THE IMPACT OF LEGISLATION HOUSE BILL 56 ON IMMIGRATION LAWS AND CONSTRUCTION IN ALABAMA

A Thesis

by

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ABSTRACT

Historically the United States has welcomed immigration from all over the world; from Ellis Island to the Statue of Liberty, whose iconic "Mother of Exiles" is considered a symbol of hope to generations upon generations of immigrants. In the last few years there has been an increase in hostility towards immigration but more precisely towards unauthorized immigration. This has caused several states to enact anti-unauthorized immigration measures. States such as South Carolina, Utah, Alabama, have all followed Arizona, which was the first state to enact such a laws. Unauthorized immigrants typically vacate three labor areas, construction, food service, and agriculture. The following thesis tries to detail House Bill 56, which is Alabama's anti-unauthorized immigration bill, and its impact on the construction industry in Alabama.

House Bill 56 was passed by the Alabama House of Representatives, the following research shows that it has negatively affected the construction industry in Alabama. Alabama has three major indexes that detail the overall "health" of the construction industry. They are employment rates, Construction GDP, and Construction Spending. Since the passage of HB 56, all three construction indexes in Alabama have encountered significant negative changes. A survey of sub-contractors in Alabama shows that there is a negative construction labor pool, with most of sub-contractors blaming the passage of HB 56 as the culprit.

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I would like to thank my committee chair, Dr. David Bilbo whose help, support, and patience have guided this thesis. I would like to also portray to my committee members, Dr. Cecilia Giusti, and Dr. Edelmirro Escamilla whose unsurpassed knowledge and passion in the field of immigration and the research process, an immense sense of gratitude for your unwavering support and friendship.

DEDICATION

I would like to dedicate my Thesis Paper to my father Alberto Gomez and mentor, Edgar Allen Arnold. Both of you have shaped and molded my life. You have taught me how to be a man, of character and a man of convictions.

To my mother, Gladys Sanchez and my brother, Julian Garcia, thank you for the ultimate support you have given me, a loving and caring family.

To God, for allowing me the opportunity to attend graduate school, and placing people in my life who have supported me, broken me down, lifted me, burrowed me, and all the parts in between.

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Evan: For making me laugh.

Eric: For being odd.

Yang: For being Mr. Liu

Janice & Bradley: For taking CVEN Statistics

Thank you all.

NOMENCLATURE

HB	House Bill
GDP(C)	Gross Domestic Product Construction
DOL	United States Department of Labor
BLS	United States Bureau of Labor Statistics
PRC	Pew Research Center
BEA	United States Bureau of Economic Analysis
ICE	U.S. Immigration and Customs Enforcement
CRS	Congressional Research Service
PPIC	Public Policy Institute of California
IRCA	Immigration Reform and Control Act
CAP	Center for American Progress

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1. INTRODUCTION

1.1 Background

The introduction of the Beason-Hammon Alabama Taxpayer and Citizen Protection Act in the state of Alabama commonly referred to as Legislation House Bill 56 or HB 56; has created a firestorm of outrage and support nationwide. Proponents of the law mainly Alabama's Republican led Senate and House of Representatives have touted it as a positive step towards eliminating the onslaught of unauthorized immigration, and the economic burden which unauthorized immigration creates. While immigration support groups state that HB 56 is a step backwards in time. Back to a time when Jim Crow laws governed the land, but are now directed towards the unauthorized immigrant population. Legislation House Bill 56 was first read to the Alabama House of Representatives on March 3, 2011; and consequently signed into law on July 9 of 2011. The law was scheduled to take effect September 1, 2011, but legal actions taken by the Presidential Administration (Obama Administration), derailed its commencement. The Presidential Administration managed to block certain facets and aspects of the law, but a federal ruling on September 29, 2011, sustained the majority of the law, and subsequently it proceeded to go into effect. The main provisions of the passed law are as follows:

- Allows local law enforcement to demand papers from anyone they deem to be in the country illegally.(ACLU, 2013)

- Makes it a crime for undocumented immigrants to hold a job in Alabama, and make it a crime for any immigrant in the state to be caught without documentation proving status, with deportation or full prosecution of law. (ACLU, 2013)
- Makes it unauthorized to sign a contract with undocumented immigrants, to knowingly rent property to them, to knowingly hire them for jobs. (ACLU, 2013)
- Require businesses to use E-Verify, the government database of names, to check employees' legal status. (ACLU, 2013)
- Mandates parents to report immigration status of their children to public.
- This Legislation is a singular law to the State of Alabama. (ACLU, 2013)

Legislation House Bill 56 does not clearly delineate its ulterior purpose in the verbiage of the law, yet one can easily infer that the purpose of the law is to eliminate, or reduce the numbers of unauthorized immigrants that currently reside in the state of Alabama. Furthermore there has been little research or analysis performed that details the impact of the law on the construction economy in Alabama.

1.2 Statement of the Problem

Through analysis of various facets of the construction industry, the proposed study will identify and analyze how, and to what extent, House Bill 56 has impacted the construction industry in Alabama.

1.3 Research Objectives

This study is intended to analyze and validate the impact of Legislation HB 56 on the construction industry in Alabama. This will be accomplished by mixed methodologies, combining both quantitative and qualitative research methodologies.

The research objectives are: (1) to explore the impact of HB 56, through a quantitative analysis of Construction Employment Rates, Construction GDP, and Construction Spending, and (2) a qualitative analysis of six (6) construction trades, and determine the impact of House Bill 56 in Alabama through a phone survey.

1.4 Null Hypothesis

Null Hypothesis 1

There has been no significant change in the construction employment rates in Alabama since the passage of HB 56.

Null Hypothesis 2

There has been no significant change in Construction GDP in Alabama since the passage of HB 56.

Null Hypothesis 3

There has been no significant change in Construction spending rates in Alabama since the passage of HB 56.

Null Hypothesis 4

There has been no significant change in the construction employment rates in Alabama since the passage of HB 56, as compared to other states of pre-determined similarity.

Null Hypothesis 5

There has been no significant change in the Construction GDP rate in Alabama since the passage of HB 56, as compared to other states of pre-determined similarity.

Null Hypothesis 6

There has been no significant change in Construction Spending rates in Alabama since the passage of HB 56, as compared to other states of pre-determined similarity

1.5 Limitations

The research will focus on the impact on the construction industry in Alabama by House Bill 56; it will not be an analysis of the body and verbiage of the law.

1. Modeling data will be gathered from the Bureau of Labor Statistics, the U.S Bureau of Economic Analysis, and the U.S Census Bureau.
2. The quantitative assessment will be a one-time survey, with no follow up interviews.
3. The research time frames will encompass one (1) year pre legislation and one (1) year post legislation.
4. Construction GDP and Construction Spending data is given as a yearly amount, and not as a monthly value, like Employment Rates.

1.6 Delimitations

1. The qualitative portion of the study focuses directly the following sub-contractors trades:
    a. Concrete
    b. Masonry

c. Drywall

d. Painting

e. Flooring

f. Roofing

1.7 Definitions of Terms

Construction: the construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Establishments primarily engaged in the preparation of sites for new construction and establishments primarily engaged in subdividing land for sale as building sites also are included in this sector. Production responsibilities for establishments in this sector are usually specified in (1) contracts with the owners of construction projects (prime contracts) or (2) contracts with other construction establishments ("Census.gov" 2006). Construction for the purposes of this study will adhere to three main branches: Commercial, Industrial, and Residential Construction (Construction spending, 2013).

*Unauthorized Immigrant**:*** an alien (non-citizen) who has entered the United States without government permission or stayed beyond the termination date of their respective visa (Anti Essays, 2011).

Construction Gross Domestic Product: GDP measures the monetary value of final goods and services—that is, those that are bought by the final user—produced in a country in a given period of time (typically quarters of a year). It counts all of the output

generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also include some nonmarket production, such as defense or education services provided by the government (The Robinson Rojas Archive, 2012).

Construction Spending: is an economic indicator that measures the amount of spending towards new construction. It is released monthly by the U.S. Department of Commerce's Census Bureau; it looks at residential and non-residential construction in the private sector, and state and federal at the public level (Construction spending, 2013).

Construction Employment Rates: the number of persons who have jobs, expressed as a percentage of the total workforce. The employment rate is not used as commonly as the unemployment rate but it is still an important indicator of the state of the wider economy. It is a lagging indicator; that is, following a recession, the employment rate tends not to grow to any significant extent until the remainder of the economy has recovered (BLS (B) statistics, 2010).

Construction Unemployment Rates: the unemployment rate measures the percentage of employable people in a country's workforce who are over the age of 16 and who have either lost their jobs or have unsuccessfully sought jobs in the last month and are still actively seeking work (BLS (A) statistics, 2010).

Self-Perform: self-performing contractors use their own labor force to accomplish a portions of a construction project, particularly critical path components such as steel erection, concrete work, and carpentry. A self-performing contractor brings

qualified labor, specialized equipment, and building expertise to a project (McCarthy, 2013). Only about 25 percent of general contractors have the capabilities to self-perform (Bolen, 2007). Since the amount of General Contractors who self-perform is so small, study will only focus on sub-contractors who self-perform all their work.

Sub-Contractor: an individual or business firm contracting to perform part or all of another's contract (Mirriam-Webster, 2011).

1.8 Significance of Study

The purpose of this study is to identify the impact of Legislation House Bill 56, on construction by looking at three (3) facets of the construction industry in the state of Alabama. The research is designed to help individuals understand the impact of laws that affect either positively or negatively the construction industry. By understanding the effects of the law, the research will provide a platform for informed decision-making regarding laws, which affect construction such as House Bill 56. Moreover, this research will be helpful to the construction industry, and its affiliates, informing them of the "human impact" of House Bill 56.

2. REVIEW OF RELATED LITERATURE

2.1 Overview

The literature review focuses of nine areas: (1)history of immigration patterns in the United States, (2)what drives unauthorized immigration, (3) an overview demographically of areas in the United States where unauthorized immigrants are settling, (4) history of immigration laws, (5) the fiscal impact of unauthorized immigration; (6) the development of legislation directly opposing unauthorized immigration and analysis of states that are implementing anti-unauthorized immigrant laws; (7)analysis of employment areas directly affected by unauthorized immigration in the United States as a whole, and analysis of areas adversely affected by targeted unauthorized immigration legislation in Alabama, (8) an overview of employment for unauthorized immigrants in the construction field in Alabama, and (9) cost and benefit analysis of Legislation House Bill 56. The purpose of the literature review is to chronicle unauthorized immigration from a broad spectrum to the topic of study; the approach in the literature review is one of an inverted pyramid. The present review is limited, to data available as projections from various trusted entities. It is important to inform the reader that unauthorized immigrant population is not numerically specific; this is due to the fearfulness of unauthorized immigrants to participate in data collection mechanisms, such as the Census or polling. Fortunately the there are three entities that track and give estimates of the unauthorized immigration population, the U.S. Department of Homeland Security, Center for American Progress (CRS) and the Pew Hispanic Research Center (Addy, 2012).

2.2 History of Immigration

Immigration has been synonymous with the United States since its inception and it's arguably one of its founding ideals and principles. There have been major waves of immigration to the United States, either entering the country legally or illegally. Immigrants have come for a myriad reasons, some economic, some religious, some social, and some political. Philip Martin and Elizabeth Midgley from the Population Reference Bureau (PRB) have chronicled the four major waves of immigration to the United States:

1. Pre 1820
2. From 1820-1860, which brought about 7.5 million immigrants.
3. From 1881-1914.
4. From 1965-present, where half are from Latin America.

Throughout this entire time there have been many evolutions of laws to both restrict and invite immigration flow; the latter parts of the literature review addresses many of these laws.

2.2.1 First Wave: Before 1820

The first wave of immigrants arrived before entries began to be recorded in 1820. The English made up 60 percent of the immigration population in 1790, but there were also Scottish, Scots-Irish, Germans, Dutch, French, and Spaniards. These immigrants were motivated by a mixture of religious, political, and economic factors. German sectarians sought religious freedom in Pennsylvania; Spaniards looked for Christian converts in Florida and the southwest; and the Puritans in Massachusetts sought to

establish a community restricted to members of their faith. Religious freedom was made possible by political and economic freedom; the absence of coercion by overlords and the chance to prosper in a new land (Population Reference Bureau, 2003). One-third of immigrants arriving in 1776 had become indentured servants to secure passage. This process of immigration denotes that even in the early days of immigration, a large percentage of the immigration population was compromised of laborers. Which to this day still holds factual.

2.2.2 Second Wave: 1820 to 1860

The second wave of immigrants, who arrived between 1820 and 1860, fit well with Americans' eagerness for people to help settle the frontier. Peasants displaced from agriculture and artisans made jobless by the Industrial Revolution were desperate to escape from Europe. New arrivals sent what came to be called "American letters" back to Europe, encouraging friends and relatives to join them. Steamship and railroad companies sent agents around Europe recruiting customers. Between 1820 and 1840, more than 7,500,000 German, British, and Irish immigrants arrived; another 4.3 million came from those countries during the next 20 years. About 40 percent of these second-wave immigrants were Irish escaping extreme poverty and famine in their home country. Roman Catholics predominated in the second wave, and by 1850 the Roman Catholic Church was the largest denomination in the United States, though Protestants of various denominations outnumbered Catholics (Population Reference Bureau, 2003).

2.2.3 Third Wave: 1880 to 1914

The third wave of immigration started in 1880, when almost 460,000 immigrants arrived, and ended with the outbreak of war in Europe in 1914, when 1.2 million immigrants entered. During the third wave, over 20 million southern and eastern Europeans came, mostly to the Eastern and Midwestern states. Several hundred thousand Chinese, Japanese, and other Asian laborers settled in the Western states. The shift in national origins can be seen by comparing the homelands of the immigrants who entered during 1882 and 1907, two peak immigration years (Population Reference Bureau, 2003). The immigrants who arrived in 1907 also included the first large numbers of people of Jewish and Eastern Orthodox religions. By the early 1900s, the frontier was closed, and most newcomers found factory jobs in eastern and Midwestern cities. More than 1 million immigrants arrived annually in six of the first 14 years of the 20th century. By 1910, foreign- born residents accounted for nearly 15 percent of the U.S. population and about 24 percent of the U.S. labor force; immigrants made up more than fifty (50) percent of all operatives in mining, steel, and meatpacking. Foreign- born men made up more than half of the work force in some of the major US cities, like New York, Chicago, and Detroit (Population Reference Bureau, 2003).

2.2.4 Immigration Pause: 1915 to 1964

Immigration ceased as World War I erupted in Europe. When immigrants began to arrive again after the war, in the 1920s, their entry was curtailed by the introduction of numerical limits, or "quotas." Then the severe economic depression of the 1930s discouraged foreigners moving to the United States. As Adolf Hitler's Nazi regime

displaced and threatened Jews and political opponents in Europe and precipitated another world war, many called on Franklin D. Roosevelt's administration to give more generous treatment to those fleeing Nazi-controlled areas (Population Reference Bureau, 2003). Yet the United States did not admit large numbers of refugees until after World War II. Including the refugee flows, an average of 250,000 immigrants entered each year through the 1950s. During the 1940s and 1950s, immigration from Mexico and other Western Hemisphere nations became increasingly important. In the 1940s, about one-third of the 1 million immigrants whose arrivals were recorded were from the Western Hemisphere. The Western Hemisphere share climbed to 40 percent in the 1950s. Legal immigrant admissions did not reflect the volume of Western Hemisphere immigration, because many migrants were unauthorized. Between1940 and 1960, for example, 360,000 legal Mexican immigrants were admitted but, in 1954 alone, more than 1 million Mexicans were apprehended and sent back as illegal entrants. Since relatively few of the unauthorized Mexicans became permanent settlers, the Mexican-origin population during that time frame rose very slowly (Population Reference Bureau, 2003).

2.2.5 Fourth Wave: 1965 to Present

Fourth-wave immigrants began arriving in the United States after 1965, when the preference system changed. Instead of giving priority to immigrants based on their national origins; with preference to those from northern and Western Europe, the new system gave priority to people with U.S. relatives and to a small number of people with outstanding accomplishments or special skills. These changes, coupled with prosperity

in Europe, altered the composition of U.S. immigrants. During the 1970s, the first decade the law was in effect; fewer than 20 percent of U.S. immigrants were Europeans. There are many similarities between immigration at the beginning of the 20th century and at the start of the 21st. During both periods, the economy was undergoing fundamental restructuring, from agriculture to industry in the early years of the 20th century and from services to information at start of the 21st century. Both waves brought people from countries that had not previously sent large numbers of immigrants, raising questions about language, religion, and culture (Population Reference Bureau, 2003).

In turn the majority of immigration to the US since 1965 has been primarily from Latin America, with Mexico having the greatest numbers. Latin American countries compromise five (5) of the top ten (10) source countries of unauthorized resident immigrants; Figure 1 below depicts the number of unauthorized immigrants entering the United States and their country of origin for the years, 2000 and 2010:

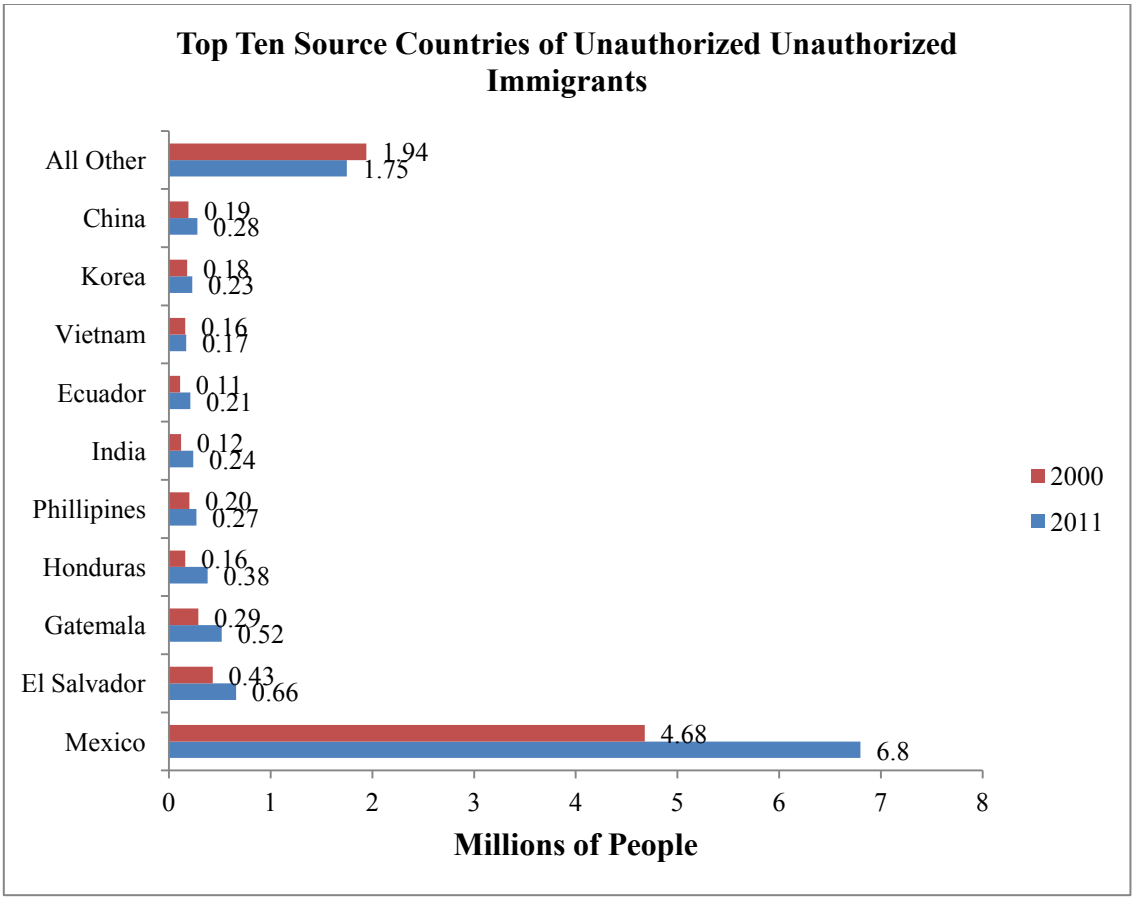

Figure 1: Top Ten Source Countries of Unauthorized Immigrants. Source: CRS Presentation of American Community Survey Data, Analyzed by Michael Hoefer, Nancy Rytina, and Bryan Baker (2012)

The data points to the country, which is the primary engine of illegal immigration to the United States since 1965, Mexico.

2.3 Driving Forces

It is very difficult to pinpoint exactly the reasons as to why unauthorized immigrants leave their respective country of citizenship to come to the Unites States either by entering illegally, or by entering legally with visas and simply overstaying their time authorization. The Public Policy Institute of California states has narrowed it down

to one (1) main reason why unauthorized immigrants come to the United States, which is the economic pull.

2.4 The Economic Pull

Political controversies aside, when unauthorized immigrants come, many U.S. employers are ready to hire them. Estimates suggest that at least 75% percent of adult unauthorized immigrants are in the workforce. Male unauthorized immigrants have particularly high labor force participation rates, with more than 90 percent in the workforce. Wage and employment levels in the United States are much higher than in immigrants' home countries. For example, the average U.S. wage for production workers in manufacturing is about nine times higher than in Mexico, a ratio that has changed very little in over two decades. (Johnson & Hill, 2011)

One of the factors that have exacerbated unauthorized immigration is the ease with which unauthorized immigrants can get a job, due to the inefficiency of U.S. government in sanctioning employers that hire illegal immigrants. There are three main reasons why employer sanctions are ineffective. The first reason is that there does not seem to be a reliable method for verifying employment eligibility. Although there have been sanctions in place since the passage of the Immigration Reform and Control Act (IRCA) of 1986 for knowingly hiring an illegal alien, the law only requires that employers determine the eligibility of the worker on the basis of whether or not the documents presented to them appear to be authentic. The law does not require employers to verify whether the documents presented are actually authentic. Given the lax nature of the law on this matter, illegal immigrants have found it easy to obtain counterfeit

documents and employers have found it easy to comply with the law simply by determining those documents to be authentic. Some states have required the use of E-Verify, an internet-based program that compares a potential employee's documents with U.S. government records. Unfortunately, the program is not sophisticated enough to detect whether or not the documents are a result of identity fraud, and might therefore be increasing the value of stolen identity data as a means for an unauthorized individual to gain employment. Secondly, U.S. government has spent very little to increase funding interior investigations, especially when compared to the overall enforcement budget. Although border enforcement is needed to control illegal immigration, decreasing the economic incentives to work illegally in the U.S. is a legitimate concern that has not really been addressed. Thirdly, there is concern over national sovereignty and violations of U.S. law, which prompts increased spending to stop illegal border crossing. There is also a desire to maintain strong economic performance, which causes concern over the disruption of economic activity made possible by illegal labor. In an effort to balance these interests, the U.S. government has focused enforcement at the border rather than at the worksite. Despite increased funding to secure the border between 1987 and 2002, however, the continual increase in illegal immigration suggests that the economic incentive to immigrate illegally is still very powerful. (Wright, 2011)

2.5 Unauthorized Immigrant Settlement Demographics

Figure 2, from the US Department of Homeland Security depicts the unauthorized immigrant population in the United States from 2000 through 2011.

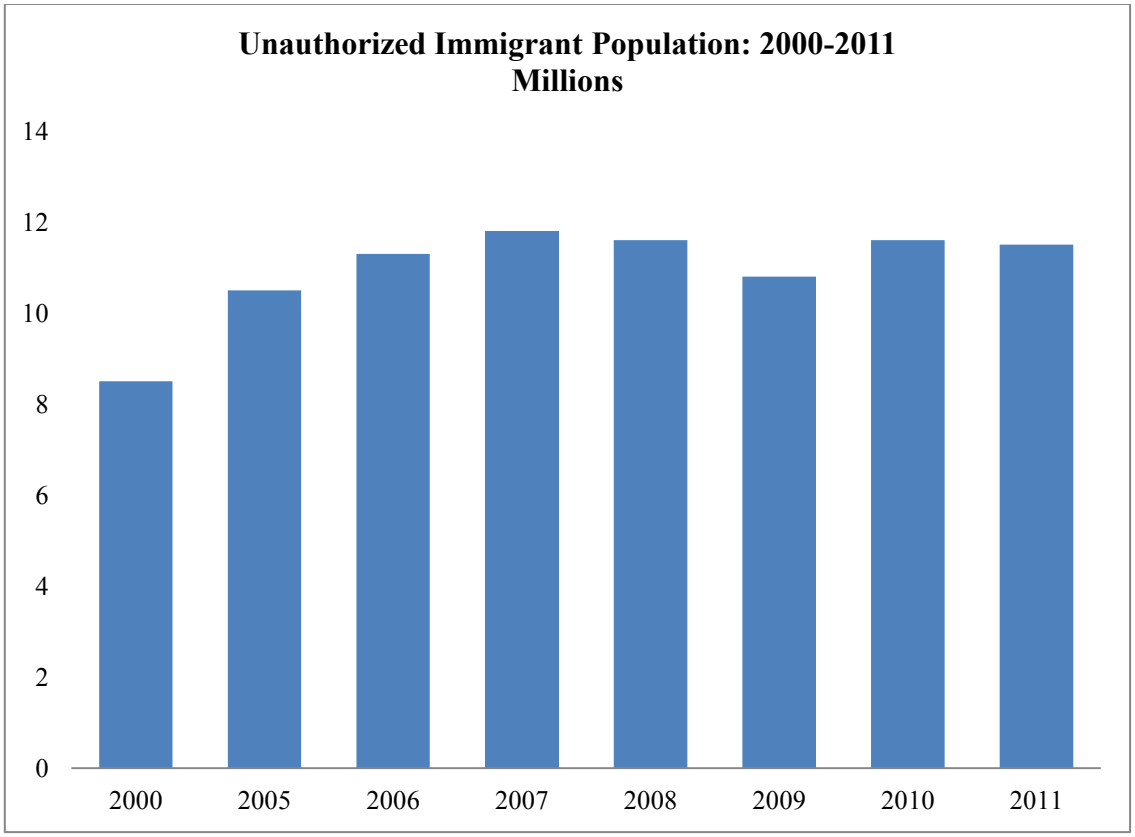

Figure 2: Unauthorized Immigrant Population from 2000 to 2010. Source: U.S. Department of Homeland Security

More importantly DHS also shows the number of unauthorized immigrants percent change per state. Table 1, from DHS has very specific number for ten (10) states and the remaining states are coupled together.

Table 1: Unauthorized Immigrant Change from 2000 to 2010. Source: U.S. Department of Homeland Security

Number of Unauthorized Immigrants in the U.S & Per State

	Year	Year	Percent Change	Number Change
State of Residence	2011	2000	2000 to 2011	2000 to 2011
All states	11,510,000	8460000	36%	280,000
California	2,830,000	2510000	12%	30,000
Texas	1,790,000	1090000	64%	60,000
Florida	740,000	800000	-8%	10,000
New York	630,000	540000	18%	10,000
Illinois	550,000	440000	26%	10,000
Georgia	440,000	220000	95%	20,000
New Jersey	420,000	350000	19%	10,000
North Carolina	400,000	260000	53%	10,000
Arizona	360,000	330000	9%	--
Washington	260,000	170000	51%	10,000
Other States	3,100,000	1750000	77%	120,000

2.5.1 Workforce

There were 8 million unauthorized immigrants in the workforce in March 2010, down slightly from 2007, when there were 8.4 million. They represent 5.2% of the

workforce, similar to their proportion for the past half-decade, when they represented 5% to 5.5% of workers. State patterns differ widely, but generally states with large numbers or shares of unauthorized immigrants also have relatively large numbers or shares in the workforce.

States with the largest share of unauthorized immigrants in the workforce include Nevada (10%), California (9.7%), Texas (9%) and New Jersey (8.6%). Because unauthorized immigrants are more likely than the overall population to be of working age, their share in a state's workforce is substantially higher than their share of a state's population. (Pew Hispanic, 2011)

The Center for American Progress (CAP) is an independent nonpartisan educational institute has separately from the Department of Homeland Security monitored the settlement patterns of unauthorized immigrants. They state that the: traditional "gateway" states such as California, Illinois, Texas, New York, and Florida still continue to be home to large percentages of our nation's foreign-born. But immigrants are increasingly dispersing17 to metropolitan areas outside these states. Fifteen states: Alabama, Arkansas, Colorado, Delaware, Georgia, Idaho, Kentucky, Minnesota, Nebraska, Nevada, New Mexico, North Carolina, Tennessee, South Carolina, and Utah experienced at least a two-hundred (200) percent increase in their immigrant populations between 1990 and 2009. (American Progress Team, 2012)

2.6 Recent History of Immigration Law

Immigration to the United States soared between 1970 and 2006, and has been shaped by the introduction of fourteen major bills; the most impactful bills will be

addressed in the following text (Giovanni, 2011). The Immigration and Nationality Act of 1965 abolished the national-origin quota system and replaced it with a framework emphasizing the importance of family ties. This new policy environment led to a substantial increase in the flow of immigrants. Following the first oil crisis, Congress became more restrictive, approving in 1973 H.R. 392 and H.R. 891. The first bill H.R 392, provided for employer sanctions to tackle the growing employment of undocumented immigrants. The second extended instead the applicability of the 20,000 per-country cap to migrants from the Western Hemisphere. This measure was designed to limit immigration from Mexico (Facchini & Steinhart, 2011). The IRCA or Immigration Reform and Control Act failed to stem the problem of undocumented immigrants entering the U.S. In order to address this concern, the Unauthorized Immigration Reform and Immigrant Responsibility Act: H.R. 2202, which was introduced in 1996. Besides increasing the size of the U.S. Border Patrol, the bill mandated the construction of a fence along the most heavily trafficked areas of the U.S.–Mexico border. Furthermore, it designated a pilot program to check the job applicant's immigration status. The act also made the deportation of unauthorized immigrants substantially easier. Importantly, it restricted access to federal and state benefits to all immigrants, legal or unauthorized. The law that preceded the Arizona Immigration Law SB1070 and Alabama's House Bill 56, was the controversial Border Protection, Anti-terrorism, and Unauthorized Immigration Control Act of 2005: H.R. 4437. Its major provisions were the creation of a U.S.–Mexico border fence up to 700 miles long and federal custody of locally detained unauthorized immigrants. Furthermore, the bill

imposed a fine of $3000 on all unauthorized immigrants captured in the U.S., who had previously agreed to leave the country voluntarily. It also provided for up to 5 years imprisonment for any person supporting or hosting undocumented immigrants (Fetzer, 2006). Since the bill was highly controversial, while it passed the U.S House of Representatives, it did not clear the U.S Senate.

2.7 Fiscal Impact of Unauthorized Immigration

There are various key issues regarding the monetary or fiscal impact of unauthorized immigration by determining if unauthorized immigrants receive more in social services than what they pay for in taxes. Unauthorized immigrants incur costs on the government that range from emergency health services, and matriculation in publics schools. Measuring the fiscal impact of unauthorized immigrants has yielded a range of competing estimates. As a result, though an exact monetary value cannot be discerned, it appears that illegal immigrants impose an overall fiscal cost, a cost that is concentrated at the state and local levels (Ramanujan, 2009).

2.7.1 Public Service Costs

In examining the use of public services by illegal immigrants, three distinct costs stand out:

1. Health care,
2. Education
3. Incarceration/Detention.

2.7.2 Healthcare

Though the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996 barred illegal immigrants from most public services, federal law continues to provide illegal immigrants with access to emergency medical services and assistance for pregnant women and infants. However, since maternity/infant assistance is given not only to a mother, but also for the benefit of US citizen children, the largest unilateral health cost that illegal immigrants impose is by way of emergency care. In terms of education, the Supreme Court decision *Lau v. Nichols* (1974) held that the rights of non-English-speaking students were violated when public schools did not take steps to teach them the language of instruction (Ramanujan, 2009). Furthermore, the case of *Plyler v. Doe* (1982) guaranteed illegal immigrant children public education. As a result, public schools are required to provide education to all students regardless of immigration status and are prohibited from requiring proof of status. The final major source of public costs stemming from illegal immigration comes from incarcerating those illegal immigrants who commit crimes while in the US. Before looking at studies that have measured the fiscal costs of illegal immigrants, it is important to examine the extent to which illegal immigrants are prone to use public services. Specifically, in terms of gender distribution, 4.9 million or (56%) percent of undocumented immigrants are adult males, 3.9 million or (37.5%) percent are adult females and 1.6 million or (15.4%) percent are undocumented children (Passel, 2005). Research on general trends in immigrant families indicates that immigrants are less likely than natives to use public services. An additional fear of being discovered by the immigration authorities could

potentially deter undocumented immigrants from utilizing public services. For example, a 2000 *Health Affairs* study determining health-care use among undocumented immigrants found that they are far less prone to use any health-care service available to them when compared with the resident population (Nadadur, 2009). Regardless of their alleged propensity to shy away from public services, figures indicate that illegal immigrants do utilize those services available to them. In looking at estimates of health care, for example, a comprehensive report released by the Center for Immigration Studies (CIS) in 2004 estimated that households headed by illegal immigrants create health-care costs totaling $658 million yearly at the federal level by imposing a significant burden on Medicaid and uncompensated emergency care. A similar study released by the Federation of American Immigration Reform (FAIR) held that, in 2004, uncompensated medical care accounted for $1.4 billion in illegal immigrant costs on. Since these studies focus on entire households, they do not necessarily account for the fact that a significant portion of this service benefits US citizen children and is, thus, not a fiscal cost imposed by illegal immigrants directly. Another important study released by the Urban Institute in 1995 showed aggregate Medicaid and emergency care costs of $445 million annually in the seven states with the highest concentration of undocumented immigrants. These seven states are: California, New York, New Jersey, Texas, Florida, Illinois and Arizona. Although the study was undertaken before 1996 legislation barred illegal immigrants from significant health-care benefits, and the monetary value measured has not been adjusted for 10 years of inflation, the range of findings that these three studies present indicates that there has not been sufficient

consensus regarding the health costs of illegal immigrants. This reflects the conclusion reached by a Government Accountability Office (GAO) study which held that 'until reliable information is available on undocumented aliens and the costs of their care, accurate assessment of their financial effect on hospitals will remain elusive at best (Ramanujan, 2009).

2.7.3 Education

The CIS estimate released in 2004 indicated that education costs $371 million per year at the federal level. The estimate, however, did not include state-level expenditures on education which account for the majority of education costs. In looking at state-level costs, the 2004 FAIR study found that illegal immigrants impose a $3.2 billion yearly cost on education in California. As noted before, these studies focus on household expenditures and do not take into account US citizen children as part of illegal immigrant households. Finally, the Urban Institute study of 1995 found that education was the highest public expenditure that illegal immigrants imposed, accounting for a total of $3.08 billion dollars in the seven states surveyed, with California bearing a burden of $1.3 billion annually (Ramanujan, 2009).

2.7.4 Incarceration/Detention

In examining incarceration costs, a study released by the Urban Institute in 2000 based on the initial estimates of the 1995 study indicated that 14,262 illegal immigrants were identified among state prisoners in 1995 from California, Texas, New York, Florida, Illinois, Arizona and New Jersey. Based on the costs of housing single prisoners, the total cost of incarcerating illegal immigrant prisoners was $474.2 million

per year in the seven states, with California facing a cost of $367.7 million. The 2004 FAIR study, on the other hand, reported that incarceration cost California alone $1.4 billion in 2003 (Ramanujan, 2009).

2.8 Anti-Illegal Immigration Legislation

There has been an increasing development of legislation directly opposing unauthorized immigration. Many states have move to enact laws that are targeted towards the elimination of unauthorized immigration. This development of increased legislation has been driven by the Arizona's SB 1070; which in 2010 was considered the harshest anti-unauthorized immigration law in the nation. In present time Alabama's HB 56 is touted to be the nation's harshest law. Figure 3 below graphically depicts the states that have also copy-catted or enacted laws like HB 56 and like SB 1070. (Center for American Progress Team, 2012)

- Arizona
- Utah
- Georgia
- Indiana
- Alabama
- South Carolina

All these states have enacted immigration enforcement laws that target unauthorized immigrants and increase the authority of local police to enact immigration enforcement policies. The passage of these measures has undoubtedly created a deeply hostile climate for all people of color, citizen or not. The Center for American Progress

have plotted some of the damages created by these laws, as well as a country wide diagram of the states that have passed or might pass laws similar to HB 56.

2.8.1 Arizona

Arizona S.B. 1070 was enacted April 2010, if fully implemented and all undocumented immigrants were driven from the state: Employment would drop by 17.2 percent, 581,000 jobs would be eliminated for immigrant and native-born workers alike, the state economy would shrink by $48.8 billion, and state tax revenues would be reduced by 10.1 percent (American Progress Team, 2012).

2.8.2 Georgia

Georgia's H.B. 87 was enacted in April 2011. The law has already caused severe labor shortages as workers and their families avoid the unwelcoming state. The state lost an estimated $300 million in un-harvested crops with a total possible statewide impact of $1 billion in 2011 alone (American Progress Team, 2012).

2.8.3 Alabama

Alabama's H.B. 56, the nation's toughest immigration law, was passed in June 2011. Though a federal court has put a temporary hold on many of the most severe provisions of the law, an Alabama district judge allowed some extreme measures to go into effect in the fall of 2011, causing much damage to the state's economy, society, and reputation. It's estimated that the state economy will lose up to $10.8 billion (6.2 percent of its GDP) and up to 140,000 jobs (American Progress Team, 2012).

2.8.4 Utah, Indiana, and South Carolina

Have all passed anti-immigrant measures in the spring of 2011. The bills signed into law in all three states include Arizona-style enforcement provisions (American Progress Team, 2012).

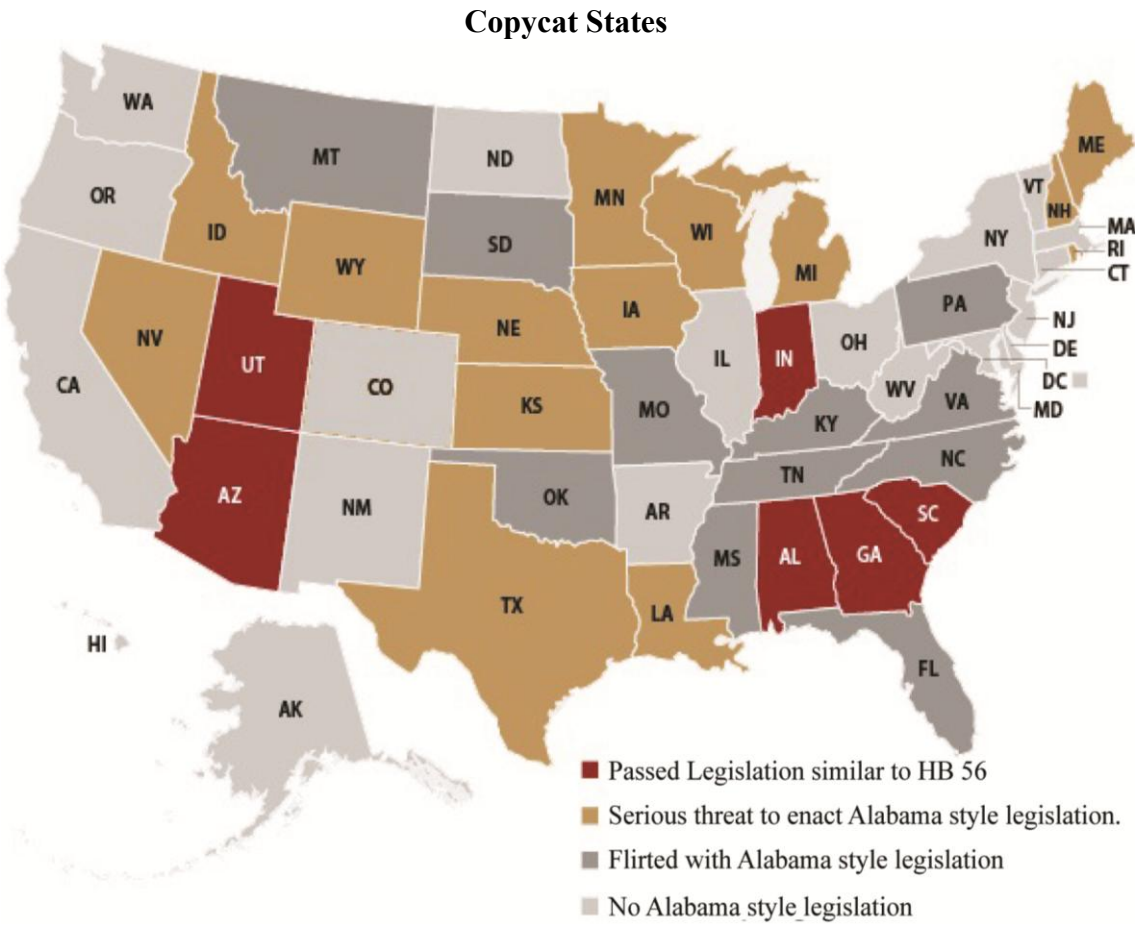

Figure 3: Copycat States. States with legislation similar to HB 56. Source: Center for American Progress

2.9 Affected Areas

According to the U.S Bureau of Economic Analysis and Center for Business and Economic Research, there are three main employment sectors that have the highest

concentration of unauthorized immigrants in the United States: they are agriculture, food services and construction. In Alabama specifically the breakdown in the unauthorized construction labor force percentage is 40.9%.

Table 2, shows in thousands the number of workers in the construction industry as a whole.

Table 2: Employments Rate, in Alabama Per Year. Source: U.S Department of Labor Statistics

Total Construction Employment (Alabama) per Year

State	2009 Year Avg.	2010 Year Avg.	2011 Year Avg.	2012 Jan.
Alabama	91.7	87.2	78.9	70.1

2.10 Unauthorized Immigrants in Construction

By looking at the total construction employment rate, and looking at the percentage of unauthorized immigrants working in construction, then it can be inferred that unauthorized immigrants hold roughly (37,500) jobs. Table 2 taken from the U.S Department of Labor Statistics, shows clearly seen that there has been a change in the construction employment rate. The U.S Department of Labor also shows that the average weekly hours worked, average hourly earnings, and average weekly earnings have decreased substantially since the passage of the law (table 3).

Table 3: Average Hours & Earnings Construction Employees, Alabama. Source: Alabama Department of Labor

Construction Earnings Per Month (Alabama)

	Average weekly hours			Average hourly earnings			Average weekly earnings		
State	Sep. 2011	Aug. 2012	Sep. 2012	Sep. 2011	Aug. 2012	Sep. 2012	Sep. 2011	Aug. 2012	Sep. 2012
Alabama	43.4	40.9	40.7	19.6	20.51	20.30	850.64	838.86	826.21

By looking U.S Department of Labor Statistics Data, since the end of 2009 until September of 2011, Alabama has lost in ($390,774,489) dollars in personal earnings. If the entire unauthorized immigrant population was to vacate all construction jobs the impact of personal earnings would be in the range of ($1,658,982,436) dollars. The research also shows that the majority of the unauthorized construction labor force is made up of six (6) trades; they are as follows: concrete, masonry, drywall, painting, flooring, and roofing. (Golden, and Skibniewki, 2010)

2.11 Cost Data Analysis of HB 56

Professor Samuel Addy, from at the University of Alabama concludes that the, "the law's economic costs include implementation, enforcement, and litigation expenditures; increased costs and inconveniences for citizens, other legal residents, and businesses; fewer economic development opportunities; and the economic impact of reduced aggregate demand as some unauthorized immigrants leave and therefore no longer earn and spend income in the state (Addy, 2012). The annual economic and fiscal impacts of the reduction in aggregate demand caused by 40,000-80,000 unauthorized

immigrant workers who earn in the range of $15,000 to $35,000 annually leaving the state are reductions of about:

1. 70,000-140,000 jobs with $1.2-5.8 billion in earnings
2. $2.3-10.8 billion in Alabama Gross Domestic Product (GDP)
3. 1.3-6.2 percent of the state's $172.6 billion GDP in 2010
4. $56.7-264.5 million in state income and sales tax collections
5. $20.0-93.1 million in local sales tax collections (Addy, 2012).

3. METHODOLOGY

The methodology approach to the research is designed to analyze and validate the impact of Legislation HB 56 on the construction industry in Alabama. This will be accomplished by mixed methodologies, combining both quantitative and qualitative research methodologies.

3.1 Quantitative

- Employment Rates: U.S Department of Labor Statistics
- Construction GDP: U.S Bureau of Economic Analysis
- Construction Spending: U.S Census Bureau

State Pre-Determination:

In order to determine the states that are used in the employment rate, construction GDP, and construction spending comparatives, a filtering system was designed to eliminate states that did not compare similarly to Alabama in the following manner:

1. Share of Illegal Immigration labor force as a percent of entire population for 2010. (Appendix A)
2. Similar Construction GDP per State for 2009 & 2010. (Appendix B)
3. Since Alabama passed HB 56, the filter was looking at states that had neither passed nor brought to vote legislation similar to HB 56. (Appendix C)

3.1.1 Results of State Filter

The states that managed to meet all the baseline requirements to be comparable to Alabama are as follows:

1. Colorado
2. Connecticut
3. Oregon

All these states met the needed criterion to create a comparable baseline. Each state will be compared to Alabama, individually, in employment rates, construction GDP, and construction spending. All modeling data will be gathered from the Department of Labor Statistics, Bureau of Economic Analysis, and The U.S. Census Bureau. See Appendix A, B, and C for state filter breakdown.

In the quantitative methodology three sub-groups will be used to perform the statistical analysis; T-Tests of the data will be used to determine significant change:

3.2 Sub-Groups

- Sub Group 1: Employment Rates: 1 year pre legislation, 1 year post law
    - Alabama T-Test Equal Variance
    - Alabama vs. Colorado T-Test Unequal Variance
    - Alabama vs. Connecticut T-Test Unequal Variance
    - Alabama vs. Oregon T-Test Unequal Variance
- Sub Group 2: Construction GDP: 2010 & 2011
    - Alabama: 2010 & 2011 T-Test Equal Variance
    - Alabama vs. Colorado: 2011 T-Test Unequal Variance

        - Alabama vs. Connecticut: 2011 T-Test Unequal Variance
        - Alabama vs. Oregon: 2011 T-Test Unequal Variance
    - Sub Group 3: Construction Spending: 2010 & 2011
        - Alabama: 2010 & 2011 T-Test Equal Variance
        - Alabama vs. Colorado: 2011 T-Test Unequal Variance
        - Alabama vs. Connecticut: 2011 T-Test Unequal Variance
        - Alabama vs. Oregon: 2011 T-Test Unequal Variance

3.2.1 Why Employment Rates

Employment rates were chosen for statistical analysis, since companies count unauthorized immigrants as part of their work force. While unemployment rates are typically derived from the number of unemployment claims, per state per labor field; unauthorized immigrants cannot claim unemployment, as their unauthorized status does not allow them to do so.

3.2.2 Why T-Test

- There are two samples from two populations. (The samples can be different sizes.)
- The two samples are independent.
- Both populations are normally distributed or both sample sizes are large enough that the means are normally distributed.
- Both population and their perspective standard deviations, σ_x and σ_y, are unknown, but are assumed to be not equal.
- Once the p-value is known, compare it to $\alpha(0.05)$, the significance level.

3.2.3 Why Unequal Variance Test

- The unequal variances test can be used even if the variances are equal. If the variances are equal, it is not as powerful as the pooled variance test, but it is the safe option.

3.3 Qualitative

Construction companies were found on the Licensed Contractors listing at the Alabama.gov website.

- Phone Survey
    - 6 Sub-Contractor trades: 10 participants per trade
    - Concrete, masonry, drywall, framing, flooring, painting.
    - IRB Protocol #: IRB2012-0753

4. ALABAMA

The first part of the research will analyze the impact HB 56 had on the employment rates in construction for Alabama. The second part of the data gathering and analysis will focus on Construction GDP, while the third part of the data gathering and analysis will focus on Construction Spending

A similar type of format will be applied when comparing Alabama vs. the three pre-determined states.

4.1 Alabama Employment Rates: Data Gathering

Data analysis will be performed by looking at the time frame spanning from July 2010 to July 2012. This time frame was selected to show the employment rates at one (1) year pre and one (1) year post the passage of the legislation. Since the passage of the law, is a phased event, the data will show the impact of House Bill 56 throughout four (4) parts.

- Part 1: Graphical representation of the employment rates one (1) pre and one (1) post legislation (figure 4).
- Part 2: Employment data for second half of 2010
- Part 3: Employment data for entire 2011
- Part 4: Employment data for first half of 2012

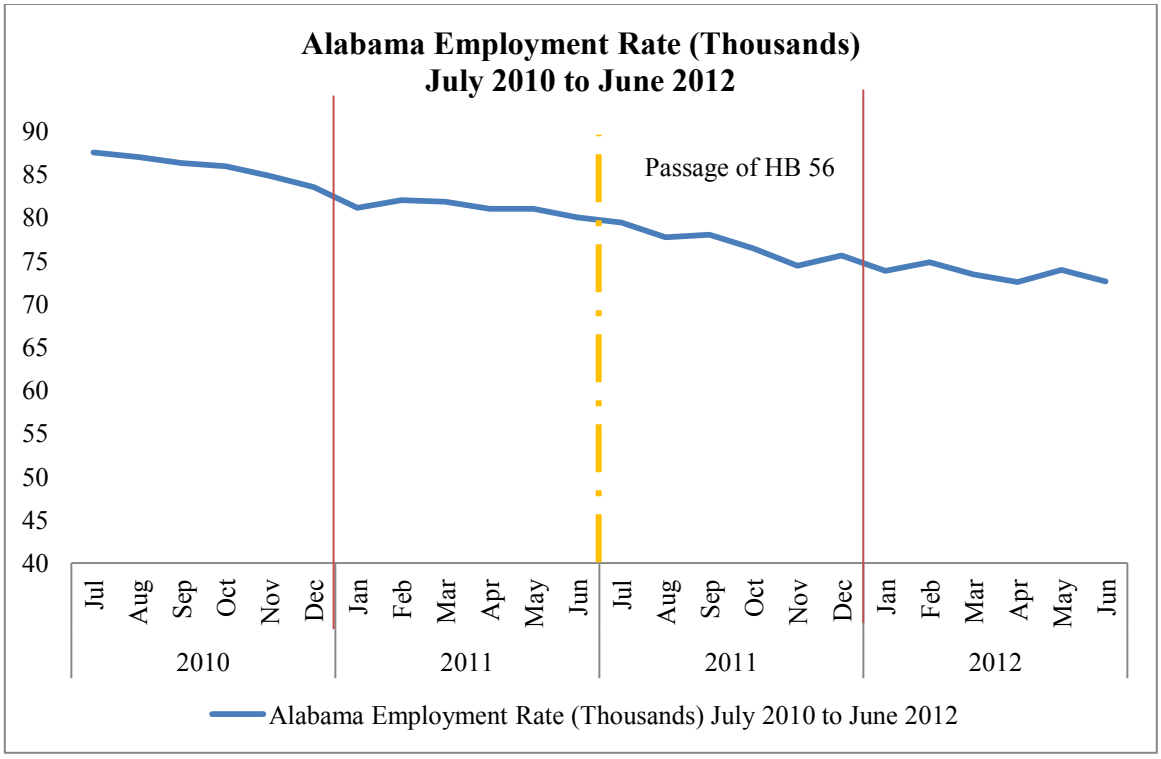

Figure 4: Construction Employment Rates, Alabama: July 2010 to June 2012. Source: U.S. Department of Labor Statistics

Part 2: The employment construction rate in Alabama from July 2010 until December 2010 fell from 87,500 to 83,500 thousand. This show that the construction employment rates in Alabama shrunk in the second half of 2010 by a total of 4000 jobs. The data shows that Alabama employment rate was decreasing at a rate of close to 800 jobs per month for that six (6) month span (table 4).

Table 4: Construction Employment rates, Alabama: July 2010 to December 2010. Source: U.S Department of Labor Statistics

Construction Employment Rates for Alabama July 2010 until December 2010 (Thousands)

Month	July	August	September	October	November	December
Rate	87.5	87.0	86.3	85.9	84.8	83.5

Part 3: The first half of 2011 shows that although regression occurs from January until June the regression is minimal (table 5). From January to February the employment rates actually increased. By plotting the data of the first half of the year, it shows a trend of stability, which the previous six (6) did not show. It shows almost a plateau, in which employment rates kept at a consistently steady for the entire 6 months. The second half of the year shows a significant change in employment rates (table 6). From July to December the employment rate dropped by 3800 jobs. The signing into law of legislation HB 56, occurred on July 3rd 2011, it can be seen immediately see that a downward trend began in the number of workers being employed (table 6). This is also verified by the steady plateau in the number of employment rates that the state had in the first six (6) months of 2011(table 5).

Table 5: Construction Employment Rates, Alabama: January 2011 to June 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Alabama January 2011 until June 2011 (Thousands)

Month	January	February	March	April	May	June
Rate	81.1	82.0	81.8	81.0	81.0	80.0

Table 6: Construction Employment Rates, Alabama: July 2011 to December 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Alabama July 2011 until December 2011 (Thousands)

Month	July	August	September	October	November	December
Rate	79.4	77.7	78.0	76.4	74.4	75.6

Part 4: From January of 2012 to June of 2012, the construction employment rate in Alabama continued to regress. A loss of 1200 jobs for the first half of 2012, cumulative the total loss since July 2011 (passage of HB 56) was 6800 jobs (table 7).

Table 7: Construction Employment Rates, Alabama: January 2012 to June 2012. Source: U.S Department of Labor Statistics

Construction Employment Rates for Alabama January 2011 until June 2012 (Thousands)

Month	January	February	March	April	May	June
Rate	73.8	74.8	73.4	72.5	73.9	72.6

4.2 Alabama Employment Rates: Analysis and Results

The initial step is a T-Test analysis shows that there has been a significant change in the employment rates one-year pre legislation to one-year post legislation. Table 8 shows that overall the construction employment rates have had significant changes since July of 2010. From July 2011, until June of 2012, the employment rate dropped 6,800 jobs. Numerically since the initial passage of the law Alabama has experienced a total reduction in the entire construction employment rate of 9.36%.

Table 8: T-Test Two-Sample Assuming Unequal Variances: 1 Year Pre to 1 Year Post legislation.

Null Hypothesis: There has been no change in the employment rate in Alabama 1 year pre to 1 year post

	1 year pre	*1 year post*
Mean	83.492	75.208
Variance	7.199	5.006
Observations	12.000	12.000
Hypothesized Mean Difference	0.000	
DF	21.000	
t Stat	8.213	
P(T<=t) two-tail	0.00020	
t Critical two-tail	2.080	

Reject Null Hypothesis: P Value is smaller than 0.05

4.3 Alabama Construction GDP

The second part in the analysis of HB 56 on the construction industry in Alabama is derived from looking at the construction GDP. Gross domestic product by state is measured in millions of current dollars. GDP by state is the value added in production by the labor and capital located in a state.

For example GDP by metropolitan area is the amount of the market value of all final services and goods produced within a metropolitan area annually. In concept, an industry's GDP by state, referred to as its "value added", is equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported).

The Bureau of Economic Analysis or BEA prepares GDP by state estimates for 64 industries. For each industry, GDP by state is composed of three components:

1. Compensation of employees
2. Taxes on production and imports less subsidies
3. Gross operating surplus

BEA prepares estimates of GDP by State in millions of current dollars and of real GDP by state in millions of current since (2005) in dollars. BEA gives the total current value at the end of the year; BEA does not give monthly, bi-monthly, or quarterly, only an annual value. The estimates of real GDP by state are derived by applying national implicit price deflators to the current-dollar GDP by state estimates for the detailed industries. These estimates of real GDP by state reflect the uniqueness of each state's industry mix, but they do not reflect differences by state in the prices of goods and services produced for local markets ("Census.gov" 2006). Current dollar GDP by state and the current dollar components of GDP by state (compensation of employees, taxes on production and imports less subsidies, and gross operating surplus) are presented in millions of current dollars. Looking at the construction GDP is an indicative if the state's economy is growing or is regressing.

4.4 Alabama Construction GDP: Data Gathering

Table 9: Construction GDP Alabama Per Year source: U.S Bureau of Economic Analysis

State	2009	2010	2011
Alabama	7,654	7,617	6,975

4.5 Alabama Construction GDP: Analysis and Results

The reduction in Construction GDP denotes a contraction in the construction economy in the state of Alabama. Since GDP in a nutshell measures the final value of goods and services, a reduction in GDP is a true indicator in what direction the economy is headed; both table 9 and figure 5 depict this.

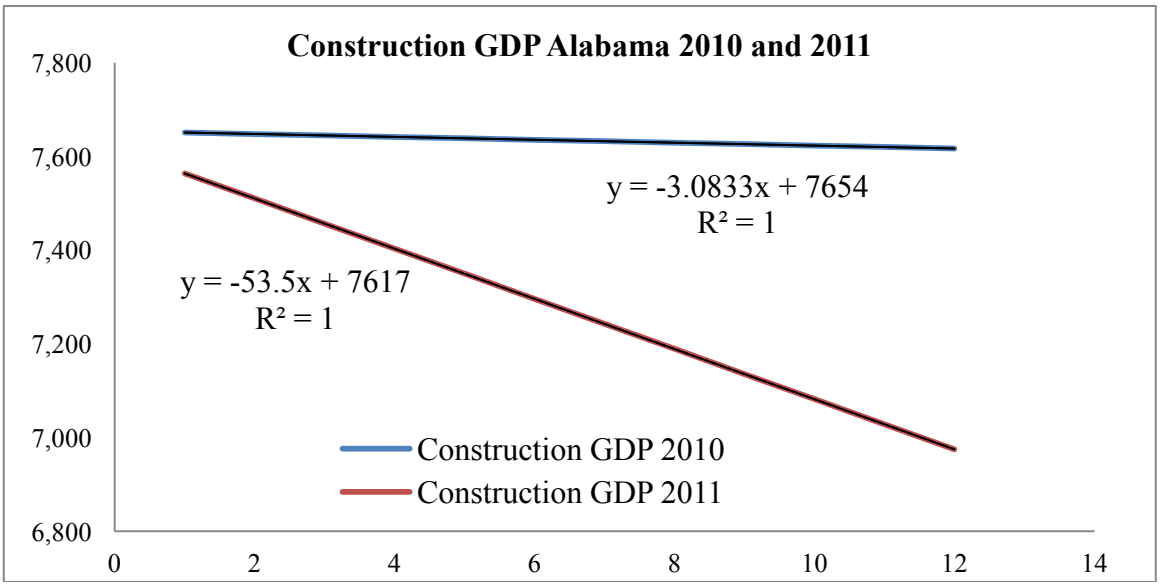

Figure 5 : Construction GDP in Alabama: 2010, and 2011 Source: U.S Bureau of Economic Analysis

The data shows, that the construction GDP in Alabama has regressed from (7,617) to (6,975) in millions of current dollars. This is confirmed by the change in the slope intercept; in 2010 it was (-3.083) compared to 2011 in which it was (-53.5). The T-Test also shows that there has been a significant change in the GDP in the two-year span since the test showed a P Value smaller than (0.05) (table 10)

.

Table 10: T: Test: Two-Sample Assuming Unequal Variances. Construction GDP 2010 to 2011

Null Hypothesis: There has been no change in the Construction GDP in Alabama from 2010 to 2011

	2010	*2011*
Mean	7633.9	7269.2
Variance	123.59	37209.2
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	6.538691	
P(T<=t) two-tail	4.20E-5	
t Critical two-tail	2.200985	

Reject Null Hypothesis: P Value is smaller than 0.05

4.6 Alabama Construction Spending

The third part in the analysis of HB 56 on the construction industry in Alabama is derived from looking at the Selected Private Nonresidential Construction Put in Place, or Construction Spending. The NYU Stern School of Business states that" Economists look to construction spending for clues about the overall economy"; while AGC (Associated General Contractors of America) state that construction spending indicatives whether employers are hiring workers. Econoday states "Construction spending has a direct bearing on stocks, bonds and commodities because it is a part of the economy that is affected by interest rates, business cash flow and even federal fiscal policy. In a more specific sense, trends in the construction data carry valuable clues for the stocks of home builders and large-scale construction contractors."

4.6.1 Source of Information

These statistics are estimated from the sample of projects used to collect monthly the value of private nonresidential construction put in place. In the private nonresidential survey, owners are asked to report the amount of work done on their projects each month until completion.

4.6.2 Definitions

The annual value of construction put in place or Construction Spending is the cumulative value of work done on projects active during the year. U.S Census Bureau gives the total million-dollar value at the end of the year; the Census Bureau does not give monthly, bi-monthly, or quarterly, only an annual value. For this supplement, estimates have been made for selected types of construction within some of the major categories. These types of construction are defined as follows:

- Lodging
- Office
- Financial
- Commercial
- Automotive
- Sales
- Food/beverage
- Retail Stores
- Health Care
- Medical Building

- Special Care
- Educational
- Other Educational
- Religious
- Amusement and Recreation

4.7 Alabama Construction Spending: Data Gathering

Table 11: Construction Spending Alabama Per Year source: U.S Census Bureau

State	2009	2010	2011
Alabama	7,659	5,568	2,972

4.8 Alabama Construction Spending: Analysis and Results

The reduction in the overall construction spending in 2010 came to a total reduction of (2,091) millions of dollars or 27.3%. From 2010 to 2011 the drop in construction spending totaled (2,596) millions of dollars or 46.6% this is depicted by both table 11 and figure 6.

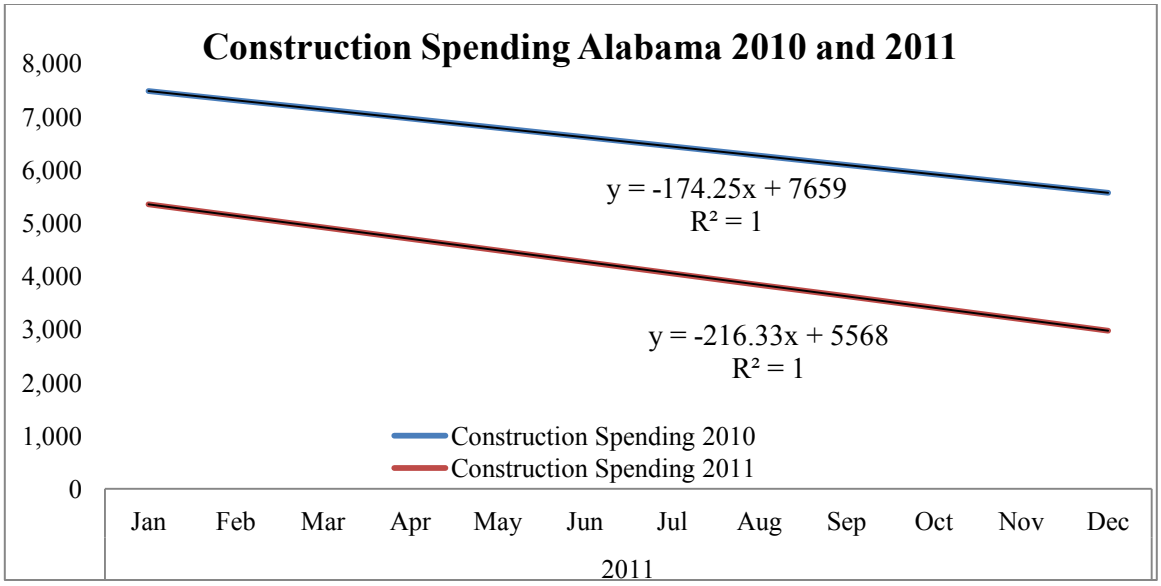

Figure 6: Construction Spending Alabama 2010 and 2011. Source: U.S. Census Bureau

The T-Test shows a significant change in Construction Spending for Alabama from 2010 to 2011. The Null Hypothesis is rejected, as there is a significant change in Construction Spending from 2010 to 2011 (table 12). 2011 shows a staggering reduction of 46.6%, which is confirmed by the slope intercept lines of the two data sets, 2010 (-174.25) and 2011 (-216.33). Although Construction Spending was trending downwards in 2010, the trend line exacerbated downwards in 2011 by almost 19% more than the previous year.

Table 12: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Alabama 2010 to 2011

Null Hypothesis: There has been no change in the Construction Spending in Alabama from 2010 to 2011

	Construction Spending 2010	*Construction Spending 2011*
Mean	6526.3	4161.83
Variance	394719.8	608401.4
Observations	12	12
Hypothesized Mean Difference	0	
DF	21	
t Stat	8.17	
P(T<=t) two-tail	5.7E-8	
t Critical two-tail	2.0796	

Reject Null Hypothesis: P Value is smaller than 0.05

4.9 Summary of Findings

Utilizing construction GDP and Construction Spending; the data clearly shows that the economy in Alabama has regressed in 2011. 2010 was a year of decline as well, yet 2011 shows an increase in the decline of Construction both in the GDP and Spending sectors. The data depicts a definite decrease in the productivity and construction industry in Alabama. All three aspects of construction saw a decline across the board. With construction Spending seemingly taking the blunt of the decrease. It is also important to show that the numerical numbers given of Construction GDP and Construction Spending, are annual numbers. So the only way to determine is HB 56 has had an impact on the industry is by linking employment rates. Knowing the monthly employment rates numbers allows for a more precise

argument as to the impact of HB 56. An even though Alabama was on a downward trend, it can be clearly seen from the data four (4) major points:

1. Since July 2010 to June 2012, Alabama has lost a cumulative 14,900 construction jobs.
2. Construction employment rates in Alabama, six (6) months prior to HB 56 and it's signing into law, had a (1,100) jobs reduction; after July 2011 Alabama employment rate dropped by (6,800) jobs to June 2012. A 618% increase in the drop in employment rates.
3. Alabama's employment rates significantly dropped by 6800 workers since the passage of the law.
4. Construction GDP in the two-year span decreased by almost 8.5%. In 2010 it decreased by -0.48% while in 2011 it decreased by -8.43%
5. Construction Spending in Alabama decreased by 27.3% in 2010, in 2011 is decreased by 46.6%.

5. STATE COMPARISON

5.1 Alabama vs. Colorado

The same concept that was used to determine the effects of HB 56 on Alabama will be used to compare the baseline state (Alabama) to three (3) other states. Data gathering, analysis, and results will be performed by comparing Alabama vs. State in three ways.

1. Part 1 testing for significant change in employment rates (1) one year pre and (1) one year after the passage of the legislation, Colorado.
2. Test for significant change in Construction GDP for 2011 Alabama vs. Colorado.
3. Test for significant change in Construction Spending for 2011 Alabama vs. Colorado.

5.2 Colorado Employment Rates: Data Gathering

The employment construction rate in Colorado from July 2010 until December 2010 rose from 113,700 to 144,000 thousand. This show that the construction employment rates in Alabama grew in the second half of the year by a total of 300 jobs. This growth is a very modest amount, yet the trend line shows stability in the last six (6) months. The data shows that Colorado's employment rate was decreased in August and September by 1000 jobs. In the last two months of the year it rose by 1300 jobs. By comparing the changes at from July to December, the amount of jobs growth in hiring, is 0.02%, (table 13).

When the two states are compared, it can be seen that although Colorado's employment rate had a menial or no real increase, it grew; compared to Alabama's rates which lost 4000 jobs, or 4.5% of its work force.

Table 13: Construction Employment Rates, Colorado: July 2010 to December 2010. Source: U.S Department of Labor Statistics

Construction Employment Rates for Colorado
July 2010 until December 2010 (Thousands)

Month	July	August	September	October	November	December
Rate	113.7	112.9	112.7	113.3	113.2	114

From January 2011 until December 2011 just like the previous year, shows the employment rates are stabilized. The first half of the year shows a decrease in the overall in the employment rates. Although some months show an increase in hiring, by June the total difference from January is (-4000) jobs. By plotting the data of the first half of the year, it shows a negative trend of hiring reduction, which the previous six (6) did not show (table 14). From July to December the employment grew by 2000 jobs (table 15). If taken from June to December the increase was 2300 jobs. This growth is starkly different from what was depicted by Alabama's employment rates. Colorado saw growth, at the same time that Alabama began to regress.

Table 14: Construction Employment Rates, Colorado: January 2011 to June 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Colorado January 2011 until June 2011 (Thousands)

Month	January	February	March	April	May	June
Rate	114.4	112.5	112.6	113.1	111.3	110.4

Table 15: Construction Employment Rates, Colorado: July 2011 to December 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Colorado July 2011 until December 2011 (Thousands)

Month	July	August	September	October	November	December
Rate	110.7	111.8	111.6	111.5	111.1	112.7

The start 2012 still denotes an enormous spike in the construction employment rates. From December 2011 to January 2012 Colorado increased it employment rates by (5400) jobs. The remaining months show variability in the rates, yet it still hovers close to the mean for the six (6) months which is 117,500 (table 16). Alabama in the same six (6) month span saw a cumulative loss of 1200 jobs.

Table 16: Construction Employment Rates, Colorado: January 2012 to June 2012. Source: U.S Department of Labor Statistics

Construction Employment Rates for Colorado January 2012 until June 2012 (Thousands)

Month	January	February	March	April	May	June
Rate	118.1	116.8	116.7	117.7	118.6	117.1

5.3 Colorado Employment Rates: Analysis and Results

The first step was to determine if there was a significant change in the employment rate 1 year pre legislation to 1 year post between Alabama and Colorado. An initial T-Test was done to see if there has been a significant change in the employment rate in Colorado for the two year span (table 17). The data shows while Colorado's construction employment rate has added (3400) jobs; it is still not a significant change. We accept the Null hypothesis; there has been no change in the construction employment rates in the two year time frame in Colorado. When compared to Alabama, Colorado has not had any decrease in their labor force, in the two year time frame. Alabama saw a reduction of 14,900 jobs.

Table 17: T-Test Two-Sample Assuming Unequal Variances: Employment Rates Colorado: 1 Year Pre, 1 Year Post legislation.

Null Hypothesis: There has been no change in the employment rate in Colorado 1 year pre 1 year post

	1 year pre	*1 year post*
Mean	112.8417	114.5333
Variance	1.222652	10.07515
Observations	12	12
Hypothesized Mean Difference	0	
DF	14	
t Stat	-1.74345	
P(T<=t) two-tail	0.103164	
t Critical two-tail	2.144787	

Accept the null hypothesis. P value is larger than .05

5.4 Alabama vs. Colorado Construction GDP: Data Gathering

Table 18: Construction GDP Alabama and Colorado Per Year, Source: U.S Bureau of Economic Analysis

State	2009	2010	2011
Alabama	7,654	7,617	6,975
Colorado	10,289	9,369	9,462

5.5 Alabama vs. Colorado Construction GDP: Analysis and Results

The data shows, that the construction GDP in 2010 decreased from (10,289) to (9,369), a 10% decrease; while in 2011 it grew from (9,369) to (9,462) in millions of current dollars a 0.009% increase (table 18 & figure 7).

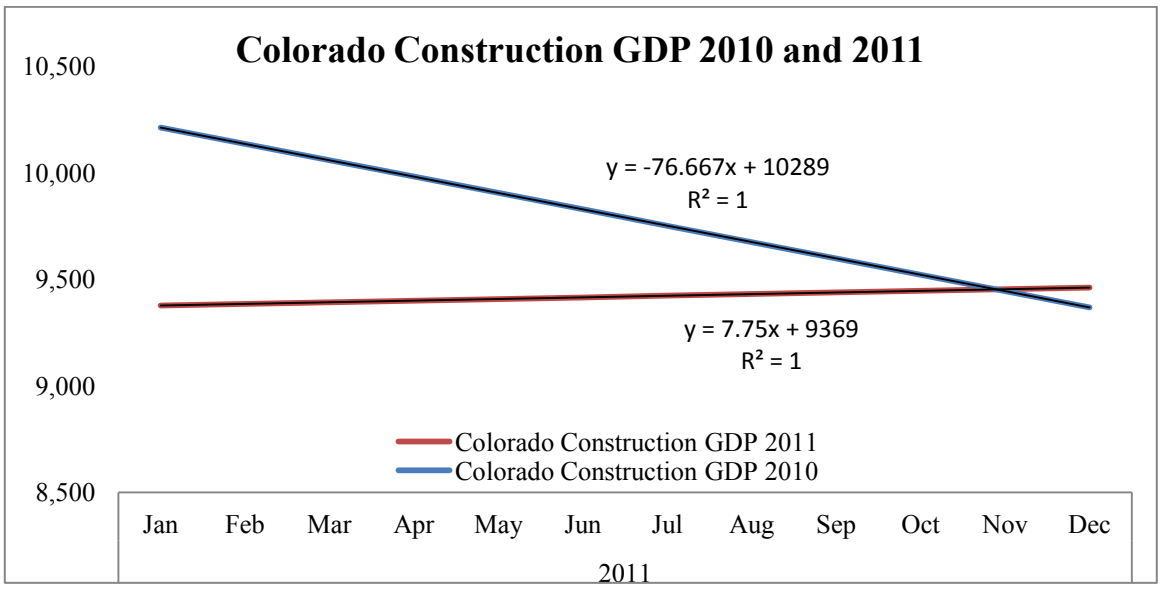

Figure 7: Colorado Construction GDP, 2010 to 2011 Source: U.S Bureau of Economic Analysis

The T-test shows that there has been a significant change in the Construction GDP in Colorado from 2010 to 2011. The Null hypothesis stated that there has been no change in Construction GDP in the two year span, since the T-Test analysis shows a P Value smaller than (0.05), then the Null Hypothesis is rejected (table 19).

Table 19 : T-Test Two-Sample Assuming Unequal Variances: Construction GDP Colorado 2010 and 2011

Null Hypothesis: There has been no change in the Construction GDP in Colorado from 2010 to 2011

	GDP 2010	*GDP 2011*
Mean	9790.6	9419.3
Variance	76411.1	780.8
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	4.62	
P(T<=t) two-tail	0.000729	
t Critical two-tail	2.200985	

Reject Null Hypothesis: P Value is smaller than 0.05

The data shows, that the construction GDP in Colorado contracted from 2009 to 2010 by a total of 8.94%. It showed a significant growth from 2010 to 2011. This shows upwards trending in the construction GDP for the year 2010 and 2011

By looking at the data for both states construction GDP, both shrunk in 2010, by running a T-Test for 2011 of Alabama vs. Colorado the results show a significant difference (table 20).

Table 20: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Alabama vs. Colorado 2011

Null Hypothesis: There has been no significant change in Construction GDP of Alabama when compared to Colorado in 2011

	Alabama	*Colorado*
Mean	7269.25	9419.375
Variance	37209.25	780.8125
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	-38.2137	
P(T<=t) two-tail	0.000000000000477	
t Critical two-tail	2.200985	

Reject Null Hypothesis: P Value is smaller than 0.05

Colorado construction GDP grew in 2011, while Alabama's contracted significantly in 2011. This increase in Construction GDP denotes growth in the construction economy in the state of Colorado (figure 8). In 2010 decreased by 8.94% in 2011 it increased by 1%

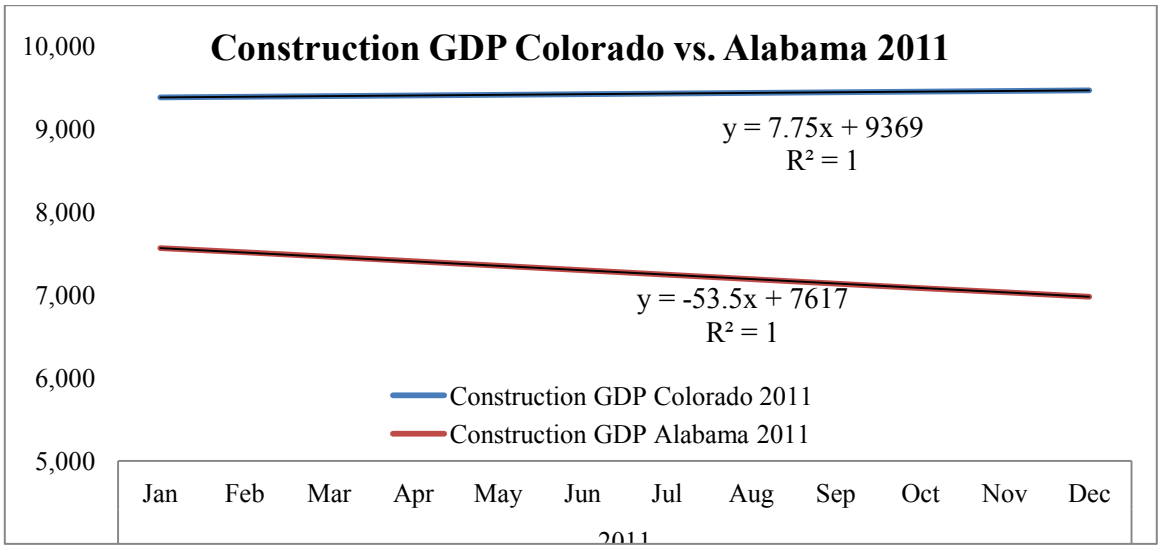

Figure 8: Construction GDP, Alabama vs. Colorado 2011 Source: Bureau of Economic Analysis

5.6 Alabama vs. Colorado Construction Spending: Data Gathering

Table 21: Construction Spending Alabama and Colorado Per Year, Source: U.S Census Bureau

State	2009	2010	2011
Alabama	7,659	5,568	2,972
Colorado	4,643	2,751	2,563

5.7 Alabama vs. Colorado Construction Spending: Analysis and Results

Colorado saw a reduction in Construction Spending in 2010 from (4,643) to (2,751), while in 2011 Construction Spending continued regressing from (2,725) to (2,563). Running a T-Test of this data, the Null Hypothesis was rejected, there has been a significant change in Colorado's Construction Spending from 2010 to 2011 (table 22).

Table 22: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Colorado 2010 and 2011

Null Hypothesis: There has been no change in the Construction Spending in Colorado from 2010 to 2011

	2010	*2011*
Mean	3618.1	2649.1
Variance	323164.1	3190.7
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	5.87	
P(T<=t) two-tail	0.000107	
t Critical two-tail	2.20	

Reject Null Hypothesis: P Value is smaller than 0.05

By looking at the slope intercepts for the two years, we can assume that the driving force behind the significant change in the Construction Spending came from the changes that occurred in 2010. The slope intercepts being (-157.67) in 2010 and (-15.667) in 2011. Although construction Spending plummeted downwards in 2010, it flat lined in 2011 (figure 9).

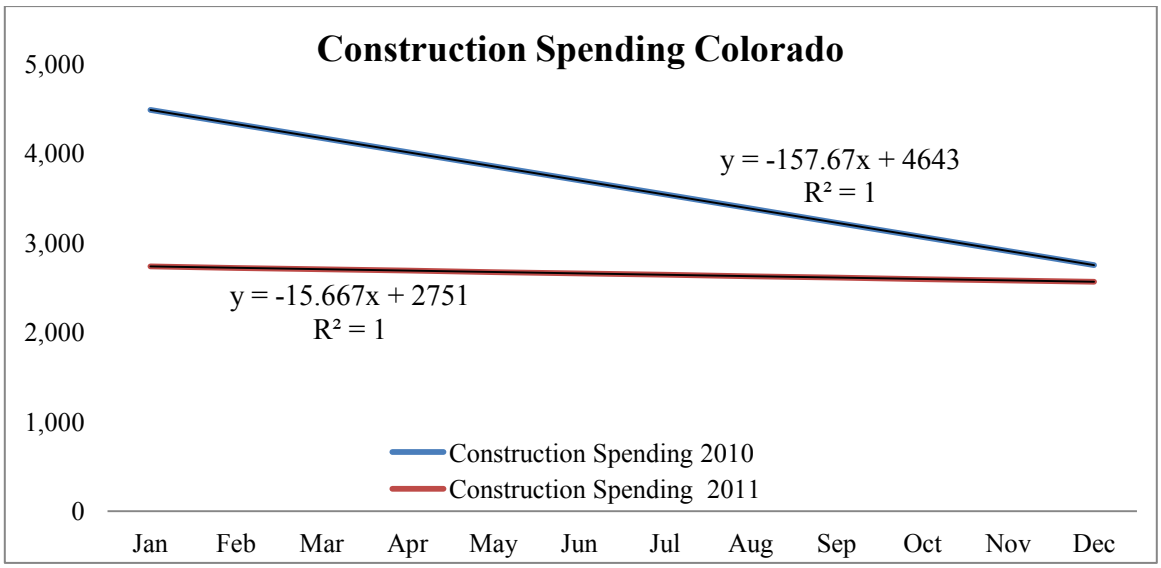

Figure 9 : Colorado Construction Spending, 2010 to 2011 Source: U.S Bureau of Economic Analysis

The last test determines if there is a significant change in Construction spending in Alabama, when compared to Colorado. The T-Test rejects the Null Hypothesis, and as such there is a significant change in Construction Spending when the two states are compared (table 23)

Table 23: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Alabama vs. Colorado 2011

Null Hypothesis: There has been no significant change in Construction Spending of Alabama in 2011 when compared to Colorado in 2011

	Alabama	*Colorado*
Mean	4161.8	2649.16
Variance	608401.4	3190.77
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	6.70	
P(T<=t) two-tail	3.37E-5	
t Critical two-tail	2.20	

Reject Null Hypothesis: P Value is smaller than 0.05

Alabama's construction spending has a slope intercept of (-216.33) while Colorado's has (-15.667) for 2011 (figure 10). Construction Spending in Colorado showed little to no change in 2011, it only decreased by (-0.068%).

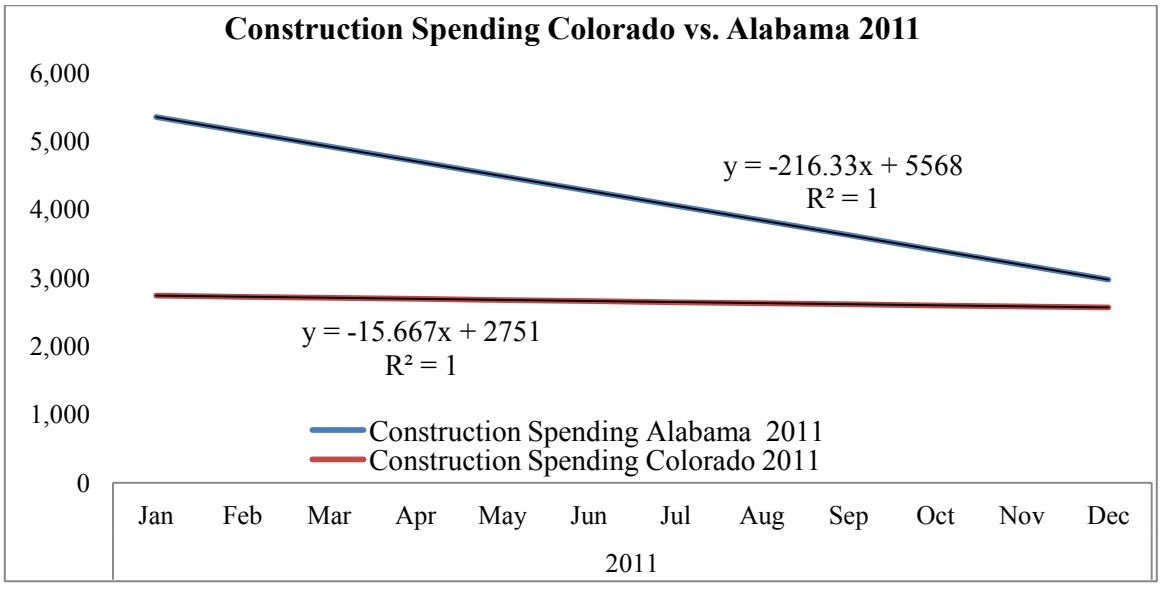

Figure 10: Construction Spending Alabama vs. Colorado 2011 Source: U.S Bureau of Economic Analysis

5.8 Summary of Findings

Utilizing the employment rates, construction GDP and Construction Spending; the data clearly shows that the economy in Colorado has been flat since July of 2010. The data shows (4) major points with Alabama's results below:

1. Colorado's employment rates grew by (3,400) workers in the two-year span.
    - Since July 2010 to June 2012, Alabama has lost a cumulative 14,900 construction jobs.
2. Employment rates: From July 2011(Passage of Law) to Jun 2012 have grown from (110.7) to (117.7). A (700) jobs increase.
    - After July 2011 Alabama employment rate dropped by (6,800) jobs to June 2012.
3. Construction as part of GDP showed significant change from 2010 to 2011. In 2010 decreased by -8.94% in 2011 it increased by 1%
    - Construction GDP in the two-year span decreased by almost 8.5%. In 2010 it decreased by -0.48% while in 2011 it decreased by -8.43%
4. Construction Spending in Colorado showed no significant change from 2010 to 2011. Decreased by only (-0.068%)
    - Construction Spending in Alabama decreased by 27.3% in 2010, in 2011 is decreased by 46.6%.

5.9 Alabama vs. Connecticut

The same methodology used to compare Alabama to Colorado, will be used to compare the baseline state Alabama to Connecticut. Data gathering, analysis, and results will be performed by comparing Alabama vs. Connecticut in three ways.

4. Part 1 testing for significant change in employment rates (1) one year pre and (1) one year after the passage of the legislation, Connecticut.
5. Test for significant change in Construction GDP for 2011 Alabama vs. Connecticut.
6. Test for significant change in Construction Spending for 2011 Alabama vs. Connecticut.

5.10 Connecticut Employment Rates: Data Gathering

The employment construction rate in Connecticut from July 2010 until December 2010 rose from 50,000 to 51,000 thousand. This shows that the construction employment rates in Connecticut grew in the second half of the year by a total of (1000) jobs (table 24). This growth is a very modest amount, yet the trend line shows plateau like stability in the last six (6) months of 2010.

When the two states are compared, it can be seen that although Connecticut employment rate had a menial or no real increase, it grew; compared to Alabama's rates which lost 4000 jobs, or 4.5% of its work force.

Table 24: Construction Employment Rates, Connecticut: July 2010 to December 2010. Source: U.S Department of Labor Statistics

Construction Employment Rates for Connecticut
July 2010 until December 2010 (Thousands)

Month	July	August	September	October	November	December
Rate	50	50.1	50.1	50.4	50.7	51

From January 2011 until December 2011 just like the previous year, shows the employment rates are fluctuating within the mean for the year, which are 50,700 thousand jobs. The standard deviation from the mean of 50,700 for the entire year is minimal at .810, which amounts to 810 jobs. The first half of the year shows a decrease in the overall in the employment rates. Although some months show an increase in hiring, by June the total difference from January is (-400) jobs (table 25). By plotting the data of the first half of the year, it shows a negative trend of hiring reduction, which the previous six (6) did not show. From July to December the employment again decreased by (1600) jobs (table 26).

The total job loss for the entire 2011 year was (2000) jobs. This reduction in employment rates is somewhat similar to Alabama; the difference lies in the percentage in job reduction. While Alabama saw a reduction in the employment rates of 4.5%, Connecticut saw a reduction of 3.9%.

Table 25: Construction Employment Rates, Connecticut: January 2011 to June 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Connecticut
January 2011 until June 2011 (Thousands)

Month	January	January	January	January	January	January
Rate	51.2	51.7	51.4	50.8	50.9	50.8

Table 26: Construction Employment Rates, Connecticut: July 2011 to December 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Connecticut
July 2011 until December 2011 (Thousands)

Month	July	August	September	October	November	December
Rate	51.6	50.5	49.7	51.3	49.4	49.2

The start of 2012 shows a growth in the construction employment rates. From December 2011 to January 2012, Connecticut increased it employment rates by (2800) jobs. The remaining months show variability in the rates, yet it still hovers close to the mean for the six (6) months that is 51,100.

Table 27: Construction Employment Rates, Connecticut: January 2012 to June 2012. Source: U.S Department of Labor Statistics

Construction Employment Rates for Connecticut
January 2012 until June 2012 (Thousands)

Month	January	February	March	April	May	June	July 2010
Rate	52.0	53.1	51.8	49.7	49.9	50.1	50.0

5.11 Connecticut Employment Rates: Analysis and Results

The data shows that in the two-year span Connecticut's construction employment rate has added (100) jobs, from (50.0) in July 2010 to (50.1) in June 2012. This total initial and final employment number verifies that Connecticut experienced neither growth nor decline in the specified time frame; which is in stark contrast to Alabama's construction employment rate which has consistently decreased.

The first step in the analysis was to determine if there has been a significant change in the employment rate in Connecticut from July 2010 to June 2012. The analysis shows that there has been not been a significant change in the employment rates one year pre legislation to one-year post legislation; a such the null hypothesis is accepted. Table 28 shows that overall the construction employment rates have had a little to no change since July of 2010.

Table 28: T-Test: Two-Sample Assuming Equal Variances: Employment Rates Connecticut: 1 Year Pre, 1 Year Post legislation

Null Hypothesis: There has been no change in the employment rate in Connecticut 1 year pre 1 year post

	1 year pre	*1 year post*
Mean	50.82727273	50.60909091
Variance	0.252181818	1.590909091
Observations	11	11
Pearson Correlation	0.586873984	
Hypothesized Mean Difference	0	
DF	10	
t Stat	0.690065559	
P(T<=t) two-tail	0.505851829	
t Critical two-tail	2.228138852	

Accept the null hypothesis. P value is larger than .05

5.12 Alabama vs. Connecticut Construction GDP: Data Gathering

Table 29: Construction GDP Alabama and Connecticut Per Year, Source: U.S Bureau of Economic Analysis

State	2009	2010	2011
Alabama	7,654	7,617	6,975
Connecticut	5,944	5,707	5,803

5.13 Alabama vs. Connecticut Construction GDP: Analysis and Results

The data shows, that the construction GDP in Colorado declined from (5,944) to (5,707) in 2010; and it grew from (5,707) to (5,803) in 2011 millions of current dollars (table 29 and figure 11).

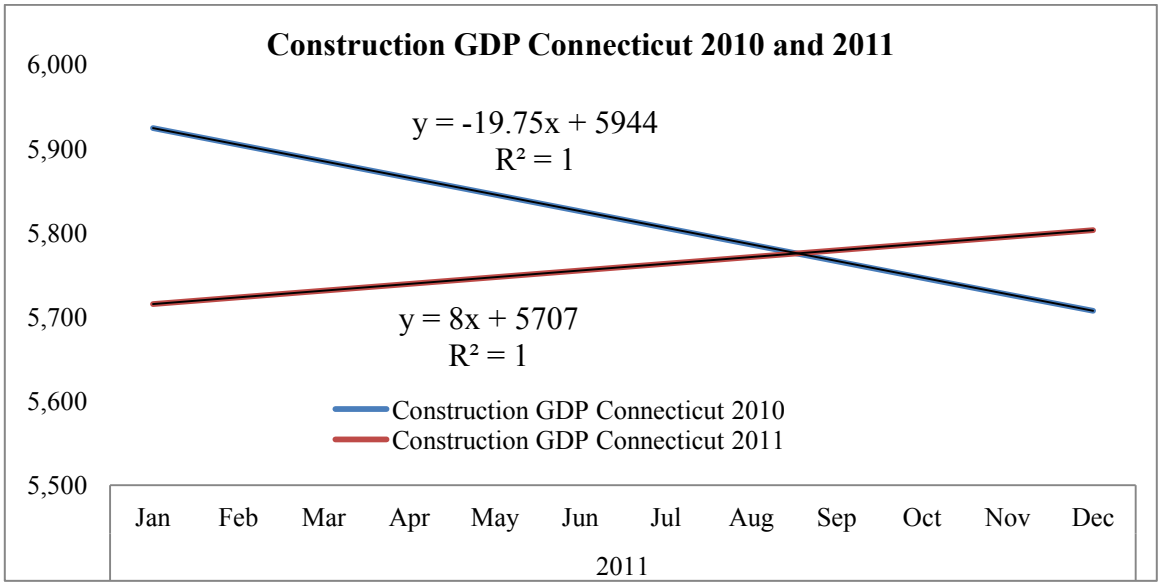

Figure 11: Construction GDP, Connecticut 2010 to 2011 Source: U.S Bureau of Economic Analysis

The T-test shows that there has been a significant change in the Construction GDP in Connecticut from 2010 to 2011. The Null hypothesis stated that there has been no significant change in Construction GDP in the two year span, since the T-Test analysis shows a P Value smaller than (0.05), then the Null Hypothesis is rejected (table 30). The slope intercept of the data for 2011 shows that it is trending upwards, with a slope intercept of (8.0); this shows that 2011 has proven a year of stability in construction GDP.

Table 30: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Connecticut 2010 and 2011

Null Hypothesis: There has been no change in the Construction GDP in Connecticut from 2010 to 2011

	2010	*2011*
Mean	5815.625	5759
Variance	5070.813	832
Observations	12	12
Hypothesized Mean Difference	0	
DF	15	
t Stat	2.553109	
P(T<=t) two-tail	0.022062	
t Critical two-tail	2.13145	

Reject Null Hypothesis: P Value is smaller than 0.05

Table 31, shows that there is a significant change in Construction GDP between Alabama and Connecticut for 2011, typically if the Construction GDP shows growth, so will employment rates. This premise is supported by the lack of growth in hiring experienced in 2011 in combination with the lack of growth in GDP for 2011.

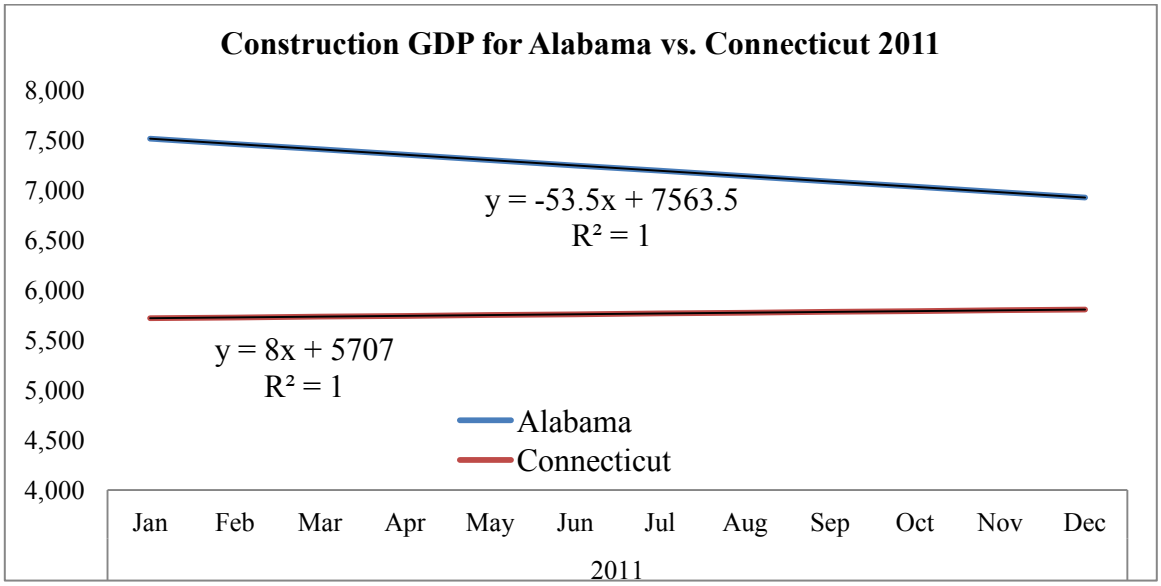

Figure 12: Construction GDP, Alabama vs. Connecticut 2011Source: U.S Bureau of Economic

Table 31: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Alabama vs. Connecticut 2011

Null Hypothesis: There has been no significant change in Construction GDP of Alabama when compared to Connecticut

	Alabama	*Connecticut*
Mean	7269.25	5759
Variance	37209.25	832
Observations	12	12
Hypothesized Mean Difference	0	
df	11	
t Stat	26.82329	
P(T<=t) two-tail	2.25E-11	
t Critical two-tail	2.200985	

Reject Null Hypothesis: P Value is smaller than 0.05

With the general premise that construction GDP is an indicative of how construction is behaving, it can be assessed that the economic climate for construction in Connecticut is stationary.

5.14 Alabama vs. Connecticut Construction Spending: Data Gathering

Table 32: Construction Spending Alabama and Connecticut Per Year, Source: U.S Census Bureau

State	**2009**	**2010**	**2011**
Alabama	10,289	9,369	9,462
Connecticut	2,725	1,515	1,752

5.15 Alabama vs. Connecticut Construction Spending: Analysis and Results

Connecticut saw a reduction in Construction Spending in 2010 from (2,725) to (1,515), and 2011 from (1,515) to (1,752). The T-tests showed a significant change in Construction Spending from 2010 to 2011(table 33).

Table 33: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Connecticut 2010 and 2011

Null Hypothesis: There has been no change in the Construction Spending in Connecticut from 2010 to 2011

	2010	*2011*
Mean	2069.583	1643.375
Variance	132175.7	5070.813
Observations	12	12
Hypothesized Mean Difference	0	
DF	12	
t Stat	3.985308	
P(T<=t) two-tail	0.001809	
t Critical two-tail	2.178813	

Reject Null Hypothesis: P Value is smaller than 0.05

This is confirmed by the slope intercept lines of the two data sets, 2010 (-100.83) and 2011 (19.75); and the P Value in the T-Tests. Although Construction Spending was trending downwards in 2010, the trend line flat lined upwards in 2011 (figure 13**).**

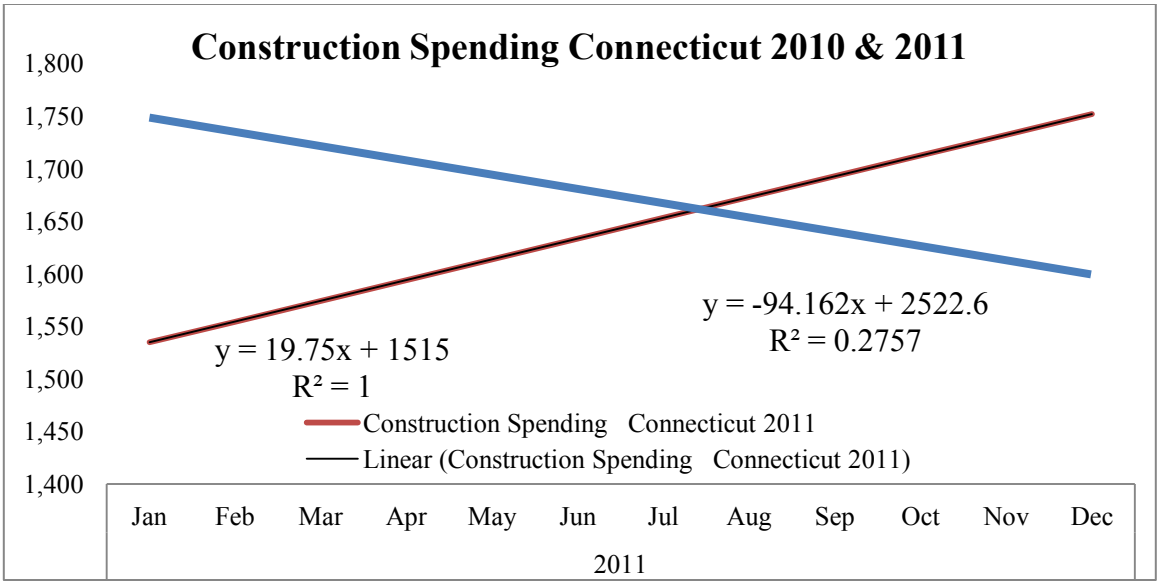

Figure 13: Construction Spending, Connecticut from 2010 to 2011 Source: U.S Bureau of Economic Analysis

The last test determines if there is a significant change in Construction spending of Alabama, when compared to Connecticut for 2011(table 34). The T-Test rejects the Null Hypothesis, and as such there is a significant change in Construction Spending when the two states are compared. Alabama's spending for 2011 has a slope intercept of (-216.33) while Connecticut has (19.75) (figure 14).

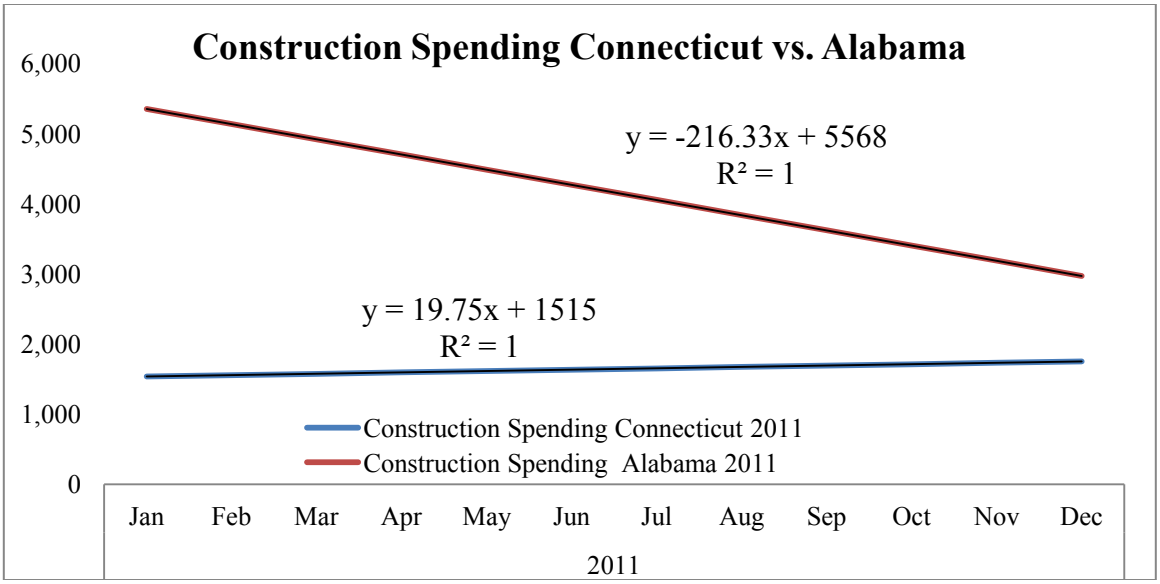

Figure 14: Construction Spending, Alabama vs. Connecticut 2011 Source: U.S Bureau of Economic Analysis

Table 34: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Alabama vs. Connecticut 2011

Null Hypothesis: There has been no significant change in Construction Spending of Alabama when compared to Connecticut

	Alabama	*Connecticut*
Mean	4161.833	1643.375
Variance	608401.4	5070.8125
Observations	12	12
Hypothesized Mean Difference	0	
DF	11	
t Stat	11.13853	
P(T<=t) two-tail	2.49E-7	
t Critical two-tail	2.200985	

Reject Null Hypothesis: P Value is smaller than 0.05

5.16 Summary of Findings

Utilizing the employment rates, construction GDP and Construction Spending; the data clearly shows that the economy in Connecticut has been flat since July of 2010. The data shows (4) major points:

1. Connecticut employment rates grew by (100) workers in the two year span. Accept Null Hypothesis, no significant change in Employment Rates.
    - Since July 2010 to June 2012, Alabama has lost a cumulative 14,900 construction jobs.
2. Employment rates: From July 2011(Passage of Law) to Jun 2012 have not had any significant changes, from (51.6) to (50.1).
    - After July 2011 Alabama employment rate dropped by (6,800) jobs to June 2012.
3. Connecticut employment rates grew by (100) workers in the two-year span.
    - Since July 2010 to June 2012, Alabama has lost a cumulative 14,900 construction jobs.
4. Construction as part of GDP significant change from 2010 to 2011. In 2010 it decreased by -3.99% decrease, in 2011 it increased 1.68%

- Construction GDP in the two year span decreased by almost 8.5%. In 2010 it decreased by -0.48% while in 2011 it decreased by -8.43%

5. Construction Spending had significant change from in 2010 a -44.04% decreased, while in 2011a 13.52% increase.
    - Construction Spending in Alabama decreased by 27.3% in 2010, in 2011 is decreased by 46.6%.

5.17 Alabama vs. Oregon

The same methodology used to compare Alabama the previous state, will be used to compare the baseline state Alabama to Oregon. Data gathering, analysis, and results will be performed by comparing Alabama vs. Oregon in three ways.

1. Part 1 testing for significant change in employment rates (1) one year pre and (1) one year after the passage of the legislation, Oregon.
2. Test for significant change in Construction GDP for 2011 Alabama vs. Oregon.
3. Test for significant change in Construction Spending for 2011 Alabama vs. Oregon.

5.18 Oregon Employment Rates: Data Gathering

The employment construction rate in Oregon from July 2010 until December 2010 declined from 67,400 to 66,600 thousand. This show that the construction employment rates in Oregon declined in the second half of the year by total of (800) jobs (table 35). This decline in the employment rate is a very modest amount, and by looking at the mean (67,300) and the standard deviation (.357) from the mean; a trend line of

stability can be seen. When the two states are compared, it can be seen that although Oregon's employment rate declined in the second part of the year by about 1.2%; Alabama's rates in comparison lost 4.5% of its work force.

Table 35: Construction Employment Rates, Oregon: July 2010 to December 2010. Source: U.S Department of Labor Statistics

Construction Employment Rates for Oregon July 2010 until December 2010 (Thousands)

Month	July	August	September	October	November	December
Rate	67.4	67.6	67.4	67.7	67.2	66.6

From January 2011 until December 2011 unlike the previous second half 2010, the employment rate grew by a total of (2700) jobs or 3.9% (table 36 and 37). The employment rate rose by almost (200+) jobs per month; the entire year showed consistent growth. When compared with Alabama, it can be seen that while Oregon is adding workers to its labor force, Alabama is decreasing them. Oregon gained (2700) for the 2011 year, Alabama lost (5500) jobs.

Table 36: Construction Employment Rates, Oregon: January 2011 to June 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Oregon January 2011 until June 2011 (Thousands)

Month	January	February	March	April	May	June
Rate	67.7	68.0	68.2	68.7	68.9	69.0

Table 37: Construction Employment Rates, Oregon: July 2011 to December 2011. Source: U.S Department of Labor Statistics

Construction Employment Rates for Oregon
July 2011 until December 2011 (Thousands)

Month	July	August	September	October	November	July
Rate	68.9	68.7	69.6	69.4	69.6	70.4

The first half of 2012 shows a fluctuation in the employment rates from the mean of (69,283). Oregon reduced it hiring from the start 2012 to June 2012 by total of (1500) jobs (table 38).

Table 38: Construction Employment Rates, Oregon: January 2012 to June 2012. Source: U.S Department of Labor Statistics

Construction Employment Rates for Oregon
January 2012 until June 2012 (Thousands)

Month	January	February	March	April	May	June	July 2010
Rate	70.3	68.5	68.4	70.4	69.3	**68.8**	**67.4**

5.19 Oregon Employment Rates: Analysis and Results

Table 39 shows that there is a significant change in the employment rate in Oregon from one (1) year pre legislation to one (1) post legislation. The data shows that there is a significant change, by looking at the total employment rate at the end of the time frames it shows that the data points are increasing.

The data shows that in the two-year span Oregon's construction employment rate has added (1400) jobs. This total initial and final employment number verifies that

Connecticut experienced growth in the specified time frame; which is in stark contrast to Alabama's construction employment rate that has consistently decreased. The data shows that since the passage of HB 56, Oregon has lost (100) jobs

Table 39 T-Test Two-Sample Assuming Unequal Variances: Employment Rates Oregon: 1 Year Pre, 1 Year Post legislation

Null Hypothesis: There has been no change in the employment rate in Oregon 1 year pre to 1 year post

	1 year pre	*1 year post*
Mean	67.86	69.4
Variance	0.526061	0.526288
Observations	12	12
Pearson Correlation	-0.28105	
Hypothesized Mean Difference	0	
DF	11	
t Stat	-4.45041	
P(T<=t) two-tail	0.000978	
t Critical two-tail	2.220098	

Reject the null hypothesis. P value is smaller than .05

5.20 Alabama vs. Oregon Construction GDP: Data Gathering

Table 40: Construction GDP Alabama and Oregon Per Year source, U.S Bureau of Economic Analysis

State	**2009**	**2010**	**2011**
Alabama	7,654	7,617	6,975
Oregon	6,409	6,021	6,372

5.21 Alabama vs. Oregon Construction GDP: Analysis and Results

The data shows, that the construction GDP in Oregon declined from (6,409) to (6,021) in 2010; and it grew from (6,021) to (6,372) in 2011 millions of current dollars (table 40 and figure 15).

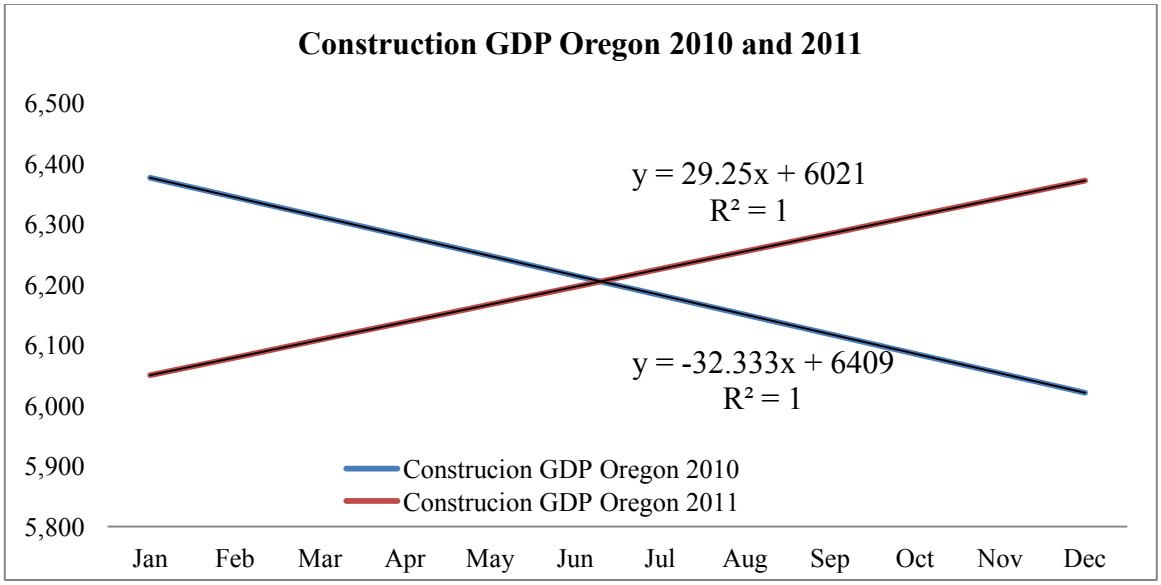

Figure 15: Construction GDP Oregon, 2010 to 2011 Source: U.S. Bureau of Economic Analysis

The T-test shows that there has not been a significant change in the Construction GDP in Oregon from 2010 to 2011. The Null hypothesis stated that there has been no significant change in Construction GDP in the two year span, since the T-Test analysis shows a P Value larger than (0.05), then the Null Hypothesis is accept. The test shows that any change has been no statistical change in construction GDP in the two year span (table 41).

Table 41: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Oregon 2010 and 2011

Null Hypothesis: There has been no change in the Construction GDP in Oregon from 2010 to 2011

	2010	*2011*
Mean	6198.833	6211.125
Variance	13590.78	11122.31
Observations	12	12
Hypothesized Mean Difference	0	
DF	22	
t Stat	-0.27086	
P(T<=t) two-tail	0.789027	
t Critical two-tail	2.073873	

Accept Null Hypothesis: P Value is larger than 0.05

By looking at the data for both states construction GDP in 2011, a T-Test between Alabama vs. Oregon the results show a significant difference (table 42).

Table 42: T-Test Two-Sample Assuming Unequal Variances: Construction GDP Alabama vs. Oregon 2011

Null Hypothesis: There has been no significant change in Construction GDP of Alabama when compared to Oregon

	Alabama	*Oregon*
Mean	7269.25	6211.125
Variance	37209.25	11122.3125
Observations	12	12
Hypothesized Mean Difference	0	
DF	17	
t Stat	16.67294	
P(T<=t) two-tail	5.72E-12	
t Critical two-tail	2.109816	

Reject Null Hypothesis: P Value is smaller than 0.05

Oregon's construction GDP grew in 2011, while Alabama's contracted significantly in 2011. This increase in Construction GDP, while small denotes growth in the construction economy in the state of Oregon (Figure 16).

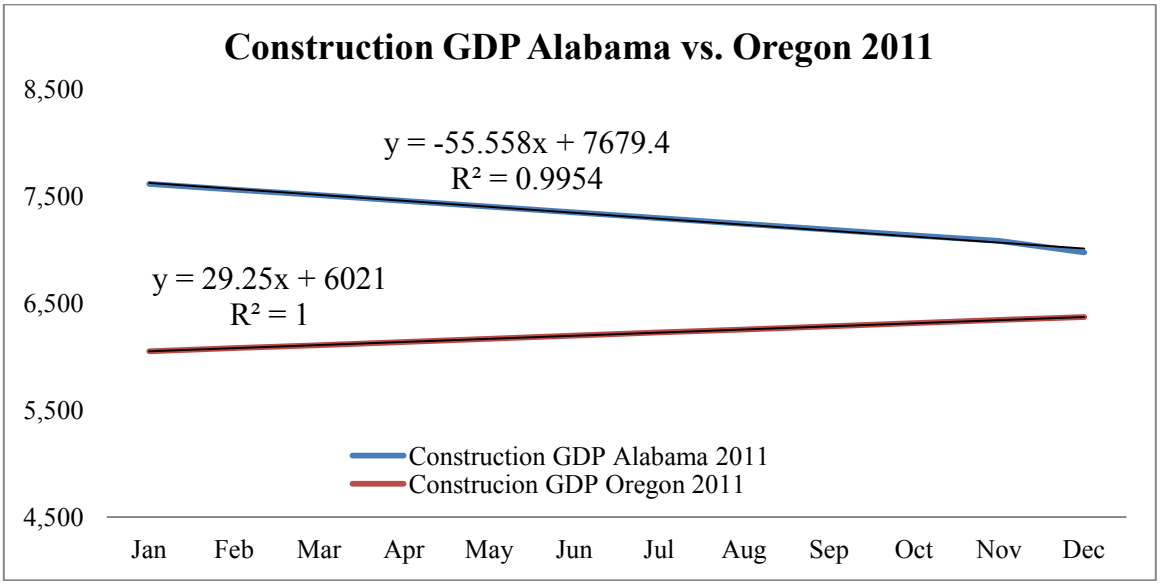

Figure 16: Construction GDP Alabama vs. Oregon 2011 Source: U.S. Bureau of Economic Analysis

It can be inferred that although the employment rates are flat and there is not a significant increase in the hiring of more workers; there still continues to be an availability of work. This is reflected by the increase in construction GDP for 2011, which is trending upwards. By the overall spectrum that construction GDP encompasses it can be assessed that the economic climate for construction in Oregon is healthy.

5.22 Alabama vs. Oregon Construction Spending: Data Gathering

Table 43: Construction Spending Alabama and Oregon Per Year Source: U.S Census Bureau

State	2009	2010	2011
Alabama	7,659	5,568	2,972
Oregon	1,938	1,349	4,426

5.23 Alabama vs. Oregon Construction Spending: Analysis and Results

Oregon saw a reduction in Construction Spending in 2010 from (1,938) to (1,349), while in 2011 Construction GDP grew from (1,349) to (4,426) (table 43). The T-tests showed a significant change in Construction Spending from 2010 to 2011.

Table 44: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Oregon 2010 and 2011

Null Hypothesis: There has been no change in the Construction Spending in Oregon from 2010 to 2011

	2010	*2011*
Mean	1618.95	3015.70
Variance	31319.25	854743.59
Observations	12	12
Pooled Variance	443031.42	
Hypothesized Mean Difference	0	
DF	22	
t Stat	-5.140	
P(T<=t) two-tail	3.75E-5	
t Critical two-tail	2.073873068	

Reject Null Hypothesis: P Value is smaller than 0.05

This demonstrates that there is significant change in Oregon Construction Spending for the two year span. This is confirmed by the slope intercept lines of the two data sets, 2010 (-49.083) and 2011 (256.42); and the P Value in the T-Tests (See table 44). Although Construction Spending was trending downwards in 2010, the trend line exploded upwards in 2011 (See figure 17).

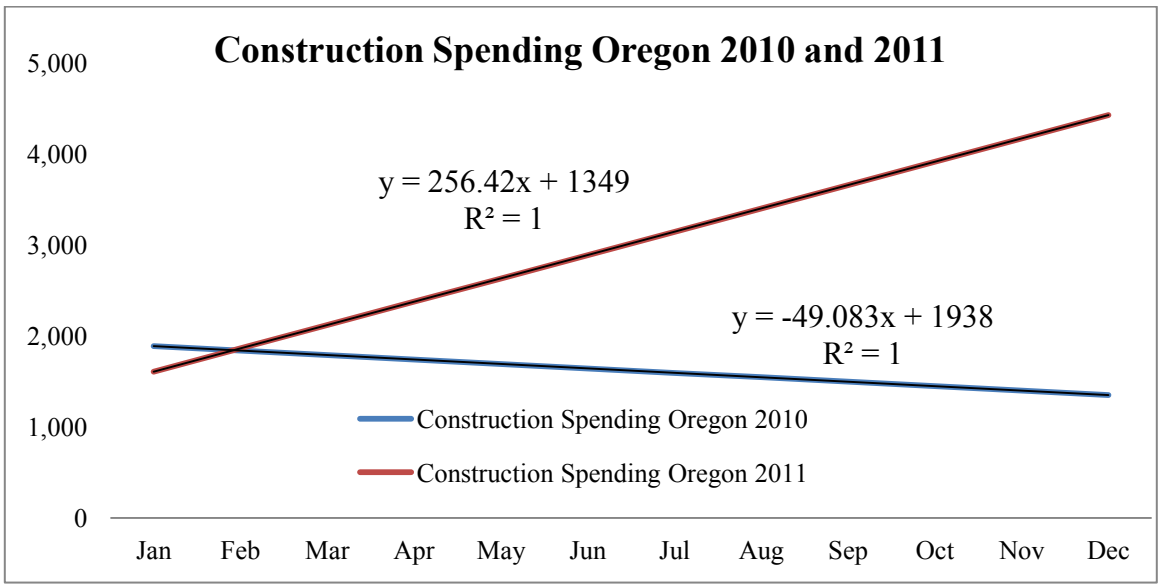

Figure 17: Construction Spending Oregon, 2010 to 2011 Source: U.S. Census Bureau

The last test determines if there is a significant change in Construction spending of Alabama, when compared to Oregon. The T-Test rejects the Null Hypothesis, and as such there is a significant change in Construction Spending when the two states are compared (table 45). Alabama's spending has a slope intercept of (-216.33) while Oregon has (256.42) (figure 18).

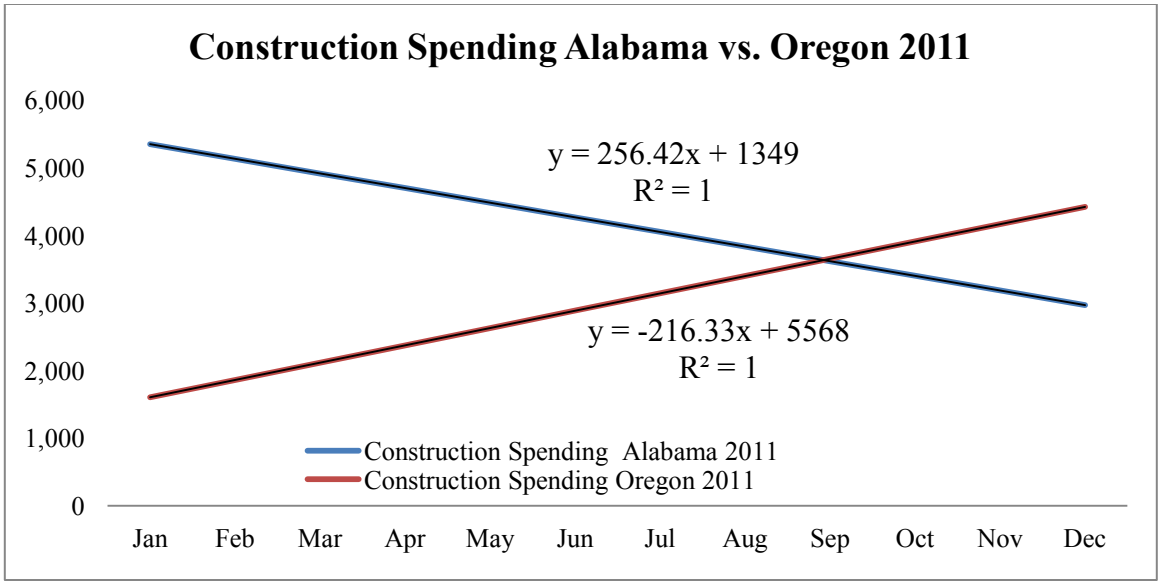

Figure 18: Construction Spending Alabama vs. Oregon 2011 Source: U.S. Census Bureau

Table 45: T-Test Two-Sample Assuming Unequal Variances: Construction Spending Alabama vs. Oregon 2011

Null Hypothesis: There has been no significant change in Construction Spending of Alabama when compared to Oregon

	Alabama	*Oregon*
Mean	4161.833	3015.708333
Variance	608401.4	854743.5903
Observations	12	12
Hypothesized Mean Difference	0	
DF	21	
t Stat	3.282305	
P(T<=t) two-tail	0.003554	
t Critical two-tail	2.079614	

Reject Null Hypothesis: P Value is smaller than 0.05

5.24 Summary of Findings

Utilizing the employment rates, construction GDP and Construction Spending; the data clearly shows that the economy in Oregon has been booming since 2011 in the private sector. The data shows (4) major points:

1. Oregon's employment rates grew by (1,400) workers in the two-year span.
    - Since July 2010 to June 2012, Alabama has lost a cumulative 14,900 construction jobs.
2. Employment rates: From July 2011(Passage of Law) to Jun 2012 have not any had a significant change, from (68.9) to (68.8).
    - After July 2011 Alabama employment rate dropped by (6,800) jobs to June 2012.
3. Construction as part of GDP showed no significant change in the two year span. In 2010 it decreased by -6.05% decrease, in 2011 it increased 5.83%
    - Construction GDP in the two-year span decreased by almost 8.5%. In 2010 it decreased by -0.48% while in 2011 it decreased by -8.43%
6. Construction Spending showed a significant change in 2010 and 2011. In 2010 a -30.39% decrease in which the slope of the line was (-49.083) while in 2011 the slope was (256.42) an explosion upwards. From (1,349) in 2010 to (4,426), a 228.09% increase.

- Construction Spending in Alabama decreased by 27.3% in 2010, in 2011 is decreased by 46.6%.

6. SURVEY AND CONCLUSIONS

6.1 Survey and Interview

Data gained from the survey and interviews will help understand the data patterns in the quantitative research, as well as the meanings and relationships discovered in the data. It is important to understand that this hybrid methodology of research is proposed to further explain the relationships in the data. The sampling of the survey will focus on sub-contractors. Sub-contractors are picked, since very few General Contractors self-perform. The survey will target those companies in the construction field that are self-performers. The trades targeted are: concrete, masonry, drywall, painting, flooring, and roofing.

Survey: The survey will be administered in the form of a phone interview; the semi-structured interviews with the construction companies will be very similar to the survey shown below:

6.2 Survey: Legislation House Bill 56

Filter Questions: Any response of NO on the following questions will eliminate subjects from project survey.

1. Are you in charge of hiring and firing at your company or current employer?

   Yes No

2. Have you been in this position since January 2010?

   Yes No

3. Are you aware of the contents of House Bill 56?

   Yes No

1. Has House Bill 56 had an overall positive effect on construction?

Strongly Positive	Positive	Neutral	Negative	Strongly Negative

2. How has Legislation House Bill 56 impacted your labor force?

Greatly Increased	Increased	No Impact	Reduced	Greatly Reduced

3. House Bill 56 has impacted my ability to procure work by?

Greatly Increasing It	Increasing It	No Impact	Decreased It	Greatly Decreased It

Do you agree or disagree with the following statements:

4. Since the announcement of the law I have had difficulties hiring general laborers?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. Since the announcement of the law it I have had difficulties hiring foremen or supervisory staff?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6.3 Results

The following tables numerically account for all responses, in the administered survey. The tables are arranged, in two separate sections:

1. Compiled responses among all trades
2. Reponses by trade (Appendix D)

When administering the survey for efficiency the questions were given a numerical response. For example, if a questions was answered as strongly negative, it would receive a (-2) if neutral it would receive a (0).

6.3.1 How Data Was Collected

All data was gathered from the Alabama.Gov website. The type of sub-contractor trade to be research was input into the registry of registered contractors with the state of Alabama.

The following numbers correspond to each individual trade:

Concrete:

1. Number of companies on the Alabama. Gov. website: 256
2. The number of companies contacted: 15
3. The number of respondents who did not pass the filter: 8

Masonry:

1. Number of companies on the Alabama. Gov. website: 113
2. The number of companies contacted: 13
3. The number of respondents who did not pass the filter: 2

Framing:

1. Number of companies on the Alabama. Gov. website: 73
2. The number of companies contacted: 16
3. The number of respondents who did not pass the filter: 0

Drywall:

1. Number of companies on the Alabama. Gov. website: 123
2. The number of companies contacted: 18
3. The number of respondents who did not pass the filter: 6

Flooring:

1. Number of companies on the Alabama. Gov. website: 97
2. The number of companies contacted: 31
3. The number of respondents who did not pass the filter: 9

Painting:

1. Number of companies on the Alabama. Gov. website: 136
2. The number of companies contacted: 11
3. The number of respondents who did not pass the filter: 1

6.4 Summary

The approach taken to summarize the findings, will allocate the data into the previously determined segments of analysis; which defined as the chosen sub-contractor trades. See Appendix D, for full table results.

Concrete: The data shows that by a majority the sample indicates that HB 56 has had a negative impact on the Construction Industry in Alabama. The large majority of

sub-contractors in the concrete trade have not had any decrease in their perspective labor force, yet half of the sample agrees that the availability of laborers has greatly decreased since the passage of HB 56. Sub-Contractors also state that the law has had no impact on their availability to procure work, and that part of the business has had no impact/change, as well as the hiring of supervisory staff which has not shown any impact/neutrality since HB 56 was passed. A contractor's ability to procure work is defined by the contractor's ability to perform that work it is contracted for. If a contractor defines that HB 56 has a negative impact overall, a negative impact on the labor force, yet the procurement of work has not changed; this is an inconsistent statement. It can be assumed that the contractors who stated the negative aspects of HB 56, probably hired, or dealt with unauthorized immigrants. This coincides with the premise that all participants are not being truthful in their answers. By stating that HB 56 has had an impact on their respective labor force, it's paramount to publically stating "I hire unauthorized immigrants". The survey was designed to clarify these conflicting responses.

Masonry: The data points that masonry is the trade that was least affected by the passage of the law. The majority of responders answered either neutral or no impact when administered the survey. The survey revealed that masonry can be divided into two labor forces:

1. Mason
2. Laborer (Makes mortar, gets block/brick, cuts masonry, etc.)

Hence most sub-contractors don't solely rely on laborers to perform work, but more skilled craftsmen. Masonry perhaps is by far the trade that uses the most skilled labor of the six (6) selected. The literature review and the comments of the respondents show that most unauthorized immigrants consist of low skilled to no skill workers. Although the data collected shows that half of sub-contractors feel that their ability to procure work has diminished, participant stated that this is not necessarily due to HB 56, but more to a lack of available work. With that being said the data does not clearly lean to a negative or positive effect on all the questioned aspects; it is defined by a no impact to neutral overall encompassing response.

Framing: This trade by the results has been most affected by HB 56. Half of the sampled sub-contractors state that the law has had a strongly negative effect on the construction industry, as well as strong agreement that there is a difficulty hiring laborers since the passage of the law. While at the same time stating that their ability to procure work has neither decreased nor changed. This in itself is a contradictory statement, the premise that while law has had a negative impact on the construction industry and there is a lack of laborers, while not affecting contractors ability to procure work are clashing statements. To be able to understand the dynamics being played in by these three questions; we must look at the responses to whether or not contractors have had difficulties hiring laborers. Most framing sub-contractors state that laborers are short in supply and availability, hence they cannot bid on work that requires more than their available labor force. Some of the comments chronicled by the participants' of the survey corroborate the premise that they are weary of bidding work that they cannot

handle with their own labor force. This ultimately affects a contractor's ability to procure work. Three (3) respondents explained why framing was the trade most affected by HB 56. The following quote is taken from one of the three responses, "since we don't require highly skilled laborers, we require numbers to perform our work, and we can't find people to work". (New York Times, 2012)

The following three (3) trades depict a variety of responses that do not reflect either a negative or positive position as it pertains to the effects of HB 56.

Drywall: Due to the fluctuations shown by the data sampled, the interpretation of the data is defined by two of the five questions asked in the survey. The survey tries to encompass all the aspects that HB 56 has impacted. To the initial question that asks if HB has had a positive impact on the labor force, there are no majority responses on either side. That shows that for the drywall sub-contractor, HB 56 has proven to vary on both sides of the spectrum. The question then arises, what are the areas that HB 56 has impacted, if the overall impact is determined to be null. Half of respondents agree that there is a shortage of labor to be hired. This by their responses does not seem to affect either the procurement of work, or their own labor forces. Drywall does not seem to be a trade that has been heavily affected at the present moment by HB 56. One (1) respondent did provide a reasonable answer to the questions posed. "right now since work is slow, our current labor force can handle the amount of work we have, if for some reason work would pick up now, we would be in trouble". (Anonymous)

Flooring: Just as drywall, flooring does not lean to either side of the spectrum on the passage of the law. It does mostly lean towards a neutral impact of the law; while

skew on the negative side, on all questions across the board. Aside from the consensus by half of the participants that the labor pool has decreased, the trend is at the neutral or no impact. Flooring just by the data results is a trade that has not experienced a decrease in its procurement of work. By those standards, HB 56 has not affected the flooring industry significantly other than the labor force numbers.

Painting: Painting is not a trade that generally requires many workers, or highly skilled laborers. The data supports this premise. The results depict that contractors either see HB 56 as being either negative or having no impact/neutral. Contractors have not noticed any decrease in their existing labor force, by a vast majority; while half agree that since the passage of the law the majority conceded that there have been difficulties hiring laborers. Across the board contractors agree that there has been no impact on the hiring of supervisory staff, this coincides with the premise that painting contractors do not typically hire highly skilled workers. The data once again points to what has shown true on all trades that were administered the survey, which is HB 56 has had a negative impact on construction. Some trades more than others, but across the boards all trades have suffered from HB 56.

Table 46: Tabulated Results of Survey, Garcia 2013

Tabulated Survey Results					
All Trades					
# 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
Total	24	3	18	7	8
# 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
Total	12	4	37	5	2
# 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
Total	10	12	29	8	1
# 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Total	31	7	15	4	3
# 5	Strongly Agree	Agree	No Impact	Disagree	Strongly Disagree
Total	4	2	51	3	0

6.5 Histograms per Trade

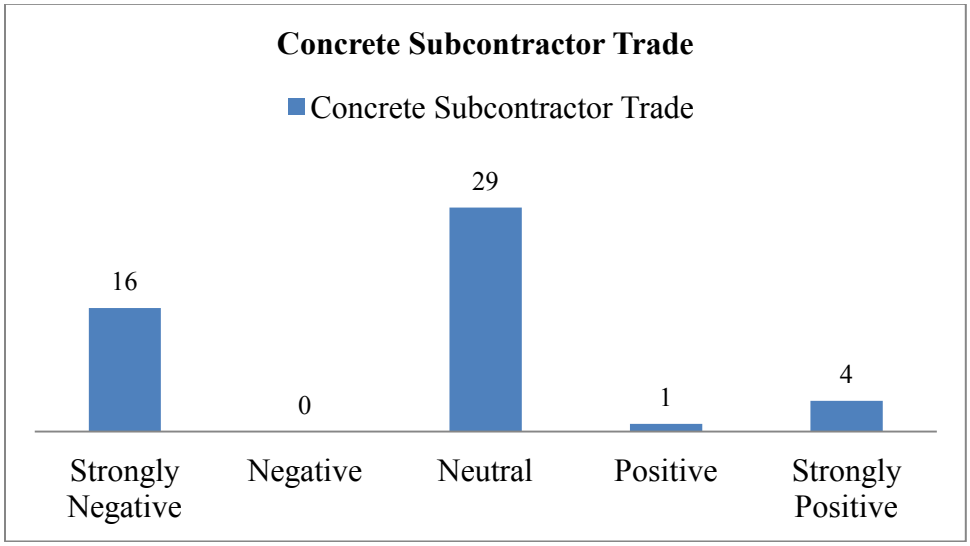

Figure 19: Tabulated Results Concrete Subcontractor, Garcia 2013

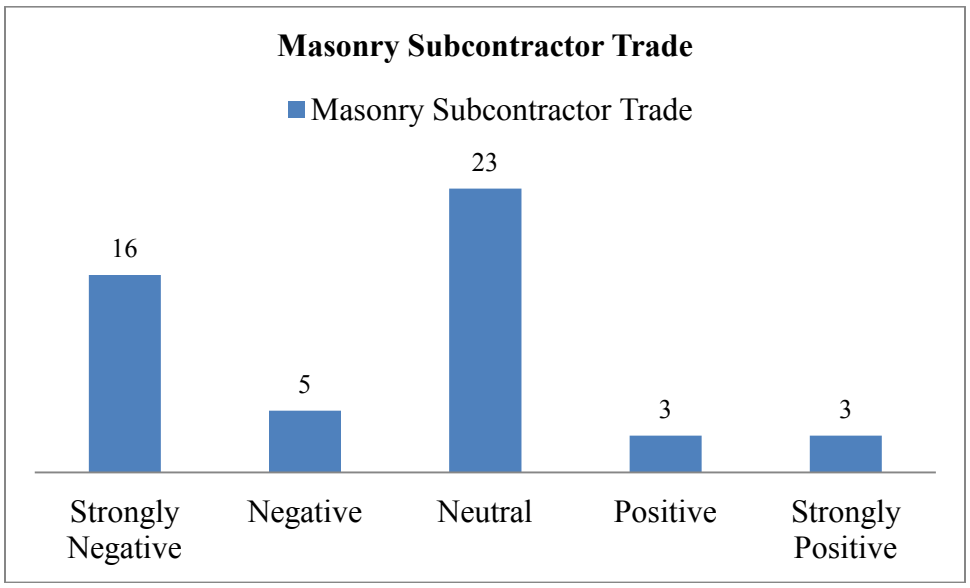

Figure 20: Tabulated Results Masonry Subcontractor, Garcia 2013

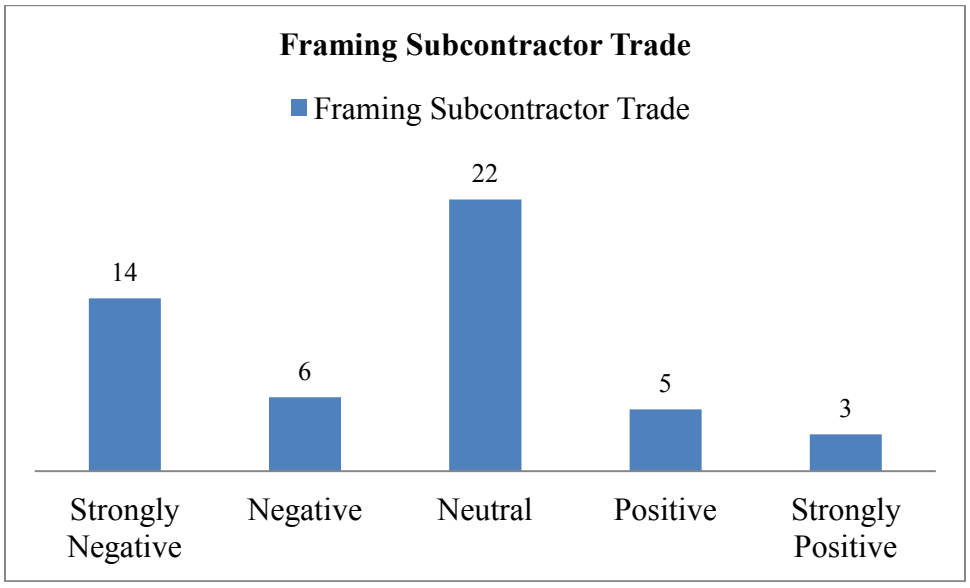

Figure 21: Tabulated Results Framing Subcontractor, Garcia 2013

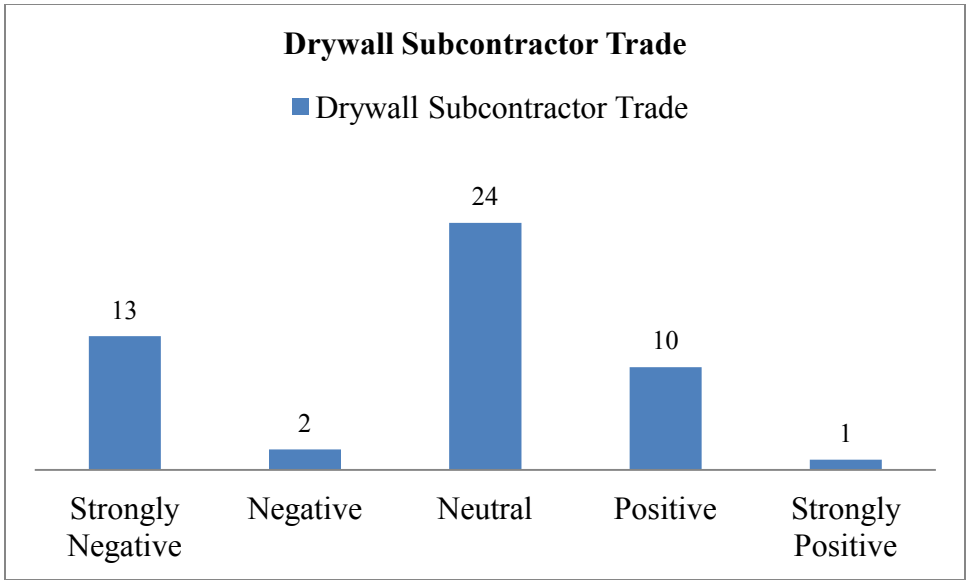

Figure 22: Tabulated Results Drywall Subcontractor, Garcia 2013

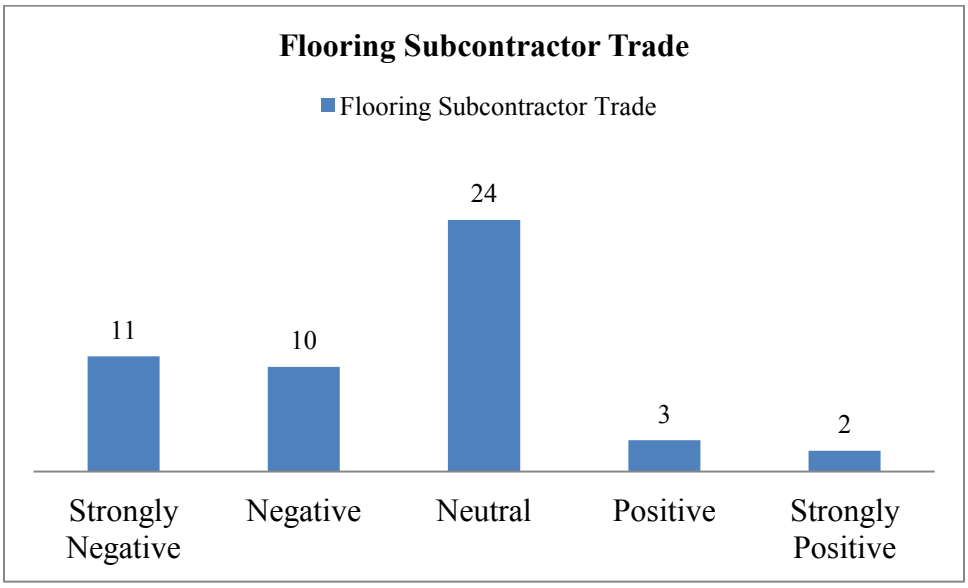

Figure 23: Tabulated Results Flooring Subcontractor, Garcia 2013

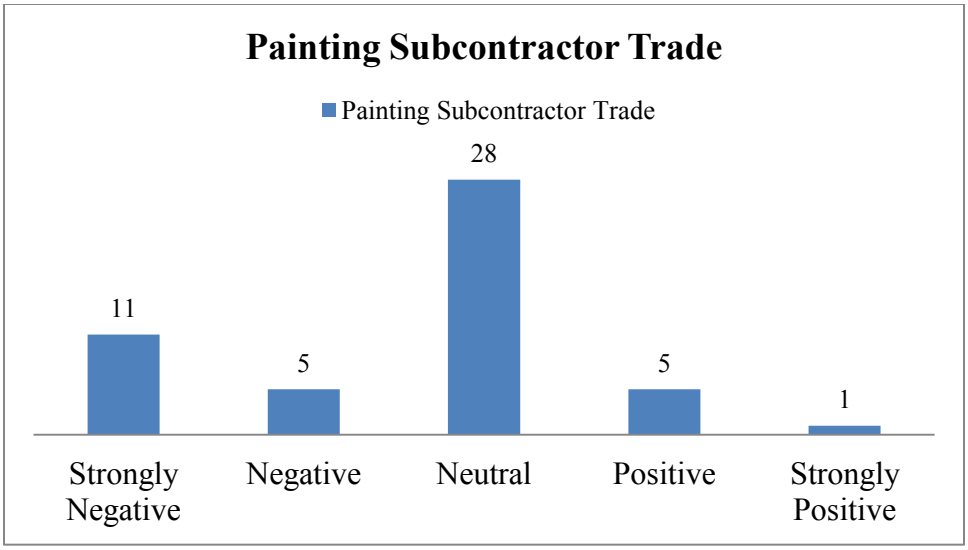

Figure 24: Tabulated Results Painting Subcontractor, Garcia 2013

The above histograms clearly show that overall sub-contractors agree by a majority that HB 56 has had a negative impact on construction. While not all trades have been affected equally, on all trades the majority of responses are based on the negative side of the histograms. The following table shows that amount of responses on the negative side of the histogram vs. the total amount of responses on the positive side of the histograms, per trade. Overwhelmingly the negative responses exceed by almost 225% the positive responses to HB 56. As seen on table 47.

Table 47: Cumulative Responses Positive and Negative Spectrum per Trade, Garcia 2013**.**

Negative Cumulative Responses	Positive Cumulative Responses
16	5
16	6
20	8
15	11
21	5
15	6
Total: 103	Total : 41

6.6 Summary Analysis

The initial part of the study focused on the impact HB 56 has had on three (3) aspects of the construction industry in Alabama, employment rates, construction GDP, and construction spending. That initial part of the study has shown that Alabama has had significant changes in all three of these facets. Although the questions asked in the survey were not designed to uncover monetary changes caused by HB 56, which in turn could be grouped together with Construction GDP, and Construction Spending; the survey did create a platform for analysis of the responses vs. the employment rate.

6.7 Content Analysis

Content analysis was done on the responses chronicled below in order to summarize the content uncovered into objective evaluations. The initial stage of content analysis separated the most used words; or root words, their secondary words, and tertiary words (see appendix E for full table). The idea in separating the statements into

three parts was to “tree” each statement, first the root word, then the trunk, and finally the branches. The key words: (figure 25)

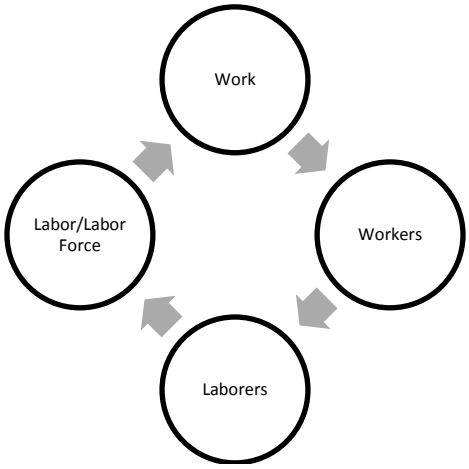

Figure 25: Survey Content Analysis: Root Words

The words in figure 25 where used 70% of the time, in a negative connotation. The secondary most common secondary word is “shortage” and “can’t find”. These two words were used 33% of the time, the words were coupled as “shortage” and “can’t find” are determined to be the same. While the words “can’t bid”, “not bid”, “negative’, ‘hit hardest” came up 26%.

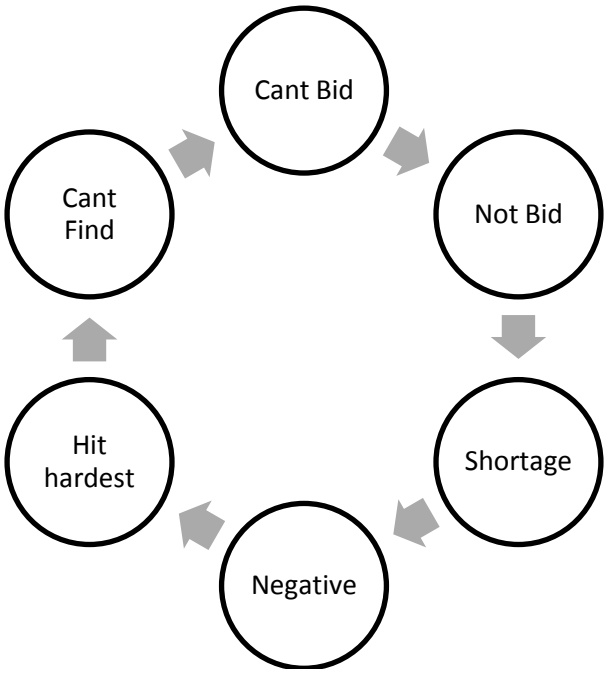

Figure 26: Survey Content Analysis: Secondary + Tertiary Words

In total 70% of the words that deal with labor, are connected with negative connotations. This shows that a majority of surveyed participants deem HB 56 as a negatively impacting law. A final content analysis revealed that only 6% of the comments chronicled, depicted HB 56 in a positive manner, and overwhelming 94% of respondents depicted HB 56 as a negative law.

6.7.1 Comments

- "The shortage of workers, has caused me not to bid on jobs that I normally bid on"
- "Construction crews are not traveling as far as they used to."
- "Some legal immigrants are leaving Alabama, just for fear of prosecution."
- "I have masons ready to work, but I can't find laborers (mud, grout, block cutting. Etc.) available, so I can't bid on big work."
- "Wrapping labor force, has just plummeted"
- "Multi framing jobs are being hit the hardest."
- "The law is positive for those who were doing legal work to start with, those with illegal workers are struggling trying to bid."
- "We use E-Verify, so we don't hire illegals."
- "For the past 5 years, the work is slow, but the last year has been very bad."
- "Too many experienced workers not enough laborers. Too many hands on the cookie jar."
- "Hard to find good workers to help, and the Mexicans work hard. I can't get American workers to work how they do."
- "The states that are bordering Alabama like Georgia, who use E-Verify don't have work."
- "The south west and north east parts of Alabama are having a harder time getting work."
- "HB 56 has created a negative labor pool."

- "My work in Fort Bend had decreased by ¼ in the past year. And when I do my workers don't want to go near government facilities."

6.8 Final Conclusion

The results of the qualitative data, depicts what is reinforced by the quantitative data. HB 56 has had a negative impact on construction. The drop in employment rates coincides with the sub-contractor consensus that there is a shortage of available laborers in the marketplace. The reduction in Construction GDP and Construction Spending, shows that the amount of work available is decreasing, which is a contradictory to the premise that the majority of sub-contractors have not experienced any change in their ability to procure work. The question becomes simplistic in nature, if all indexes in the construction economy are recessing, if there are no workers available to work; how can a sub-contractors capacity to get work not be affected. As chronicled above, due to the nature of the questioning, as a researcher I must conclude that the sub-contractors that I spoke with have or have hired unauthorized immigrants; and do not want for fear of backlash or perception, to be thought of as employers who do so. The last part of the qualitative research compiles comments given to me by the sub-contractors I spoke with. Due to IRB (Internal Review Board) protocol, I cannot name or link the comments back to the participants who said them. They will be labeled anonymous.

6.9 Researchers Conclusion

The driving force behind this thesis was simply to discover the affects that anti-unauthorized immigration laws have had on the construction industry. Having worked for a sub-contractor in Texas, I was not under any illusion on the dependency of the

construction industry on unauthorized immigrant workers. Before I began researching employment rates, I asked myself, what would happen if all the unauthorized workers from my company left? With the United States unemployment rate being in the 8% range I thought we would have no problem filling these positions, with American workers eager to earn a paycheck and have steady employment. It almost seemed anti-American to not support a bill like HB 56, knowing the high number of Americans out of work or under employed.

Yet as the quantitative research was completed and the qualitative survey was underway, I began to question my ideas. When performing the literature review, I uncovered that a vast majority of anti-unauthorized immigration supporters, have sited that illegal immigrants take the jobs of legal workers. That is, if unauthorized immigrants vacated those positions, legal workers could in turn fill those positions. The fact that after HB 56, Alabama's' employment rates continued to regress consistently, while not adding jobs in the year following the legislation, raised a red flag. If the premise is defined that as soon as positions become available, legal workers will take them; that there smooth transition from unauthorized workers being filled by legal workers, was just simply not true. The survey comments reinforced what the employment rates showed. The labor pool has decreased so much that there are no workers to hire; some respondents stated that they were not bidding on work that they could possibly get. The difference Construction GDP and Construction Spending witnessed in 2011when compared to 2010 was mind boggling. The research ultimately made me ask myself several questions; is our idea to eliminate unauthorized

immigration, going to cause the same effects to other states as it did Alabama? Have other states that enacted similar laws suffered the same as Alabama? To what extent are we reliant on unauthorized workers here in the United States? Can the legal work force population keep up with the current demands of the construction industry? I was told once that good research solves problems, but also raises many more. I hope that the research I have performed shows the impact of HB 56 on the construction industry, and that future research and researchers take on this vital topic which has propagated intense debates within our populace and politicians.

REFERENCES

ACLU. (2013, June 13). Analysis of HB 56, "Alabama taxpayer and citizen protection act". Retrieved from: http://www.aclu.org/immigrants-rights/analysis-hb-56-alabama-taxpayer-and-citizen-protection-act

Addy, S. (2012). A cost-benefit analysis of the new Alabama immigration law. Manuscript submitted for publication, Center for Business and Economic Research, University of Alabama, Tuscaloosa, AL, Retrieved from http://cber.cba.ua.edu/New%20AL%20Immigration%20Law%20%20Costs%20and%20Benefits.pdf?&lang=en_us&output=json

Bolen, M. (2007, June 01). Self-Performing has a direct project impact. Retrieved from http://www.mccarthy.com/news/2007/06/01/self-performing/

Bureau of Labor Statistics: (A), (2010). BLS Statistics on Unemployment. Retrieved from website: http://www.bls.gov/bls/unemployment.htm

Bureau of Labor Statistics: (B), (2010). BLS Statistics on Employment. Retrieved from website: http://www.bls.gov/bls/unemployment.htm

Center for American Progress Team. (2012, July). The facts on immigration today. Retrieved from http://www.americanprogress.org/wp-content/uploads/issues/2012/07/pdf/immigration_facts_final.pdf

Fetzer, Joel S. (2006). "Why did House members vote for H.R.4437?." *International Migration Review*, Vol. 40: 698-706.

Giovanni , F. (2011). Discussion paper series. ″What Drives U.S. Immigration Policy? Evidence from Congressional Roll Call Votes", 8299, 30. Retrieved from: www.cepr.org/pubs/dps/DP8299.asp

Golden, S. and Skibniewski, M. (2010). ”Immigration and Construction: Analysis of the Impact of Immigration on Construction Project Costs.” *J. Manage. Eng*, 26(4), 189–195.

Anti Essays. Immigration. Retrieved May 22, 2013, from: http://www.antiessays.com/free-essays/76298.html

Johnson & Hill. (2012). "Illegal immigration". *Public Policy Institute of California.* Retrieved from http://www.ppic.org/content/pubs/atissue/AI_711HJAI.pdf

Martin & Midgley, P. E. (2003). "Immigration: Shaping & reshaping America". *Population Reference Bureau*, Vol. 58: (2).

Martin & Ruark, J. E. (2010). "The Fiscal Burden of Illegal Immigration On". *Federation for American Immigration Reform*. Retrieved from: http://www.americanprogress.org/wp content/uploads/issues/2012/07/pdf/immigration_facts_final.pdf

Mataloni, L. (2012). "National Income and Product Accounts: Gross Domestic Product, 1st Quarter". U.S. Bureau of Economic Analysis, Washington, D.C

National Immigration Forum. (2012). Runaway costs for immigration detention, "The Math of Immigration Detention: Practical Solutions for Immigrants and for America". Washington, D.C.

New York Times. (2012, April 12). Anti-illegal immigration laws in states. *New York Times*. Retrieved from http://www.nytimes.com/interactive/2012/04/22/us/anti-illegal-immigration-laws-in-states.html

Passel & Capps & Fix, J. R. M. (2004). "Undocumented Immigrants: Facts and Figures". Washington, DC: Urban Institute: Research of Record.

Passel & Cohn. (2010). "Unauthorized immigrant population". Retrieved from http://pewhispanic.org/files/reports/133.pdf

Mirriam-Webster. (2011). *Subcontractor*. Retrieved from http://www.merriam-webster.com/dictionary/subcontractor

The Robinson Rojas Archive (2012) "Gross Domestic Product". Retrieved from http://www.rrojasdatabank.info/dev0040.htm?&lang=en_us&output=json

United States Census Bureau (2013). "Construction Spending". Retrieved from: http://www.census.gov/construction/c30/definitions.html

Wassem, R. W. (2012). "Unauthorized Aliens Residing in the United States: Estimates since 1986." Congressional Research Service, Library of Congress. (RL33874). Washington, D.C.

APPENDIX A

Share of Illegal Immigration

The data provided by the Pew Hispanic Research center shows the percentage in the labor force that unauthorized immigrants represent.

Table 48: Share of Unauthorized Immigrants in the Labor Force Per State. Source: Pew Hispanic Center

Number and Share for Labor Force of Unauthorized Immigrants per State, for 2010 Labor Force

	Total (Thousands)	U.I.E	Share
U.S Total	154,936	8,000	5.20%
Alabama	*2,263*	*95*	*4.2%*
Alaska	358	<10	<1.5%
Arizona	3,116	230	7.4%
Arkansas	1,305	40	3.0%
California	18,811	1,850	9.7%
Colorado	2,664	120	4.6%
Connecticut	1,853	85	4.5%
Delaware	434	20	4.5%
District of Columbia	339	20	6.1%
Florida	9,064	600	6.6%
Georgia	4,777	325	7.0%
Hawaii	612	30	4.6%
Idaho	768	20	2.8%
Illinois	6,719	375	5.6%
Indiana	3,168	70	2.3%
Iowa	1,741	55	3.2%
Kansas	1,417	45	3.3%
Kentucky	2,081	55	2.6%
Louisiana	2,068	40	2.0%
Maine	678	<10	<1%
Maryland	3,100	190	6.2%
Massachusetts	3,509	130	3.7%
Michigan	4,886	100	2.0%
Minnesota	2,947	60	2.1%
Mississippi	1,223	35	2.9%
Missouri	3,057	40	1.3%

Montana	513	<10	<1%
Nebraska	1,006	30	3.0%
Nevada	1,367	140	10.0%
New Hampshire	754	10	1.6%
New Jersey	4,679	400	8.6%
New Mexico	909	50	5.6%
New York	9,742	450	4.7%
North Carolina	4,658	250	5.4%
North Dakota	375	<10	<0.5%
Ohio	5,922	70	1.2%
Oklahoma	1,798	55	3.0%
Oregon	2,024	110	5.3%
Pennsylvania	6,264	110	1.7%
Rhode Island	570	20	3.7%
South Carolina	2,171	45	2.1%
South Dakota	443	<10	<1.5%
Tennessee	3,020	95	3.1%
Texas	12,261	1,100	9.0%
Utah	1,359	75	5.4%
Vermont	360	<10	<0.5%
Virginia	4,082	160	3.9%
Washington	3,623	190	5.1%
West Virginia	769	<10	<0.5%
Wisconsin	3,093	65	2.0%
Wyoming	292	<10	<1.5%

APPENDIX B

Construction GDP:

The data shown by the Bureau of Economic Analysis shows the value added in production by the labor and capital located in a state in the construction industry.

Table 49: Gross Domestic Product by State Source: U.S Department of Commerce: Bureau of Economic Analysis 2009 & 2010

Gross Domestic Product by State (millions of current dollars) in: Construction

Area	GDP Current Millions 2009	Area	GDP Current Millions 2009
Alabama	7,654	Montana	1,889
Alaska	1,889	Nebraska	3,620
Arizona	12,985	Nevada	8,664
Arkansas	4,190	New Hampshire	1,801
California	62,083	New Jersey	15,355
Colorado	10,289	New Mexico	3,711
Connecticut	5,944	New York	34,894
Delaware	1,635	North Carolina	15,067
District of. Columbia	952	North Dakota	1,381
Florida	34,644	Ohio	15,022
Georgia	15,987	Oklahoma	5,202
Hawaii	3,895	Oregon	6,409
Idaho	2,661	Pennsylvania	19,131
Illinois	23,360	Rhode Island	1,990
Indiana	9,349	South Carolina	7,112
Iowa	4,833	South Dakota	1,350
Kansas	4,165	Tennessee	8,274
Kentucky	5,953	Texas	57,748
Louisiana	11,158	Utah	5,736
Maine	1,843	Vermont	913
Maryland	13,917	Virginia	14,806
Massachusetts	11,034	Washington	14,283
Michigan	10,358	West Virginia	2,520
Minnesota	9,481	Wisconsin	8,383
Mississippi	4,906	Wyoming	1,812

Missouri	9,666		

2010

Area	GDP Current Millions 2010	**Area**	GDP Current Millions 2010
Alabama	*7,617*	Montana	1847
Alaska	1882	Nebraska	3362
Arizona	11739	Nevada	6351
Arkansas	3998	New Hampshire	1761
California	57387	New Jersey	14714
Colorado	9369	New Mexico	3441
Connecticut	5707	New York	33347
Delaware	1594	North Carolina	14321
District of. Columbia	930	North Dakota	1432
Florida	31110	Ohio	14242
Georgia	15028	Oklahoma	5235
Hawaii	3653	Oregon	6021
Idaho	2563	Pennsylvania	18768
Illinois	21337	Rhode Island	1867
Indiana	9377	South Carolina	6686
Iowa	4662	South Dakota	1316
Kansas	4062	Tennessee	8227
Kentucky	5572	Texas	55956
Louisiana	10315	Utah	5555
Maine	1808	Vermont	915
Maryland	13327	Virginia	14660
Massachusetts	10722	Washington	12944
Michigan	10155	West Virginia	2518
Minnesota	8952	Wisconsin	7952
Mississippi	4768	Wyoming	1784
Missouri	8781		

APPENDIX C

Similar Laws:

The last filter system was designed to determine comparative states that had not passed or flirted with the idea of passing laws similar to HB 56. It is imperative to select states that similar to Alabama in Construction GDP and share of illegal immigration in the labor force. This creates a baseline data from which Alabama can in turn be compared, and tested for significant change.

Table 50: Similar Laws: Stated With Laws Similar to HB 56 and Proposed Similar Legislation

Source: UCLA School of Law, Hugh & Hazel Darling Law Library: Copycat States

States with Similar Laws (HB 56)

State	Passed Legislation	Name of Legislation	Proposed Legislation
Alabama	X	HB 56	
Alaska			
Arkansas			X
Arizona	X	SB 1070	
California			
Colorado			
Connecticut			
Delaware			X
Florida			X
Georgia	X	HB 87	
Hawaii			
Idaho			X
Illinois	X	HB 6937	
Indiana	X	SN 0590	
Iowa			
Kansas			X
Kentucky			X
Louisiana			X
Maine			
Maryland			
Massachusetts			X

Michigan			X
Minnesota	X	HF 3830	
Mississippi	X	SB 1070	
Missouri			X
Montana			
Nebraska			
Nevada			X
New Hampshire			
New Jersey			
New Mexico			
New York			
North Carolina			X
North Dakota			
Ohio			X
Oklahoma	X	HB 1804	
Oregon			
Pennsylvania	X	HB 2476	
Rhode Island	X	H 8142	
South Carolina	X	HB 4919	
South Dakota	X	HB 1199	
Tennessee	X	SB 1070	
Texas			X
Utah	X	HB 70	
Vermont			
Virginia	X	HB 2332	
Washington			
West Virginia			
Wisconsin			X
Wyoming	X	HB 94	

APPENDIX D

Table 51: HB 56 Survey: Concrete

Tabulated Results: Concrete

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	6	0	2	0	2
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	2	0	7	1	0
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	3	0	7	0	0
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	0	3	0	2
Question 5	Strongly Agree	Agree	No Impact	Disagree	Strongly Disagree
	0	0	10	0	0

Table 52: HB 56 Survey: Masonry

Tabulated Results: Masonry

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	4	0	3	2	1
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	2	1	6	0	1
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	3	1	5	0	1
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	6	2	1	1	0
Question 5	Strongly Agree	Agree	No Impact	Disagree	Strongly Disagree
	1	1	8	0	0

Table 53: HB 56 Survey: Framing

Tabulated Results: Framing

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	5	0	3	1	1
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	4	0	4	1	1
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	0	4	4	2	0
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	2	2	0	1
Question 5	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	0	0	9	1	0

Table 54: HB 56 Survey: Drywall

Tabulated Results: Drywall

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	3	1	3	2	1
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	2	0	6	2	0
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	2	1	5	2	0
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	0	3	2	0
Question 5	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	0	7	2	0

Table 55: HB 56 Survey: Flooring

Tabulated Results: Flooring

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	3	1	3	1	2
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	1	2	6	1	0
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	1	4	4	1	0
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	2	3	0	0
Question 5	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	1	8	0	0

Table 56: HB 56 Survey: Painting

Tabulated Results: Painting

Question 1	Strongly Negative	Negative	Neutral	Positive	Strongly Positive
	3	1	4	1	1
Question 2	Greatly Reduced	Reduced	No Impact	Increased	Greatly Increased
	1	1	8	0	0
Question 3	Greatly Decreased it	Decreased it	No Impact	Increased it	Greatly Increased it
	1	2	4	3	0
Question 4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	1	3	1	0
Question 5	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	0	9	0	0

APPENDIX E

Table 57: Content Analysis of Survey Comments, Garcia 2013.

Content Analysis

Primary	**Secondary**	**Tertiary**
Shortage	Workers	Not bid
Traveling	Far	Crews
Prosecution	Leaving	Legal Workers
Shortage	Laborers	Cant bid
Labor Force	Plummeted	Shortage
Hardest	Multi Framing	Jobs
Positive	Legal	Illegal Struggling
E-verify	Don't Hire	Illegals
Work	Slow	Bad
Workers	Not Enough	Laborers
Workers	Mexicans work Hard	Can't find
E-Verify	Work	Don't Have
SW+ NE Alabama	Work	Hard Time
HB 56	Negative	Laborers
Work	Decreased	Near government

Table 58: Use of Negative Connotations, Garcia 2013

# of Negative Words			
Work/Workers/Labor Force/Jobs	Shortage	Not Traveling	Prosecution
	Shortage	Cant Bid	Plummeted
	Shortage	Hardest Reduced	Slow
	Bad	Not Enough	Can't Find
	Don't Have	Hard Time	Negative
	Decreased		
# of Positive Words			
E-Verify	Positive	Helps	Legal Work