THE PRICE OF ACCEPTANCE: SOCIOECONOMIC FACTORS AND COLLEGE STUDENTS' ATTITUDES TOWARDS INDIVIDUALS WITH DISABILITIES

An Undergraduate Research Scholars Thesis

by

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ABSTRACT

The Price of Acceptance: Socioeconomic Status as an Indicator of College Students' Comfort Levels Toward Individuals with Intellectual and Developmental Disabilities

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Literature Review

Prior research has focused on how other factors may impact college students' attitudes toward individuals with disabilities (e.g., Griffin et al., 2012), as well as how economic factors predict attitudes toward social issues, yet no available studies have analyzed the extent to which socioeconomic status impacts college students' attitudes towards individuals with IDD.

Thesis Statement

As IPSE programs become more common, understanding the underlying mechanisms that either promote or obstruct students' success is vital to creating a diverse and inclusive campus life for all students.

Theoretical Framework

As seen in other studies, socioeconomic status affects more than just the amount of money a person has; these factors may provide insight as to whether the type of students who attend Texas A&M would be supportive of an inclusive program.

Project Description

Our research team used a campus-wide questionnaire of 1,273 students at Texas A&M University regarding inclusion in postsecondary education for students with IDD. My thesis focused on specific responses from undergraduate students to the statement, "I would be comfortable being in the same class as someone with IDD," (n=1094) which they answered on a 5-point scale (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree). We used family's combined household income as a proxy for socioeconomic status. My research question is as follows:

Is socioeconomic status a predictor of undergraduate students' comfort levels towards individuals with intellectual and developmental disabilities?

Parent's education and race were both negatively correlated with income, and knowing someone with a disability positively correlated with income. In the regression model, income was not a significant predictor of comfort levels towards individuals with IDD at $p<0.05$ level. However, familiarity with the term IDD, knowing someone with a disability, and gender were significant at $p<0.05$ level

Income was not significant in the model, implying that socioeconomic status does not have an affect on student comfort levels towards individuals with IDD. This could reflect positively on the issue as a whole, showing that SES would not affect how students feel towards individuals with disabilities. Other significant factors included familiarity with the term IDD and knowing someone with a disability, suggesting that efforts should be focused more on raising awareness amongst students. According to the model, educating the student population about inclusion and IDD would have a much stronger impact on comfort levels than SES. The results indicate that Texas A&M students could be supportive of an IPSE.

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INTRODUCTION

For many young adults with intellectual and developmental disabilities (IDD), educational opportunities ended with high school. However, in the past 20 years, many opportunities have opened for young adults with IDD, such as inclusive postsecondary education programs (IPSE). These programs are housed at universities or community colleges and provide students the chance to earn a non-degree certificate by participating in campus activities and courses (Grigal, Hart, Smith, Domin, & Sulewski, 2013). ISPE programs emphasize immersion into the existing student community, including social aspects such as student organizations and traditions. These programs are intended to make students feel included in the campus life alongside their peers comprising the larger student body. The goal is to give individuals with IDD a typical college experience and a chance for personal education and growth in preparation for employment. Faculty and staff at Texas A&M University are planning to develop a four-year inclusive college program for individuals with IDD. The program would include classes with regularly admitted students, ability to live on campus or in campus-supported housing, and participation in student organizations, events and traditions. I served on a research team in which we launched a campus-wide survey to assess the readiness of the undergraduate student body to create such a program.

As IPSE programs become more common, understanding the underlying mechanisms that either promote or obstruct students' success is vital to creating a diverse and inclusive campus life for all students. Prior work has examined how a training course affected healthcare students attitudes towards individuals with disabilities, and results show that learning about this population increase positive attitudes (Jones, McQueen, Lowe, Minnes, & Rischke, 2015).

Female healthcare students described working with individuals with autism as "difficult, challenging, and frustrating, yet rewarding, important, and an opportunity to develop personally and professionally" (Werner, 2011). A study of Chinese university students also found that values such as benevolence, humanity, and a sense of justice relate positively to attitudes about individuals with disabilities, while values such as intolerance and cultural superiority relate negatively (Hampton & Xiao, 2009). Another study of Chinese education and medical students found that female students "expressed more positive attitudes" than male students, but their area of study did not affect perceptions (Li, et al., 2012). A study in Greece also found that healthcare students' attitudes towards individuals with disabilities were quite lower than other developed countries (Kritsotakis, et al., 2017). These studies on attitudes towards individuals with disabilities help to gain a better perspective on the full picture of inclusion at the university. Although these studies provide insight into college students' attitudes of individuals with disabilities, they do not examine economic factors such as social class and income.

In another area of study, researchers have examined how socioeconomic factors, such as income, social class, or education level, influence college students attitudes toward many variables. At a predominantly white university, a study found that racial identities among black students do not vary across socioeconomic status (Fhagen-Smith, et. al, 2010). An Australian study on tobacco use found that income is "significantly related to smoking in female [college students]" (Jing, et. al, 2011). Research has also found that a student's level of income is positively related to knowledge of personal finance topics and levels of self-efficacy (Heckman & Grable, 2011). These various studies demonstrate the diversity in the use of socioeconomic status as a factor, and affirm that it is a significant and necessary factor to examine when implementing this program.

Prior research has focused on how other factors may impact college students' attitudes toward individuals with disabilities (e.g., Griffin et al., 2012), as well as how economic factors predict attitudes toward social issues, yet no available studies have analyzed the extent to which socioeconomic status impacts college students' attitudes towards individuals with IDD. We surveyed 1,262 undergraduate students at Texas A&M University and analyzed how socioeconomic factors may influence their comfort levels toward individuals with IDD. This study examines economic factors that affect attitudes among college students regarding inclusion of individuals with IDD. Economic factors that link into this issue are particularly important to study because they may indicate if a certain school would run a successful IPSE program based on the socioeconomic makeup of the student body. As seen in other studies, socioeconomic status affects more than just the amount of money a person has; these factors may provide insight as to whether the type of students who attend Texas A&M would be supportive of an inclusive program. If the students on campus are supportive of individuals with IDD, the program will be much more successful, and it is important to see what factors cause positive attitudes to help other campuses develop similar programs in the future. Specifically, my thesis aims to answer the research question:

> Is socioeconomic status a predictor of undergraduate students' comfort levels towards individuals with intellectual and developmental disabilities?

CHAPTER I

METHOD

I served on a research team that recruited faculty and students to participate in a survey about inclusion on campus. Participants were 1,867 faculty and students of a large research university in the south central United States. To be included in the study, participants must have been affiliated with the university as a faculty member, undergraduate student, or graduate student during the 2017 fall semester. We removed 299 participants from the initial sample because they indicated their primary role at the university was staff or other. Most participants were undergraduate students (n = 1, 262, 67.6%); 12.7% (n = 238) were doctoral students; 12.1% (n = 225) were faculty members; and 7.6% (n = 142) were masters students.

I chose to focus my analysis on undergraduate students (n = 1094) in the sample because Focusing on undergraduate students ensures that if the program at Texas A&M is created, the student body would welcome the students in the program, and they would be able to have the full college experience. Since undergraduates make up 77.4% (51,232) of the student body at Texas A&M, focusing on this population will help to gain a good insight on campus opinions, as a whole.

Recruitment and data collection took place from October to December 2017. We sought to attain broad representation from a sample reflecting the racial/ethnic, economic, and discipline diversity of students and faculty from the university. We recruited participants through two campus-wide email announcements (i.e., sent to all faculty, students, and staff) inviting them to participate in a survey focusing on their views of inclusion and diversity on campus. These emails were sent at the beginning of the survey window and at the end as a final reminder with

the survey deadline. Additionally, we partnered with student organizations and departments to extend study invitations to participants across campus.

We used the university's student activities website to identify student organizations with the highest amount of members. We contacted 180 undergraduate student organizations with membership ranging from 50 to 1,000 students. Areas of focus for the targeted groups included: cultural and international (n = 42), fraternity and sorority (n = 31), business (n = 24), engineering (n = 21), agriculture (n = 16), liberal arts (n = 15), education (n = 11), religious (n = 9), and service (n = 9), military (n = 1), and athletics (n = 1). We also contacted 28 graduate student organizations with membership ranging from 10 to 1,000 students. Areas of focus for these groups included: academic (n = 19), cultural and international (n = 6), and student government (n = 3). Partnering organizations could choose an appropriate way to recruit participants (e.g., fliers, phone scripts, personalized email invitations, social media blurbs). We also provided paper surveys and flyers to distribute as students passed through a heavily trafficked area on campus comprising the student union and tabling booths.

We took several steps to ensure anonymity and secure a large, diverse pool of participants. First, participants were not asked to share any information on the online survey. Second, we designed the survey to be completed in less than 20 min. Third, we randomly selected 50 participants to receive a $25 Amazon gift card. We requested voluntary contact information on a separate form not linked to survey responses.

We asked four questions related to the participant's role at the university. First,we asked them to identify their role from the following options: (a) undergraduate student, (b) masters student, (c) doctoral student, (d) faculty member, (e) staff, or (f) other. We used branching logic from this question to guide the remaining survey questions based on the response. If "staff" or

"other" was selected, the following message appeared: "Given the nature of the survey's primary focus on coursework and class participation, most of the questions are designed for students and faculty who engage directly in those classes."

Students and faculty were asked to select from a drop-down menu their primary discipline (with 18 options and the option to write in "other"), and their affiliated college (with 16 options of all colleges included in the university). Students were asked to identify their planned graduation date (ranging from Fall 2017 to Fall 2021) and the number of academic years they have completed at the university (ranging from 0 to 11 or more).

We asked participants about the extent to which they have had interactions with individuals with intellectual and developmental disabilities (IDD) throughout their lifetime, including current experiences at the university. We provided definitions of "intellectual disability" and "developmental disabilities" from the American Association on Intellectual and Developmental Disabilities (2017). First, we asked whether the participant was familiar with these terms, whether they have known someone personally with an IDD; and whether they have an IDD. Response options were yes or no.

We asked participants about the extent to which they believed young adults with IDD would be successful in an inclusive education program if it were developed at the university. We slightly modified questions from Gibbons et al. (2010) related to expectations of students with IDD and the impact they would have on campus and in class. Response options were provided on a 5-point, Likert-type scale (1 = strongly disagree to 5 = strongly agree). Table X provides a summary of these items.

The final section of the survey asked participants to complete demographic information related to gender, racial identity, language, age, marital status, household income, and parents' highest level of education. Table 1 provides a summary of these items.

Table 1. Demographic Information

Variables	n(%)*	Variables	n(%)*
Race/ethnicity		Family's household income	
White	668(59.0)	Over $120,000	187(17.1)
Hispanic/Latino	227(20.0)	$100,000-$120,000	136(12.4)
Asian	96(8.5)	$75,000-$99,999	105(9.6)
Multiracial	58(5.1)	$50,000-$74,999	133(12.2)
Black/African American	44(3.9)	$35,000-$49,999	99(9.0)
Native American/Alaska Native	9(0.8)	Less than 35,000	190(17.4)
Middle Eastern/North African	3(0.3)	Not reported	244(22.3)
Other	4(0.4)	Parents graduating from college	
Not Reported	24(2.1)	No	
Gender		Father only	
Female	853(75.2)	Mother only	
Male	271(23.9)	Yes, both parents	
Other	10(0.9)	I don't know	
Prior experience interacting with someone with disability		Familiarity with term IDD	
Yes	1019(80.7)	Yes	1079(92.7)
No	138(10.9)	No	85(7.3)

*Percentages based on number of participants who responded to this item

We explored the potential factors that could contribute to the willingness and level of comfort faculty and students demonstrated toward the prospect of having students with IDD on campus. In preparation for building a linear multivariate regression model for these continuous variables, we conducted correlation analyses to understand the relation between these dependent variables and a selection of independent variables. We computed Pearson correlation coefficients to examine associations among continuous variables and used point-biserial correlation coefficients for combinations of continuous and dichotomous variables (see Table 2).

We selected independent variables based on demographic factors (i.e., race/ethnicity, gender, income, first generation college student) as well as potential indicators of greater

familiarity and experience with individuals with IDD (i.e., familiarity with the terminology, personal relationship with someone with IDD). Additionally, we were interested in knowing the extent to which these variables may have been associated with the willingness and level of comfort students demonstrated toward the prospect of having students with IDD on campus.

Table 2. Student Correlation Among Predictor and Outcome Variables

Variables	1	2	3	4	5	6	7
1. Income	-						
2. First generation college	-.065*	-					
3. Female	.028	-.005	-				
4. White	.099**	-.251**	.094**	-			
5. Comfort level	.040	.006	.133**	.074**	-		
6. IDD familiarity	.015	-.033	.054*	.163**	.122**	-	
7. IDD relationship	.055*	-.056*	.090**	.215**	.093**	.234**	-

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

We evaluated student responses to the question: I would be comfortable being in the same class as someone with IDD. Response options were presented on a Likert-type scale, possible range 1-5, wherein 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. We used the following binary variables: female (1 = female, 0 = male); race/ethnicity (1 = White, 0 = non-White); first generation college student (1 = yes, 0 = no); familiarity with the term “intellectual and developmental disabilities” (1 = yes, 0 = no); and personal relationship with an individual with an intellectual or developmental disability (1 = yes, 0 = no). We also used the continuous variable of family’s household income (possible range 0-6, wherein 0 = I don’t know or I prefer not to answer, 1 = less than $35,000, 2 = $35,000-$49,999; 3 = $50,000-$74,999; 4 = $75,000-$99,999; 5 = $100,000-120,000, 6 = more than $120,000).

CHAPTER II

RESULTS

We used correlation analyses to examine the relationship between socioeconomic status and other possible indicators of comfort levels of being in a class with someone with IDD. Parents' education (i.e., whether or not they graduated from college) was positively correlated with income, meaning that as education increased, income increased. A person's race, categorized as "white" or "non-white", was also negatively correlated with household income. Knowing someone with a disability positively correlated with income, meaning that as income increased, people were more likely to know someone with a disability.

We used the correlations to create a linear regression model to evaluate the potential predictors of higher comfort levels toward being in a class with someone with IDD (See Table 3). Parent's education was removed from the model due to high correlation with income. The regression model accounted for 2.2% of the variance in comfort levels among students, R^2=0.022. Income was not a significant predictor of comfort levels towards individuals with IDD. However, several other factors were significant in the model. If a person was familiar with the term IDD, they were more likely to have positive attitudes towards people with IDD. If a person knew someone with a disability, attitudes were also more likely to be positive. Females were more likely to have higher comfort levels, as well. In this model, income is not a significant predictor of on whether a student is comfortable being in a class with someone with IDD.

We used descriptive statistics to summarize participants' views on the educational and employment opportunities that should be afforded to individuals with IDD and their willingness to accept students with IDD on their campus (see Table X). Approximately 85% of students

agreed or strongly agreed with the statement: “I think people with IDD can succeed in a four-year college or university.” Approximately 86% of students agreed or strongly agreed with the following statement: “I think students with IDD should have the opportunity to advance their education through a certificate-based inclusive program on a university campus.” However, only 62.8% students agreed or strongly agreed with the statement: “I think people with IDD can obtain the job of their choice.” Most students (92%, n = 1,353) indicated they would be comfortable being in the same class as someone with IDD.

Table 3. Summary of Regression Analyses

	Comfort of being in the same class as someone with IDD	
Variable	B	SE
Income	.008	.020
Female	.093**	.051
White	.001	.024
IDD Familiarity	.069**	.173
IDD Relationship	.101**	.137
R^2	.026	
Adjusted R^2	.022	
F	5.837	

**Correlation is significant at the 0.05 level (2-tailed)

CHAPTER III

DISCUSSION

In order to make college campuses welcoming towards individuals with IDD, we must understand the factors which indicate acceptance. This study focused specifically on how socioeconomic status affects undergraduate students' attitudes towards individuals with disabilities. From the results of the study, I have gained an understanding of how different factors work together to inform perspectives on disability.

Income was not significant in the model, implying that this form of socioeconomic status does not have a significant effect on student comfort levels towards individuals with IDD. SES, while an important factor, results show that it is not necessarily relevant when dealing with college students. I looked at family income, and that factor would have affected students throughout their lives. This could reflect positively on the issue as a whole, showing that SES would not affect how students feel towards individuals with disabilities.

The significant factors in the model included familiarity with the term IDD and knowing someone with a disability, suggesting that efforts should be focused more on raising awareness amongst students. Educating students is an actionable approach that is capable of bringing real change on campus. According to the model, educating the student population about inclusion and IDD would have a much stronger impact on comfort levels than SES. The results indicate that Texas A&M students could be supportive of an IPSE program. The factors affecting comfort levels are mostly able to be changed, creating a bright outlook for the future of individuals with disabilities on our campus if students receive training that allows them to feel equipped to support their peers with IDD.

CHAPTER IV

LIMITATIONS AND FUTURE RESEARCH

Since the data for this study was obtained through a survey, inherent limitations exist within it. Surveys can only capture what people choose to report, and that information is still limited. The survey is also taken from a single sample of students at one university, it would be beneficial for future researchers to obtain data from different universities to widen this perspective.

The household income proxy for SES captures much of a person's socioeconomic status, but there are still pieces of that variable missing. There are other things that make up SES, such as place of residence and parental involvement. These other aspects of SES would be helpful to have when conducting this type of study, although they may not be able to be obtained by a self-reported survey. Researchers aiming to study this topic could look more closely into the specific pieces of SES, gaining a more complete picture of the socioeconomic landscape of the sample.

Only a small portion of the variance in attitudes could be explained by the regression model. There are many other factors which may have not been included on the survey that affect students attitudes. These factors could include things that affect students throughout their lives such as religion or views on values, or they could be factors introduced in college such as whether a student has taken a class that emphasizes diversity. Additionally, it may be helpful to know the depth of relationship with a person with IDD. Having a family member with a disability is very different than having a casual acquaintance at school with a disability, and it could possibly affect that person's viewpoint.

Based on this study, SES is not significant for students and faculty to focus on when increasing inclusion on campus. More important things to consider are education and increasing awareness of disability. These goals can be implemented through various programs, and are more likely to be successful in creating an inviting campus for all students.

CONCLUSION

The future of IPSE programs lies in the ability to include those individuals on campus. From this study alone, it is clear that there are many underlying factors affecting attitudes towards individuals with disabilities. Although SES was not significant in this model, it is important to keep in mind that people's views can be influenced by many different factors. Future research may go deeper into different factors and how they may influence views on disability. As we learn more about inclusion and diversity of ability on college campuses, we step closer to a vision of a college experience that everyone can take part in.

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