnel to resolve the crisis.

Terrorist Threat / Attack

Immediate Securing of Campus

In the event of a terrorist attack or threat to the immediate area and conditions do not warrant or allow evacuation from campus, the campus will be secured to prevent any entrance or exist to the campus until the incident has been resolved.

Command Procedures for Threat to Campus

1. Threat card filled out during a call
2. Person receiving threat calls 9-911
3. Person receiving threat calls campus police X4545
4. Person receiving threat finds and informs their supervisor and stands by for instructions from the President and CEO
5. TAMUG Police calls President and CEO or delegate in charge, then begins coordination with city emergency responders
6. President sends campus wide preliminary message (or asks delegate to call for him- Emergency Response Coordinator most likely)
7. President decides on location for incident command (most likely OCSB or Waterfront Operations bldg. 3003)
8. President contacts (or asks delegate to call for him- Emergency Response Coordinator or Executive Administrative Coordinator most likely) incident command members to mobilize (notified via Sea Aggie Alert, Email List, Phone Call)
9. Group convenes and decides course of action depending on situation and threat
 - will campus immediate evacuate?
 - will campus lock-down?
 - select message to distribute to campus (Sea Aggie Alert, Website, CIS distribution)
 - contact appropriate city officials if needed (Police, City and County EOC)
 - Will full Emergency Operations Center activate/set up (chose location for this- OCSB, CLB, Ship, Waterfront, or alternate safe location)
 - Call President TAMU with situation report.

The order to secure the campus will be given by the Office of the President and CEO at which time the following procedures will be implemented.

Securing Campus

- No student, faculty or staff member will be allowed to leave campus until released by the President and CEO or designee
- The Incident Command Team will report to the Emergency Operations Center to coordinate campus operations
 - Each Building Monitor will be contacted by an Incident Command Team member with instructions to secure his/her building by following Shelter in Place procedures
 - Additional information will be provided as it becomes available
 - College Station will be notified of the incident and the campus' actions
 - All Campus Police Officers will be called to duty immediately
- Campus Police will be dispatched to the main entrance of campus and to the intersection of Seawolf Parkway and Clipper Road
 - Campus Police will remain in radio contact with the Police Chief and Emergency Operations Center
- Campus vehicles will be used as barriers to block the entrance and exit to the campus at both locations
 - Additional campus vehicles will be provided by the Facilities Services if necessary to provide a more secure parameter
 - Gate access to resident hall parking lots will be locked
- Campus Police will coordinate communications with the Galveston Office of Emergency Management to ensure traffic is restricted on to Pelican Island from Harborside Drive
- Remaining Campus Police Officers will continuously patrol interior of campus
- Waterfront Operations Manager will secure all boats in Small Boat Basin and monitor the Boat Basin perimeter
- T/S General Rudder personnel and duty watch will provide watch and report to the Emergency Operations Center
- T/S General Rudder Shelter in Place procedures will be implemented
- The Mechanical Maintenance in the Facilities Services staff shall turn off all non-essential utilities within each building as directed by the Emergency Operations Center through the Facilities Services Director
 - Exterior mechanical room doors shall be secured
 - The Mechanical Maintenance Supervisor shall report to the Facilities Services Director upon completion of these duties
- The Grounds Maintenance in the Facilities Services staff shall make a check of the grounds and remove and secure all non-stationary items found
 - The Grounds Maintenance Supervisor shall report to Facilities Services Director upon completion of these duties
- The Transportation Department staff shall insure that all vehicles are fueled and prepared for immediate evacuation assistance if necessary

Securing of the Waterfront Operations and T/S General Rudder

- In the event of a terrorist threat/attack from the Master of the T/S General Rudder will be responsible for invoking the Facilities Security Plan regarding the protection of the T/S General Rudder as outlined in the FSP on file with the U.S. Coast Guard.
- Campus Police will coordinate communications with the Galveston Office of Emergency Management to ensure traffic is restricted on to Pelican Island from Harborside Drive
- Waterfront Operations Manager will secure all boats in Small Boat Basin and monitor the Boat Basin perimeter
- T/S General Rudder personnel and duty watch will provide watch and report to the Emergency Operations Center

Shelter In Place

- The Office of the President and CEO will issue the directive to shelter in place in the event of a terrorist attack or threat to the immediate area. Campus occupants will take shelter inside a campus facility

Employees:

- Move indoors or remain there – avoid windows and areas with glass
- If available, take a radio or television to the room to track emergency status
- Keep telephone lines free for emergency responders, do not call 911 for information
- If hazardous materials are involved,
 - Turn off all ventilation systems and close all inlets from the outside
 - Select a room(s) which is easy to seal and, if possible, has a water supply and access to restrooms
 - If you smell gas or vapor, hold a wet cloth loosely over your nose and mouth and breath through it in as normal a fashion as possible

Bomb Threats

This hazard is not limited to major universities, or those located in major metropolitan areas, all Universities are subject to this type of hazard. The stress and frustration that can mount on an individual(s) in a college atmosphere are fertile grounds for the development of this type of hazard and should not be dismissed. The effect of this type of hazard has far more reaching effects on a smaller college or university than a larger one, simply for the closeness of the people in the community itself.

It is imperative that all faculty, staff, and students of TAMUG know how to respond to a bomb threat or hostage situation in the event one or both should occur. These procedures are designed to educate and train all faculty, staff, and students to respond calmly, quickly, and appropriately to the hazard.

The individual receiving the bomb threat is responsible for carefully recording the information and then immediately notifying their supervisor and the TAMUG Police Department.

RECEIVING THE THREAT

1.) In the event of a call, obtain all the information possible from the caller. Be firm, calm, speak quietly and request the following information:

If a Bomb Threat is Received by Phone, Take the Following Actions

- Record any information regarding the bomb threat and have it available for the police when they arrive.
- If your phone has a display, copy the number or letters on the window display.
- 1.) Record as much information as possible.
 - 2.) Request the name of the building where the threat is located.
 - 3.) Request the exact location of the device.
 - A.) What floor?
 - B.) What part of the building; north, south, etc.
 - C.) Type of device.
 - D.) Detonation time.
 - E.) Description of the package.

Important note:

It is crucial that you note the following information. These small details could very well be the ones that will save a life and bring a safe and successful conclusion to the hazard.

- 1.) Gender of caller.
 - 2.) Accents.
 - 3.) Background noise.
 - 4.) Speech pattern.
 - 5.) Time of call
 - 6.) Age of caller
- 4.) Advise the caller that the building is occupied by people and the detonation of a bomb could result in the death or serious injury to many people.
 - 5.) Call the TAMUG University Police at:

Campus phone: ext. 4545
Public phone: 409-740-4545

- Give the phone number and location of the phone that received the bomb threat.
- When safe to do so, call Campus Police at 4545 or 409-740-4545 for further assistance.

IF A BOMB THREAT IS RECEIVED BY NOTE, TAKE THE FOLLOWING ACTIONS

- Do not handle the note.
- Call 911 immediately.
- When safe to do so, call Campus Police at 4545 or 409-740-4545 for further assistance.

If a Suspicious Object or Package is Found, Take the Following Actions:

- Do not touch or move suspicious object, or package.
- Call 911 immediately.
- When safe to do so, call Campus Police at 4545 or 409-740-4545 for further assistance.
- Campus Police and/or other emergency personnel will evacuate the immediate area and stop anyone from entering the area where the object or package is located.

If a Suspicious Package Arrives in the Mail, Take the Following Actions

- Do not handle suspicious package.
- Call 911 immediately.
- When safe to do so, call Campus Police at 4545 or 409-740-4545 for further assistance.
- Campus Police and/or other emergency personnel will evacuate the immediate area and stop anyone from entering the area where the object or package is located.

Signs of a Suspicious Package

- No return address.
- Excessive postage.
- Stains.
- Strange odor.
- Strange sounds.
- Unexpected delivery.

- Physical appearance.

Command Procedures for Threat to Campus

1. Threat card filled out during a call
2. Person receiving threat calls 9-911
3. Person receiving threat calls campus police X4545
4. Person receiving threat finds and informs their supervisor and stands by for instructions from the President and CEO
5. TAMUG Police calls President and CEO or delegate in charge, then begins coordination with city emergency responders
6. President sends campus wide preliminary message (or asks delegate to call for him- Emergency Response Coordinator most likely)
7. President decides on location for incident command (most likely OCSB or Waterfront Operations bldg. 3003)
8. President contacts (or asks delegate to call for him- Emergency Response Coordinator or Executive Administrative Coordinator most likely) incident command members to mobilize (notified via Sea Aggie Alert, Email List, Phone Call)
9. Group convenes and decides course of action depending on situation and threat
 - will campus immediate evacuate?
 - will campus lock-down?
 - select message to distribute to campus (Sea Aggie Alert, Website, IS distribution)
 - contact appropriate city officials if needed (Police, City and County EOC)
 - Will full Emergency Operations Center activate/set up (chose location for this- OCSB, CLB, Ship, Waterfront, or alternate safe location)
 - Call President TAMU with situation report.

Evacuation Procedures

- All persons shall move towards the nearest marked exit in a safe orderly fashion, if the exit is blocked move to the next nearest marked exit.
- **Wheelchair occupants or persons with mobility impairments have first priority for building elevators if elevators are operable and safe for use.**
- **If it is safe to do so and time permits**, take briefcases, purses, and jackets with you.
- **If it is safe to do so and time permits**, close classroom doors, lock file cabinets and office doors as you calmly move to the nearest exit.
- **If it is safe to do so and time permits**, secure all hazardous materials or equipment, close all hoods and drafts.
- While evacuating, take care not to push, shove, or accidentally knock others down.
- If you see or know of someone having trouble evacuating and it is unsafe for you to help, **please notify emergency personnel on site or call 911; you may also call the TAMUG Police at 4545 or 409-740-4545 . Make sure to give the exact location of the person(s) and the reason(s) why they are having trouble evacuating.**

Should the threat be determined credible and outside the resource capability of the University, the TAMUG Police Department will notify the Galveston PD through the 911 call center and radio. The 911 call center will ensure that the appropriate support agencies will be dispatched to assist the University with the hazard.

The affected building or the entire University will be evacuated as determined by the ICT and by the authority of the President and CEO or delegate. Follow the procedures located in the Evacuation of Campus section of this document.

Hostage Situation

In the event of a hostage situation it is important that the TAMUG Police are quickly notified. Upon the receipt of notification, the following team will be assembled.

- **TAMUG Police Chief**

The Police Chief or a designated member of their staff will be responsible for serving as a liaison to the assisting Police Departments.

- **Director of Facilities Services**

The Director of Facilities Services shall ensure that the Police Department(s) has access to accurate building plans or drawings.

- **Director of Human Resources**

The Director of Human Resources shall be responsible for arranging counseling for the hostage(s) and affected faculty, staff, students, or rescue personnel.

The faculty, staff, or student who recognizes or is notified of a hostage situation will call the University Police at:

Campus phone: ext. 4545
Public phone: 409-740-4545

Caller will need to provide the following information:

- The caller's name, location, and telephone number.
- Number of persons being held hostage.
- Location of the hostages.
- Condition of the hostages.
- Demands of the hostage takers.
- Physical description of the hostage takers (sex, race, age, height, weight, build, glasses, facial hair, hair color, hat, and clothing color and type), if possible.
- Description of the hostage taker's vehicle, if applicable.

1.) The Police dispatcher will initiate the Emergency notification procedure and make any additional calls as necessary.

2.) Faculty, staff, and/or students directly affected by the hostage situation should take their cue from the hostage takers. If the opportunity arises whereby escape can be accomplished without creating greater harm to themselves or others, then they should use their own discretion.

TAMUG University does not recommend, endorse, or imply that any hostage take matters onto their own that could endanger themselves or others.

3.) Faculty, staff, and/or students who have escaped or are not affected should remain away from the location and out of sight of the hostage takers.

4.) The TAMUG Police will establish an Emergency Site Command Post (ESCP). The Directors of Facilities Services and Human Resources will report to the ESCP to provide immediate information about the facility or persons involved.

5.) The TAMUG Police Chief may request the assistance of the Galveston Police (Sheriff) and or State DPS and its Hostage Crisis Team. Upon their arrival, the Police will in conjunction with the TAMUG Police Department resolve the situation. The TAMUG Police will then act in a supporting role to the responding police departments.

- 6.) The Director of Facilities Services will ensure the Police have accurate drawings or blueprints of the affected building(s).
- 7.) The Director of Communication and Media Relations will provide the public notice as directed by the ICT.
- 8.) In coordination with the Commanding Police Department the University/designee/ or supervisor of the area affected will consider the following:
 - Evacuating the entire facility to assembly areas or an offsite location.
 - Conducting a media briefing offsite if the Commanding Police Department's spokesperson cannot conduct one.
 - Providing a location for the families of the hostages to congregate for counseling.
- 9.) The Director of Human Resources will provide or arrange counseling for faculty, staff, students, and their families if needed.

Command Procedures for Threat to Campus

1. Threat card filled out during a call
2. Person receiving threat calls 9-911
3. Person receiving threat calls campus police X4545
4. Person receiving threat finds and informs their supervisor and stands by for instructions from the President and CEO
5. TAMUG Police calls President and CEO or delegate in charge, then begins coordination with city emergency responders
6. President sends campus wide preliminary message (or asks delegate to call for him- Emergency Response Coordinator most likely)
7. President decides on location for incident command (most likely OCSB or Waterfront Operations bldg. 3003)
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 - will campus immediate evacuate?
 - will campus lock-down?
 - select message to distribute to campus (Sea Aggie Alert, Website, CIS distribution)
 - contact appropriate city officials if needed (Police, City and County EOC)
 - Will full Emergency Operations Center activate/set up (chose location for this- OCSB, CLB, Ship, Waterfront, or alternate safe location)

- Call President TAMU with situation report.

Civil Disturbance or Demonstration

Most campus demonstrations such as marches, meetings, picketing and rallies will be peaceful and non-obstructive. Facilities utilized for campus demonstrations must be reserved in accordance with applicable university policies and procedures. If any of the conditions stated below exist, TAMUG Police should be notified and will be responsible for contacting and informing the President and CEO.

The following conduct will not be permitted:

1. **INTERFERENCE** with the normal operations of the University.
2. **PREVENTION** of access to, or egress from, offices, buildings or other University facilities including the use of facilities which have been reserved according to the University's normal room or space scheduling system.
3. **THREAT** of physical harm to persons or damage to University facilities.

Depending on the nature of the demonstration, the appropriate procedures listed below should be followed:

1. PEACEFUL, NON-OBSTRUCTIVE DEMONSTRATIONS

- A. Generally, demonstrations of this kind should not be interrupted. Demonstrators should not be obstructed or provoked and efforts should be made to conduct university business as normally as possible.
- B. If demonstrators are asked to leave but refuse to leave by regular facility closing time:
 - 1) Arrangements will be made by the TAMUG Chief of Police to monitor the situation during non-business hours, or
 - 2) Determination will be made to treat the violation of regular closing hours as a disruptive demonstration. (See Next Section, Non-Violent Disruptive Demonstrations)

2. NON-VIOLENT DISRUPTIVE DEMONSTRATIONS

- A. In the event that a demonstration blocks access to university facilities or interferes with the operation of the University:
 - 1) Consideration will be given to videotaping the demonstration. Demonstrators may be asked by the President or his/her designee to terminate the disruptive activity.
 - 2) The TAMUG Police will be informed that the demonstrators were directed to terminate the disruptive activity.
 - 3) If the demonstrators persist in the disruptive activity they will be apprised that failure to discontinue the specified action within a specified length of time may result in disciplinary action or arrest including suspension, expulsion or possible intervention by civil authorities.
 - 4) Efforts should be made to secure positive identification of demonstrators in violation to facilitate later testimony, including videotape and photographs if deemed advisable.

- 5) After consultation with the President or designee, the Chief of TAMUG Police, will take appropriate action.
- 6) If determination is made to seek the intervention of civil authorities, the demonstrators should be so informed. Upon arrival of the Police Department, the remaining demonstrators will be warned of the intention of arrest.

3. VIOLENT, DISRUPTIVE DEMONSTRATIONS

A. In the event that a violent demonstration in which injury to persons or property occurs or appears imminent, the President and Assistant Vice President of Student Affairs will be notified immediately.

During Business Hours

- 1) TAMUG University Police will contact the President and Vice President of Student Affairs or designee.
- 2) The Vice President for Student Affairs or designee will advise other appropriate officials.

If appropriate, a university photographer(s) will be contacted and/or video taping equipment obtained and used and/or surveillance

After Business Hours

- 1) TAMUG Police should be notified immediately of the disturbance.
- 2) TAMUG Police will investigate the disruption and notify the Chief of TAMUG Police.

Chemical/Radiation Spill

- Any spillage of a hazardous chemical or radioactive material is to be reported to Campus Police or the Facilities Services at 740-4545 or 740-4547
- When reporting the incident, be specific about the nature of the involved material and the exact location. Campus Police will contact the Facilities Services who will then notify and dispatch appropriate Hazardous Materials (HAZMAT) team personnel
- The key person on-site should evacuate the affected area AT ONCE and seal it off to prevent further contamination of other areas until the arrival of the Campus Police and/or official personnel.
- Anyone who may be contaminated by the spill is to avoid contact with others as much as possible. Remain in the vicinity and give names to Campus Police. Required first aid and clean up by specialized authorities should be started at once.
- If an emergency exists, ACTIVATE the building alarm. PRECAUTION: ALSO report the emergency by telephone.
- When the building evacuation alarm is sounded or an emergency exists: walk quickly to the nearest marked exit and ask others to do the same.
- ASSIST THE HANDICAPPED IN EXITING THE BUILDING!
Remember that elevators are reserved for handicapped persons. DO NOT USE ELEVATORS IN CASE OF FIRE. Do not panic. Remain calm.
- Once outside, move to a clear area that is at least 500 feet away from the affected building(s). Keep streets, fire lanes, hydrants and walkways clear from emergency vehicles and crews. Know your area assembly points.
- If requested, assist emergency crews as necessary.
- An Emergency Operations Center may be set up near the disaster site. Keep clear of the Command Center unless you have official business.
- DO NOT RETURN TO AN EVACUATED BUILDING unless told to do so by a University official.

Chemical Leak at nearby Refinery

Campus Evacuation during a chemical leak

In the event of a chemical leak at a nearby refinery, campus occupants may be ordered to evacuate the campus

The order to evacuate the campus will be given by the Office of the President and CEO please follow the campus evacuation procedures

Shelter in place during a chemical leak

If conditions created by a chemical leak at a nearby refinery do not allow for the evacuation of campus, the safest method to protect campus occupants may be to take shelter inside a campus building and await further instructions

The order to shelter in place will be given by the Office of the President and CEO at which time the following procedures will be implemented.

Employees:

- ✓ Move indoors or remain there – avoid windows and areas with glass
- ✓ If available, take a radio or television to the room to track emergency status
- ✓ Keep telephone lines free for emergency responders, do not call 911 for information
- ✓ If hazardous materials are involved:
 - Turn off all ventilation systems and close all inlets from the outside
 - Select a room(s) which is easy to seal and, if possible, has a water supply and access to restrooms
 - If you smell gas or vapor, hold a wet cloth loosely over your nose and mouth and breath through it in as normal a fashion as possible

Students:

- ✓ Return to resident hall room - avoid windows and areas with glass
- ✓ If available, take a radio or television to the room to track emergency status
- ✓ Keep telephone lines free for emergency responders, do not call 911 for information
- ✓ Wait for Resident Advisor or campus authority to provide further instructions
- ✓ If hazardous materials are involved,
 - Turn off all ventilation systems and close all inlets from the outside
 - Select a room(s) which is easy to seal and, if possible, has a water supply and access to restrooms
 - If you smell gas or vapor, hold a wet cloth loosely over your nose and mouth and breath through it in as normal a fashion as possible

Central Shelter In Place Location

- ✓ Should an incident occur that requires all campus occupants to shelter in place in a central location, the Incident Command will notify each Department Head to have all students, faculty and staff under their area of responsibility or in the building in which they are located to report to the P.E. Facility immediately.
- ✓ Once all campus occupants have reported to and have been accounted for in the P.E. Facility, further instructions will be provided by the Incident Command Leader

Return to Campus Information for Students, Faculty and Staff

- The media will be asked to announce both the cancellation and resumption of classes.
- Voice mail numbers in College Station and Galveston will be available to provide up-to-date information regarding the re-opening of campus. The campus website will also provide this information:
 - (409) 740-4545
 - (979) 862-8245
 - www.tamug.edu

- Radio/Television Station
 - KHOU -TV Channel 11
 - KTRK -TV Channel 13
 - KTRH – Radio 740 AM

Hazardous Materials Spill

In the event hazardous materials are involved:

- The Facilities Services will be instructed to turn off all ventilation systems and close all inlets from the outside.
 - All campus community members will be instructed to stay inside and away from windows and doors until further notice.
 - The Campus Police will notify the Galveston Fire Department and Haz Mat response team of the spill.
- The campus will remain in the lockdown mode until an all-clear signal is given by the Campus Police or Campus Administrator.
- All required follow-up reports will be prepared and submitted under the direction of the Campus Safety Officer.

Utility Failure

In the event of an electrical power outage, the Incident Command Team (ECT) shall be assembled. All or portions of the Campus Emergency Response Team (CERT) may be activated, depending on the duration, size, and scope of the outage.

In the event of partial power loss to a portion of the TAMUG campus, it may become necessary to shut down power to the entire TAMUG campus in order to restore power. It is important that all personnel that will be affected be notified of this procedure, should the need arise. The use of portable generators may need to be utilized for the protection of lab animals, freezers, or research projects that may be jeopardized by the loss of electrical power.

Procedures

In response to any electrical outage, regardless of the duration:

- 1) Facilities and Residence Hall staff will check all impacted buildings to ensure that there is no one trapped in any elevators.
- 2) Residence Life personnel will identify the possible location of all persons with known disabilities and/or other impairments in their respective building.
- 3) Residence Hall staff will check on all faculty, staff, and students who require the use of any electrical device for basic needs and mobility campus-wide.
- 4) During the outage Facilities personnel must provide timely updates and reports to the EOC as requested. These reports shall enable any affected faculty and researchers to adjust or cancel classes and protect any vulnerable research.
- 5) Upon the restoration of electrical power, Facilities personnel will conduct building inspections to verify that all systems are restored and functioning properly. They will also clear the building for re-entry by all persons.

Power Outage Notification

- 1) In the event of a major utility failure occurring during regular working hours (8:00 a.m. through 4:00 p.m., Monday through Friday), immediately notify the TAMUG Police along with Facilities and Planning at:

TAMUG Police

Campus phone: ext. 4545
Public phone: 409-740-4545

Facilities Services

Campus phone: ext. 4752
Public phone: 409-740-4752

If there is potential danger to building occupants, or if the utility failure occurs **after hours, weekends or holidays**, notify the TAMUG Police at:

Campus phone: ext. 4545
Public phone: 409-771-5185

- 2) In the event of an electrical power outage, be aware that PMEC, CLB, and OCSB have emergency power and lighting and therefore can be used as a staging area for affected individuals.
- 3) If a vapor, fume, or gas leak is apparent, leave the area immediately. Post a DO NOT ENTER sign on all doors. Be sure police are aware of the situation.
- 4) If an emergency exists, activate the building alarm. CAUTION: If the alarm fails to go off, report the emergency by telephone.
- 5) All building(s) evacuations will occur when the alarm sounds continuously and/or when an emergency exists.

ASSIST THE DISABLED IN EXITING THE BUILDING! Remember that elevators are reserved for the handicapped person's use. **DO NOT USE ELEVATORS IN CASE OF FIRE.**

- 6) If requested, assist the emergency crews as necessary.
- 7) An Incident Command Post (ICP) may be set up near the emergency site. Keep clear of the Coordination Post unless you have official business.
- 8) DO NOT RETURN TO AN EVACUATED BUILDING until told to do so by a TAMUG Police Officer.
- 9) If possible check elevators to be sure no one is trapped. If people are trapped, notify the TAMUG Police.

T/S General Rudder Emergency

T/S General Rudder Emergency – At Sea

In the event of an emergency or accident involving the students and crew aboard the TS General Rudder while at sea or in port, the campus will immediately enact the following procedures:

Securing Campus

- If the situation warrants, the order to secure the campus will be given by the Office of the President and CEO
 - This order will be given only if there is a perceived threat to the campus associated with the emergency or accident on the T/S General Rudder (i.e. terrorist attack/threat).
- No student, faculty or staff member will be allowed to leave campus until released by the President and CEO or designee
- The Incident Command Team will report to the Emergency Operations Center to coordinate campus operations and campus response
 - College Station will be notified of the incident and the campus' actions
 - All Campus Police Officers will be called to duty immediately
- Campus Police will be dispatched to the main entrance of campus and to the intersection of Seawolf Parkway and Clipper Road
 - Campus Police will remain in radio contact with the Police Chief and Emergency Operations Center

Communications

Coast Guard and Galveston Emergency Management

- The campus response to the emergency will be coordinated by the Incident Command Team with the U.S. Coast Guard and local law enforcement officials

Parent Notification of On-Campus Students

- Parents of students on campus will be notified following a report from Campus Police that the campus is secured and all occupants are accounted for
- Notification will be conducted by the Office of Student Affairs
- Parents will be instructed to contact their child in their residence hall rooms or through the main Emergency Operations Center number
- If necessary, evacuation of the campus will commence according to campus shelter in place and evacuation procedures following an assessment of the situation by the Incident Command Team at which time the order to evacuate will be given by the Office of the President and CEO

Initial Notification of Family Members of Students Aboard T/S/ General Rudder

- Family members of students aboard the T/S General Rudder will be notified by the Office of Student Affairs as soon as information is available
 - A list of students and personnel on board will be obtained from the Maritime Program Office or Campus Police
- In the event of a death or hospitalization, notification will be made to the family/families affected, by the President and CEO or designee
- Family members will be kept informed by the Incident Command Team as much as possible
- If the family/families of the individuals involved in the emergency reside out of town, notification is appropriate by law enforcement agency with jurisdiction. Simultaneous telephone contact by the Incident Command Team should coincide with the notification

Family Notification of Employees aboard T/S General Rudder

- Family members of employees aboard the T/S General Rudder will be notified by the Office of Human Resources as soon as information is available
 - A list of personnel on board will be obtained from the Maritime Program Office or Campus Police
- Campus employees will be allowed to contact their families following a report from Campus Police that the campus is secured and all occupants are accounted for
- Information concerning the emergency will be posted on the TAMUG website and local media sources as information becomes available:
 - www.tamug.edu
 - Radio/Television Station Contacts:
 - KHOU -TV Channel 11
 - KTRK -TV Channel 13
 - KTRH – Radio 740 AM

Boating Emergency Procedures

In the event of an emergency or accident involving the use of a campus boat(s) the campus will enact the following procedures:

- Emergency personnel should be notified immediately.
- **For ON CAMPUS EMERGENCIES, DIAL 911**
- **Off Campus Emergencies, Dial 9-911**
- Provide Dispatcher with:

- Location of emergency
 - Type of injury, if known
 - Brief description of injured person (gender, age, etc.)
 - Render First Aid, if trained
 - Make injured as comfortable as possible
- The accident scene will be secured by responding emergency personnel
 - If the accident requires immediate response by TAMUG personnel, the Administration will be notified and the appropriate action taken

Boating Responsibility

- It is the responsibility of all vessel Master / Operators to abide by the Waterfront Operations Department Operations and Safety Procedures located online at;

<http://www.tamug.edu/waterfrontops/Documents/Final%20Draft%20Operations%20and%20Safety%20Procedures%2007282010.pdf>

Communications

- **Coast Guard and Local Law Enforcement**
 - The campus response to a boating emergency will be coordinated by the Incident Command Team with the U.S. Coast Guard and local law enforcement officials
- **Parent Notification of On-Campus Students**
 - Parents of students on campus will be notified immediately following a report from Campus Police that the emergency has been addressed and all parties involved are accounted for
 - Students with cell phones will be asked to refrain from contacting family members until the full nature of the emergency has been assessed and the security of the campus ensured
 - Notification will be conducted by the Office of Student Affairs
- **Initial Notification Of Family Members**

- Family members of students involved in the emergency will be notified by the Office of Student Affairs as soon as information is available
 - A list of students and personnel on board will be obtained from the Float Plan by Campus Police
- In the event of a death or hospitalization, notification will be made to the family/families affected, by the President and CEO or designee
- Family members will be kept informed by the Incident Command Team as much as possible
- If the family/families of the individuals involved in the emergency reside out of town, notification is appropriate by law enforcement agency with jurisdiction. Simultaneous telephone contact by the Incident Command Team should coincide with the notification
- Information concerning the emergency will be posted on the TAMUG website and local media sources as information becomes available:
 - www.tamug.edu
 - Radio/Television Station Contacts:
 - KHOU -TV Channel 11
 - KTRK -TV Channel 13
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Immediate Support Services

The Siebel Building will be used for a private area for families to gather following initial notification and upon arrival to campus. Access to the second floor will be maintained by Campus Police

Pandemic Health Hazard Response

Background

Pandemic Influenza emergencies are not new to the world. During the last century alone, three pandemics and several “pandemic threats” occurred. The pandemic flu of 1918, known as the Spanish Flu, has been cited as the most devastating epidemic in recorded world history and is suspected of killing more than 20 million people-- more than the total number killed during World War I. It is believed that 20-40% of the world’s population was infected with this virus.

A pandemic flu emergency can be described as an outbreak of influenza occurring over a wide geographic area and affecting an exceptionally high proportion of the population, in multiple continents. This type of flu is easily transmitted from one human to another. It will most likely be transmitted through touch and the aerosolization of lung and nasal fluids, i.e. coughing and sneezing. However, it also can spread through contact with contaminated surfaces. The factors that separate a pandemic flu from ordinary flu are the level of virulence and the number of persons infected. During a pandemic flu, approximately 40% of the population may become infected. The number of deaths will be a function of the spread of the disease and how serious the disease is in humans.

Major Planning Assumptions

- A pandemic influenza outbreak will result in the rapid spread or infection throughout the world.
- The pandemic influenza virus will affect the population in multiple waves.
- The pandemic influenza attack rate may affect 40% of the University student population. Illness rates may be higher with school-aged children and middle aged adults (25-40).
- Populations most at-risk for severe illness from the current H1N1 are: pregnant women, all people between 6 months and 24 years old, health care providers and emergency medical services personnel, people between 25 and 64 years old with health conditions associated with higher risk of medical complications from influenza, and people who live with or provide care for infants younger than 6 months.
- The number of ill requiring medical care may overwhelm the local health care system.
- The demand for home care and social services will increase dramatically.
- Vaccines for Pandemic Influenza strains will not be immediately available and may require an additional 4-6 months. It is important to note that Seasonal Influenza vaccine is not protective against the current pandemic influenza strain (H1N1). Therefore, protection from Pandemic Influenza can only be obtained through a separate pandemic influenza immunization.
- Absenteeism may be up to 40% (or higher in certain professions). With respect to public schools, the state may set arbitrary rates of absenteeism as triggers for the need to close a local educational facility.
- There may be a significant disruption of public and privately owned critical infrastructure including transportation, businesses, utilities, public safety, and communications.
- External resources may be exhausted, increasing the reliance on internal resources to solve local problems.

- The implementation of quarantine measures within populations will be a decision of federal, state and local officials.

Selected Definitions Related to Pandemic Influenza

- 1) Community Disease Control Measures – Practices in public health that aim to reduce disease exposure within the population (e.g., social distancing)
- 2) Contact – A person who has been exposed to an influenza case in some way during the infectious Period, but who has not become ill.
- 3) Emergency Operations Center – A command and control location where people gather to perform sustained emergency management operations for an organization.
- 4) Epidemic – An excessive occurrence of a disease in a population.
- 5) Executive Management Team – The senior management /leadership of the local Texas A&M system member.
- 6) Incubation Period – The time from exposure to an infectious disease to symptom onset. The Incubation period for influenza is usually 2 days but can vary from 1 to 5 days.
- 7) Infection Control Measures – Actions taken to decrease the risk for transmission of infectious agents in health care settings (e.g., stay at home).
- 8) Influenza-like-illness – an individual with the following symptoms: Fever 100° degrees Fahrenheit or higher, AND cough, AND/OR sore throat (CDC case definition, accessed 10/28/2009)
- 9) Isolation – The separation and restriction of movement of people with a specific communicable disease to contain the spread of that illness to susceptible people.
- 10) Pandemic – An epidemic on a world-wide scale.
- 11) Pandemic Influenza - A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time (WHO – accessed 10/29/09). Currently the strain has been identified as H1N1.
- 12) Personal Protective Equipment (PPE) – Barrier (e.g., masks, gloves, gowns) protection to be used by an individual to prevent disease transmission.

- 13) Prophylactic Drugs – Drugs used to prevent disease, such as antivirals.
- 14) Quarantine – Measures to separate and restrict movement of well people who may have been exposed to an infectious agent, but who are not ill at this time.
- 15) Seasonal Influenza – Contagious respiratory illness caused by influenza viruses, affecting 5-20% of the US population annually and causing 200,000 hospitalizations and 36,000 deaths (CDC website).
- 16) Surge Capacity – The accommodation to transient sudden rises in demand for services following an incident. It is the ability of a health system to expand beyond normal operations to meet a sudden increased demand for service.

The Texas A&M University System Pandemic Influenza Planning Emergency Response Levels

Currently, epidemic phase and alert status recommendations of the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) do not address specific actions needed at the local level for of the Texas A&M System, nor do they effectively deal with issues related to the severity of the disease. For example, widespread dissemination of mild disease may not require stringent control measures such as closing facilities or quarantine. The current course of H1N1 Pandemic Influenza disease in the population remains mild-moderate, except in some populations (e.g., children, pregnant women).

To deal with the current and future Pandemic Influenza, the Texas A&M System has developed four discrete emergency response levels of increasing severity that relate to specific risks on campus and subsequent emergency response actions:

The Texas A&M University System Pandemic Influenza Emergency Response Level I:

This is the expected level when there is no pandemic in progress. Activities during these times focus on monitoring of world-wide influenza activity, and emergency response planning.

The Texas A&M University System Pandemic Influenza Emergency Response Level II:

At this level a new pandemic influenza virus is beginning to circle the globe (but not in the United States). This requires increased national monitoring for illness. Texas A&M System members are urged to update their emergency plans and make contact with their local health departments.

The Texas A&M University System Pandemic Influenza Emergency Response Level III:

Pandemic influenza virus has been identified within the boundaries of the United States, but not in Texas. Campus emergency response plans should be reviewed, and essential

personnel identified. Measures to slow the spread of virus (e.g., hygiene and immunization) should be promoted or implemented.

The Texas A&M University System Pandemic Influenza Emergency Response Level IV:

At this level, pandemic influenza has been identified in Texas. It is time to start identifying cases on campus, maintaining essential operations while focusing on additional measures to protect the health of students, faculty and staff.



Emergency Response Level Planning Measures

Each emergency response level has specific actions that are recommended to address the pandemic influenza. Constant communication and consultation with appropriate local and state health officials are essential for effective emergency operations. Actions taken during all levels of a pandemic influenza response must ensure informational and support services to students, faculty and staff. Usually, emergency response recommendations are additive as the severity of illness (or emergency response level) increases. However, some emergency measures from higher emergency response levels may be appropriate at earlier stages in the epidemic. Planners must exercise some flexibility in developing their member plans.

Level I: No pandemic influenza virus activity is occurring

1. Monitor the transmission of influenza via local, state and CDC information resources.
2. Review, evaluate, drill, and adapt current member Pandemic Influenza response plans.
3. Encourage influenza immunization, if available.

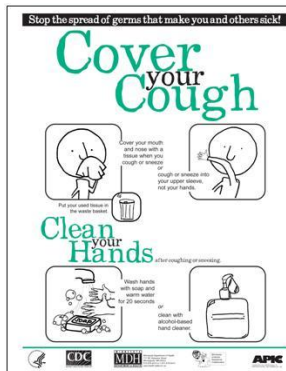
Level II: Pandemic influenza virus activity identified, but none in the United States

1. Monitor the transmission of influenza activity via local, state and CDC information resources.
2. Communicate with Texas A&M System and local and state health department and other relevant health and civic organizations and resources, including the American College Health Association.
3. Information regarding visits to student health services for influenza-like illness, and class absenteeism should be systematically collected, collated, analyzed and shared with appropriate campus personnel for baseline and monitoring purposes. Information should be shared with Texas A&M System and with your local health department.
4. Issue communications to the campus community regarding status of disease spread, self-protection and member response.
5. Encourage hand hygiene and cough etiquette for well and ill students, faculty, and staff. For more information, see: www.cdc.gov/cleanhands.
6. Assure that travelers have the latest travel health information for affected areas (international and domestic), based upon recommendations from local, state, and federal health agencies. See: <http://www.cdc.gov/travel>.
7. Planning measures should include consideration for handling persons who return from abroad from affected areas, who become ill with influenza-like-illness (e.g., confirmation, isolation, standing recommendations).
8. Inform employees of campus policies regarding working from home, travel, using sick leave, and other human resources policies as applicable.
9. Plan for influenza monitoring. Information regarding student health services and class absenteeism should be systematically collected, collated, analyzed and shared with appropriate Texas A&M System personnel for baseline and monitoring purposes.

Level III: Pandemic influenza virus activity identified in the United States, but none documented in Texas

1. Provide information regarding community control measures such as social distancing, and “stay at home if ill” recommendations.
2. Implement influenza-like monitoring and refine reporting measures.
3. Review infection control procedures. a) If personal protective equipment (PPE) is part of your planning, determine who needs what level of protection, when they should use it and under what conditions. Assure that appropriate personnel have adequate supplies of PPE as set out in your plan or as recommended by your local health department. For more information, see: <http://www.cdc.gov/h1n1flu/masks.htm>. b) Determine how students who reside on campus who become ill will be handled.
4. Distribute appropriate disinfectants (e.g. hand sanitizers) and encourage widespread use.

5. Adjust procedures for cleaning public areas to reduce viral spread.
6. Provide necessary communications.
7. Designate or activate Emergency Operation Center (EOC) activities, particularly with respect to communications.



Level IV: Pandemic Influenza Activity Identified Throughout Texas (includes cases on any Texas A&M campus)

Key Planning Assumptions

- If the severity of illness increases (higher mortality or increasing hospitalizations), more stringent disease control measures may be required to protect the health and well-being of students, faculty and staff.
- Consequently, Level IV has been divided into two levels of Pandemic Influenza for organizing the emergency response: mild-moderate Pandemic Influenza (IV.A) and severe Pandemic Influenza (IV.B), for organizing the emergency response.
 - Mild-Moderate Emergency Response – Level IV.A (Current State)
 - Severe Emergency Response – IV.B
- This division of the emergency response was developed to separate situations that impinge on essential services (Severe Pandemic Influenza) from those situations where most normal activities would likely continue (e.g. Mild to Moderate Pandemic Influenza).
- The determination of what constitutes mild-moderate illness vs. more severe illness should be made by System Member leadership in consultation with public health officials at the local and state level.



Planning For Mild-Moderate Pandemic Influenza

Emergency Response Level IV.A

Level IV.A: For mild to moderate influenza illness (similar to seasonal influenza)

1. Fully support the operations of student health services including deployment of additional resources as needed and available. Tracking the impact in our student populations and workers will be paramount to our ability to maintain essential operations. **The primary goal at this point is to slow the spread of disease. This level of severity is not expected to impinge on essential services.**
2. Information regarding visits to student health services for influenza-like illness, and class absenteeism should be systematically collected, collated, analyzed and shared with appropriate System Member personnel for baseline and monitoring purposes. Information should be shared with Texas A&M System leadership and with your local health department. During the height of the epidemic, there may be a daily reporting cycle.
3. Review and disseminate student absenteeism and staff/faculty sick leave policies. Assure that such policies support staying at home when ill or caring for an ill family member. Do not require physician note to confirm illness.
4. Facilitate self-isolation of residential students with influenza-like illness within their dorm rooms or campus apartments. Non-residential students, faculty and staff should self-isolate at home for at least 24 hours after they no longer have a fever.
5. Discourage attendance at campus events by ill persons.

6. Maintain communication capacity to coordinate official Member communiqués with system and other responders.
7. All continuity of operations plans are activated to ensure essential services are provided.
8. Establish regular cleaning procedures and schedules for high-touch surfaces (bathrooms, doorknobs, keyboards). Provide disposable wipes for use by students on high-touch surfaces.
9. Prepare to activate the point(s) of distribution for medications or vaccines as recommended by local public health department and as set out in points of dispensing plans. Determine thresholds for activation.
10. If a new vaccine is available, make every effort to ensure as many campus students, faculty, and staff are vaccinated.
11. Provide necessary communications regarding the status of the Member.
12. Continue to encourage hand hygiene and cough etiquette for all.
13. Distribute personal protective equipment (PPE) to essential personnel as set out in your response plan, if PPE is part of your response plan.
14. Actively communicate with your local health department to optimize the best response measures during the outbreak. It is important that you receive information and that university members provide information to their local health departments during all phases of the outbreak.

Planning For Severe Pandemic Influenza

Emergency Response Level IV.B

Level IV.B: For Severe Influenza Illness (epidemic begins to impinge on essential services)

1. Continue all previous emergency response level actions. Consider the spread and severity of illness and seek guidance from state and local health departments and member consultants regarding deciding on a course of action. **The primary goal at this point is to slow the spread of the disease and maintain essential member services.**
2. Consider suspending university special events and what trigger and procedures will result in the suspension of classes. If classes/events are suspended, have a process in place for resumption of classes and events.
3. Continue voluntary isolation of close contacts. Extend the self-isolation period to 7 days after the onset of their symptoms.
4. Reinforce stay-at-home policies for ill persons.
5. Expand communication capacity, as necessary, to coordinate official Member communiqués with system and other responders.
6. Ensure essential university operations are performed, even if some member functions must be curtailed.
7. Consider closing research facilities as set out in your response plan, except those that are deemed critical (e.g., animal care).

8. Maintain critical infrastructure and services.
9. Fully enact policies regarding non-essential personnel.
10. Fully utilize health/medical assistance, housing, food, telecommuting, and other assistance to reduce infection and support those who are ill, self-isolated or are unable to go home, while maintaining essential university operational duties.
11. Enhance the medical support to accommodate increased isolation, if appropriate, for your campus.
12. Initiate planning for recovery as set out in your plan.
- 13.

Summary

The Texas A&M System Pandemic Influenza Emergency Response Levels

Level I CDC reports no cases related to Pandemic Influenza worldwide

Level II CDC reports Pandemic Influenza cases outside of the United States

Level III CDC reports Pandemic Influenza cases within the continental United States

Level IV Texas DSHS reports Pandemic Influenza cases within Texas

IV.A. Mild-moderate influenza illness reported nationally

IV.B. More severe influenza illness reported nationally

Planning Considerations Related to Pandemic Influenza Emergency Responses

A. General

The basis of the Texas A&M System Pandemic Influenza emergency response is the **preservation of health, safety, and the well-being of the campus community**. It is paramount that each member of the system tends to the campus community to foster a healthy environment during an influenza pandemic.

The basic order of operational priorities is:

- 1) Maintaining the health, safety and well-being of the campus community.
- 2) Maintaining continuity of operations and essential services to minimize negative economic diTAMUGptions.
- 3) Maintaining critical infrastructure and/or facilities to support remaining campus residents and other essential duties and personnel.
- 4) Resume normal system member operations.

B. Direction and Control

The Chief Executive Officer retains authority for making decisions affecting the Member. These decisions may include issuing travel advisories, suspending mass gatherings (including classes), suspending research, suspending normal university operations and resumption of operations. Every effort should be made to coordinate decisions made by the local CEO with local or regional public health and with the system.

Planning should include thresholds or a decision-making process for the following:

- a. Issuance of Travel Advisories/Information
- b. Cancellation of Special Events(Note: limited to level not affecting graduation/accreditation)
- c. Cancellation of Classes (Note: limited to level not affecting graduation/accreditation)
- d. Initiation of Telecommuting
- e. Suspension of Research
- f. Cancellation of Member Operations (Note: System must participate in these decisions)
- g. Resumption of Normal Operations (Note: System must participate in these decisions)

C. Continuity of Operations and Essential Services

1. Continuity of Operations and Essential Services planning is critical before an influenza pandemic. Maintaining continuity of operations will mitigate diTAMUGptions to critical services and infrastructure caused by pandemic influenza. As well as mitigating these diTAMUGptions, Continuity of Operations Planning enhances the recovery efforts caused by pandemic influenza.
2. Services critical to member operations are financial services, human resources, risk management and safety, university police department, student health services, dining services, residential life, study abroad, and academic and student affairs. Critical infrastructure support will also be critical from facilities management and information technology. Selected essential services relevant to the System are listed below:
 1. Security
 2. Campus Health and Safety, including worker safety
 3. IT Support
 4. Human Resources, including policies and procedures for absenteeism and leave
 5. Financial Operations
 6. Campus Housing
 7. Food Services
 8. Maintaining Critical Infrastructure
 9. Educational Services
 10. Research
3. Planning should also identify essential personnel and duties.
4. Continuity of operation and essential service plans should be routinely updated and a copy forwarded to the System, c/o Kevin McGinnis at: mcginnis@tamu.edu.
5. For more information on planning for continuity of operations, please refer to www.fema.gov.



Emergency Operations Center dealing with the SARS epidemic in 2003

D. Communications

1. General

- a. Pandemic influenza imposes exceptional communications requirements. Effective communication is comprised of redundant communication systems, effective internal communication and effective external communication (communication with external agencies and the general public). This information is usually found in the Communications Section of your system member “all hazards” emergency response plan.
- b. In an emergency, one or more communication strategies/systems can become disabled or ineffective. Therefore, it is critical that planning takes into consideration the need for backup communication modes, diversity of communication modes and redundancy.
- c. Each system member is requested to identify a Point of Contact for critical communications between system and system members related to Pandemic Influenza.

2. Communication with member(s) of the system community traveling in affected regions must consider:

- a. Affiliates of the Member that are traveling to affected regions as part of a member-sanctioned event will provide contact information before departure to the leading/sponsoring department and/or the Study Abroad Office per existing university policies.

3. Communicating Member Closures

- a. Any announcements regarding closures or cessation of events will be communicated via the memberhome web page, email, television/radio announcements, or any other available means. All announcements to be posted on the home web page or made for television/radio will be routed through normal approval procedures.

4. Internal Communications

- a. General information regarding pandemic influenza will be distributed in the form of public service announcements (PSAs) through any and all available modes of communication (i.e., internet, email, telephone, radio, television, etc.) as appropriate. Reference your crisis management plan for more information.
- b. During a Pandemic Influenza emergency response internal communication may need to include information related to the following areas:
 - Updates from local, state, and federal agencies
 - University response activities
 - Health guidelines
 - Media information
 - Emergency bulletins

5. External Communications

All public information made available through A&M system members will be directed through their Public Information Officer or other designated official. During a Pandemic Influenza response, there may need to be coordination with external communications by system and other members.

E. Major Health Service Considerations During a Pandemic

1. Medical Support

- a. System members will have the initial responsibility for the health care services needed by students during a pandemic. In general, Student Health Services (or similar responsible party) should be enlisted to facilitate this planning.
- b. The local Health Department (or the DSHS Regional Health Department) will serve as the public health authority and as a resource related to management of the pandemic (e.g., screening, vaccine delivery, local case counts, tracking the course of the epidemic).

2. Isolation

- a. During the early stages of a pandemic, people who are known to be ill with pandemic influenza will be advised to voluntarily isolate themselves from others, typically in their own homes. For ill students housed on campus and unable to be isolated at home, a pre-designated location and support may need to be included in your planning. However, at some point in the emergency response, it may be impractical to isolate all victims who are ill because of the overwhelming numbers of those affected.

3. Quarantine

- a. Quarantine measures are usually within the purview of public safety and public health authorities in Texas. Direct discussions with the appropriate officials are critical to determine if quarantine has any role in the management of Pandemic Influenza on campus.

F. Management of Vaccines and Prophylaxis

- a. Currently, Pandemic Influenza vaccines are being provided through the appropriate local Health Department and distributed in accordance with the local government's emergency response plan. In the future, it is important to note that vaccines may be

distributed through other sites, such as Student Health Services. If mass vaccination is part of your planning for Pandemic Influenza, delineate how this will be accomplished and who is responsible for implementing these programs.

- b. Currently The Texas A&M University System has no plan to recommend or provide mass prophylaxis of antivirals to students, faculty or staff.

G. Mass Fatalities Management

The management of mass fatalities will be under the direction and authority of the local or regional Health Department in accordance with appropriate local government's Interjurisdictional Emergency Management Plan.

H. Employee Well-being and Support

The response to an influenza pandemic will pose substantial physical, personal, social, and emotional challenges to employees. Therefore, it is imperative that we provide support that enhances employee well-being. Each system member should provide support to enhance employee well-being. Therefore, procedures to monitor the health, emotional status and other types of support should be included in Pandemic Influenza emergency response plans.

Additional Pandemic Influenza Information Sources

Understanding that the amount of information that will be available during a Pandemic Influenza situation will be vast, the following web sites may serve as useful information sources:

- Texas Department of State Health Services
<http://www.dshs.state.tx.us>
- Pandemic Flu (comprehensive pandemic flu information)
<http://www.flu.gov>
- Of special interest:
<http://www.pandemicflu.org/professional/school/higheredguidance.html>
- U.S. Department of Health and Human Services
<http://www.hhs.gov>
- Centers for Disease Control and Prevention
<http://www.cdc.gov>
- World Health Organization

<http://www.who.int/en/>