Predicting public confidence in higher education institutions: An analysis of social factors

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ABSTRACT

Research indicates that there are two primary aims of the higher education institution: (a) scientific and scholarly inquiry, and (b) the instruction of students (Veblen, 1918). This aim has been reified consistently for nearly a century. By 2002, the pursuit of higher education had reached record levels. However, more recently, public confidence in higher education is decreasing Previous research posits that public confidence in the institution of higher education is an important component of understanding the extent to which these institutions are delivering on their core missions, and that confidence varies based on specific social and economic factors. Using logistic regression techniques with data from the General Social Survey (GSS), this study Results support previous literature in highlighting the importance of race, while downplaying the previously posited importance of respondent age. Further, this study finds that ideology represented by political party affiliation is statistically significant in predicting confidence in these institutions.

Keywords: Higher education, universities, colleges, confidence, social factors

INTRODUCTION

Higher education at the turn of the 19th century purported to embody the altruistic axiom "knowledge for the sake of knowledge." Educators were among the intellectual elite of society and delivered carefully crafted lessons to learners privileged enough to be admitted to their classes. The focus of the higher education institution was to educate these privileged few in the manner of society, culture, and the traditional academic disciplines (Hallinan, 2006).

Over time, the emphasis on imparting unique knowledge content to the elect few in society was joined in purpose by the interest in *creating* knowledge through rigorous exploration and research. This shift was not without friction. Demand for time and a multiplicity of skills prompted educators to focus primary attention on one or the other. Noted scholar Thorstein Veblen broached this dynamic in his 1918 seminal piece on higher education, *The Higher Learning In America: A Memorandum On the Conduct of Universities By Business Men*, which pointedly describes the systemic conditions of the higher academic conditions in the U.S. at the turn of the 20th century, a period in which the pursuit of scholarly research and quality teaching caused the development of a subtle "mission fragmentation" within the institution. Steps were instituted to allow faculty to primarily focus on one area or the other (Veblen, 1918).

By the 20th century the function of the researcher and instructor re-converged as institutions further recognized the value of the research component and required instructors to teach classes to retain the lecture fees within the institution and to help offset the costs of pursuing ambitious research agendas. Instructors were expected to satisfy both functions, though primary emphasis for performance review and promotion was placed in research performance. As of the early part of the 21st century this continues to be the prevailing model deployed by major higher education institutions (Daniels, 1997).

Learner interests and demands have also undergone significant transformations. Prior to the 19th century higher education was reserved for a small portion of society that showed exceptional academic promise or enjoyed significant financial or social capital. By the 19th century seats in lecture halls were opened to a slightly larger portion of the population, though monetary demands still served as a filter between those who participated in higher education and those who could not (Goldin and Katz, 1999). Though the 19th century in the United States saw a significant increase in the number of higher education institutions from the previous century, demand for seats continued to outstrip supply (Goldin and Katz, 1999).

By the middle of the 20th century the marketplace was increasingly placing emphasis on higher education credentials. Aided by supply-side policies put in place after World War II, such as the American GI Bill, higher education aspirants flooded universities at an unprecedented rate. Higher education became a mode of upward mobility at the individual level and a competitive advantage in the emerging post-war global economy at the national level (Ibarra, 2001). This influx in student populations dovetailed nicely with economic expansion in the U.S, which validated the investment in credentials through preparation for the increasing number of employment opportunities. Among the ranks of this influx of higher education participants were large numbers of first-time college attendees, those from middle to low economic status, and, eventually through crucial social shifts such as the civil rights and feminist movements, previously underrepresented racial minorities and women (Schofer & Myer, 2005).

By the 1960s, the market struggled to absorb the increasing numbers of college graduates. By then, credentialing had reached such a fevered pitch in the U.S. that the value of

the degree did not always translate as well in the marketplace, and graduates were found among the nation's taxi drivers, domestic laborers, and independent street vendors (Collins, 1971).

The credential inflation of the 1960s, 1970s and early 1980s, was followed by a period when the market again renewed its thirst for degree holders and learners continued to flock to institutions of higher learning in increasing numbers. However, the lessons of the credential inflation period prompted a more discerning eye to be cast on the implied value of the degree. Its value was not viewed as less in terms of upward mobility, but it was also not viewed as a guarantee to gainful employment. Summarizing Collins, the college degree became viewed as a necessary but not sufficient condition for economic and career mobility (Collins, 1971).

Thus, this renewed period of interest in higher education was tempered by increased demands from learners and less willingness on the part of non-traditional learners to significantly alter their lifestyles in pursuit of higher education. Learners wanted the benefit of the outcome of the credential, but they did not want to sacrifice other aspects of their lives in its pursuit. By the turn of the 21st century, diversity was prevalent among the ranks of a broadened learner population, but confidence levels were found to differ significantly across a variety of social characteristics. This duality of interest in the desire to utilize education as a means of social mobility and yet varied levels of confidence in the institution itself seems to find its roots in race, socioeconomic status, and political persuasion. (Allen & Seaman, 2008)

This backdrop to the evolution of higher education over the past century is vital to understanding the development of models that attempt to predict high levels of confidence in higher education institutions. As higher education began to take shape in the 19th century, it was reserved for the privileged few and embodied little diversity. One might assume, though data are not available to test this assumption, that confidence was high in this tightly restricted environment. Participating students tended to be high on social and economic capital, and higher education was as much a rite of passage for those linked to influential networks, as it was a means of social mobility (Bastedo & Gumport, 2003).

As the barriers to higher education decreased, however, broader student populations were introduced into the higher education ranks. Important measures of institutional efficacy, such as graduation rates, fluctuated accordingly. As graduation rates started to see significant fluctuations, the study of the perception of confidence in higher educational institutions gained momentum. (Schofer & Myer, 2005)

Public confidence in higher education institutions is an important but less considered component of understanding the level to which educational institutions satisfy their long-standing aim of providing access to knowledge across to a broad cross-section of the population (Tinto, 1975). Of those who have looked at confidence levels in educational institutions, much of the work is reminiscent of the classical concept of Marxist alienation. Specifically, Cook & Sebring (1987) posit a framework that borrows from Marx's concept of *estrangement* within the alienation framework to attempt to unpack the social factors that predict having a high level of confidence in higher education institutions. They note that the lower the access to institutions a given segment of the population enjoys the more "estranged" they will be from that institution and, by extension, the less confidence these segments will have in the institution.

Preceding this piece was Kleiman and Clemente's (1976) work, which formalized a working model of variables helpful in predicting confidence levels in educational institutions. Their work found that race and age but not gender are important predictors of higher levels of confidence; African-Americans express more confidence than non-African-Americans. Interestingly, the level of educational attainment did not prove nearly as significant in their

model as race. These findings are compatible with Dearman's (1981) later work which further reinforced the importance of race, among other factors, in predicting confidence levels in higher education institutions. One factor which has not been consistently examined by researchers is political party affiliation.

The prevailing framework of these studies reached their peak in the late 1980s and they leaned heavily on data from similar points in time. Much has changed in higher education since these studies were conducted. Notably, while learners were participating in higher education at the highest rate in history as of 2002, the trend of overall confidence in these institutions has steadily declined with the high level of confidence from 37.3% in 1974 (the first year for which this question was included in the survey) to 26% in 2002 (GSS trend output, 2002).

This study is aimed at helping to update the general understanding of the predictors of confidence in higher education institutions; more specifically, it was undertaken to determine how a set of independent variables which consistently appear in the literature as influencing confidence in educational institutions hold when utilizing updated survey data from 2002 while enhancing the framework by including the ideological factor of political party affiliation.

It is expected that several of these factors will be more significant in predicting high levels of confidence in these institutions than others. Namely, race is predicted to be significant with African-American respondents more likely to express confidence in higher education institutions. It is well established that higher levels of income are typically associated with higher levels of educational attainment. Therefore, it is anticipated that the income level of the respondent will play a role in the level of confidence he or she expresses in educational institutions; as income rises above $50,000 annually respondents are likely to express more confidence in higher education institutions.

It is expected that married respondents are more likely to express confidence in these institutions as they represent more traditional values which tend to be broadly compatible with confidence in institutions in general (Cook & Sebring, 1987). In the pages that follow, I test the following hypotheses using logistic regression on 2002 data provided by the General Social Survey (GSS).

Hypothesis 1: There is a relationship between race and confidence in higher education institutions; Specificially, African-Americans will be more likely to express confidence in higher education institutions than those of other races.

Hypothesis 2: There is a relationship between income and confidence higher education institutions. Specifically, those making over $50,000 per year will be more likely to express confidence in higher education institutions than those making less than $50,000 per year.

Hypothesis 3: There is relationship between marital status and confidence in higher education institutions. Married respondents are more likely to express confidence in higher education institutions than single respondents.

METHODOLOGY

Data for this study was compiled from the 2002 General Social Survey (GSS). The survey is a compilation of multiple social factors. In general, the education section of this survey aims to capture the attitudes and opinions on educational efficacy from a representative sampling

of the population of the United States. The question posed to respondents in this survey seeks to gauge whether they are more or less confident in higher education institutions. This research utilizes logistic regression techniques to analyze the factors that lead to increased expressed confidence in higher education institutions.

The dependent variable in this analysis is dichotomous and measures the level of confidence in higher educational institutions based on the 2002 survey of randomly selected respondents by the General Social Survey (GSS). Specifically, GSS asked "Regarding higher educational institutions, would you say you have a great deal of confidence, only a little confidence, or hardly any confidence at all in them?" Looking at the mean values provided confidence that this variable could be patterned after the dichotomous previous research model of "confident" or "less confident;" consequently "only a little confidence" and "hardly any confidence" are collapsed to represent "less confidence." Of those in the entire survey sample who were asked this question, 679 correspond to "somewhat/less confident" and 227 answered "a great deal/confident" for an overall response of roughly 40%. The mechanics for coding this dichotomous variable follow that those responding "a great deal" received a "1" (great deal=1) and those responding "somewhat less" received a "0" (less=0).

Data from a single year of the General Social Survey, 2002, were utilized in this study. The independent variables of primary interest to this study are "Race," "Income" and "Marital Status". In addition, we control for "Political Affiliation." Following Kleiman and Clemente (1976), this investigation also controls for the work status of the respondent, the respondent's sex, and respondent's age. The work status of respondents for this particular variable in the 2002 GSS survey follows: working full-time, working part-time, and not working. Sex was measured as "1" for male and "0" for not male (female). Age of respondent was re-coded into ordered groups to simplify their interpretation. It is important to note that each of the independent variables used in this study correspond to the same year, thus reducing the selection effects of varied year responses which might otherwise influence the results.

RESULTS AND ANALYSIS

This study is concerned with understanding the factors that predict a higher level of confidence in higher education institutions. In order to better understand these characteristics, logistic regression was performed. The results of the regression are presented in Table 1. Prior to conducting the regression analysis, the variables included in the study were treated for mulitcollinearity. The findings are relatively immune to multicollinearity, enhancing the appropriateness of what they reveal. Testing for multicollinearity through variance inflation factor (VIF) analysis revealed the independent variables selected to be comfortably below the education research standard threshold of 4, with no reading exceeding a VIF of 1.5.

As predicted, race and political ideology are significant in predicting confidence in higher education institutions. Specifically, the results of the logistic regression show that the coefficients for the variables ideological preference and race are statistically significant at the 0.05 level; they represent statistically significant effects on predicting having confidence in higher educational institutions. As expected, African-American respondents generally expressed having confidence in these institutions. More specifically, the odds for African-Americans (dummy category) expressing confidence in these institutions are $e^{.305926} = 1.36$ times the odds for non-African-Americans (reference category) expressing confidence in these institutions – a finding which is supportive of previous literature. In other words, the odds of African-Americans

expressing confidence in educational institutions are 36% more than the odds for non-African-Americans expressing confidence in these institutions, holding all other variables in the model constant.

The political party affiliation of the respondent also represents a significant effect in predicting confidence in institutions of higher education. The odds of those who identify with conservative ideology expressing confidence in these institutions are .908 ($e^{-.096232}$) times the odds for liberal ideology (the reference category). Said another way, the odds of respondents expressing confidence in these institutions lessen by a factor of .908, or approximately 10%, when the respondents identify with a conservative ideology, controlling for all other variables in the model. Income, sex work status, age, and marital status are not statistically significant to the log odds of expressed confidence levels in educational institutions. In the case of both income and marital status, this runs counter to what was hypothesized at the onset of this analysis.

There are several implications to this brief analysis. Race is a variable that is often studied in the higher education literature. This analysis re-opens and affirms an interesting phenomenon originally rooted in literature from the 1970s in which the odds of African-Americans expressing confidence in higher education institutions is greater than the odds for non-African-Americans. To the extent African-Americans exhibit a willingness to express confidence in higher education institutions over time, an interesting pattern and relevant area of study within the education literature emerges.

While African-American confidence in higher education institutions diverges from the broad estrangement literature, it is substantively intuitive in the higher education context for several reasons. There are several possible explanations for this phenomenon, some of which are discussed below. It may be that African American respondents perceive increased social and economic mobility benefits from participation in higher education institutional offerings and, thus, are more likely to express confidence in the institution's role and function in society.

Interestingly, this finding is consistent with the 1970s work of Kleiman and Clemente (1976), highlighting a consistent trend that spans 30 years. This confidence may also be rooted in a lack of proximity to the leadership of these institutions; Kleiman and Clemente (1976) note that the less represented African-American are in the running of these institutions the more likely they might be to give the leadership the "benefit of the doubt." Yagil (1998) calls this the "magical properties of distance". While this brief analysis is not sufficient to definitively support (or refute) this idea, it does point to an opportunity for further exploration to unpack the underlying mechanisms influencing this pattern.

Political affiliation was controlled for and found that Republicans are less likely to express confidence in higher education institutions. Conservative ideology tends to be underrepresented among faculty and leadership in institutions of higher education, which may explain why Republicans express less confidence in these institutions Gumport, 2007). Though conservatives may feel the desire to gain the credentials afforded through education to comply with present societal norms, it is possible to participate in education and even sponsor the participation of others without expressing confidence in the institutions themselves.

Contrary to the case of African-American respondents in which distance might be advantageous to confidence, political ideology is not typically associated with social mobility and tends to be more value-filled. Both of these tendencies would point to a negative effect on confidence for more conservative respondents. This measure highlights a nontrivial point; willingness to participate in institutions and confidence in said institutions are not the same thing

– norms and myriad other social factors might compel people to participate in institutions without being confident in how they are governed.

While this study points to patterns that are supported by previous research and it contributes to theory by introducing political ideology to the model, it is not intended to fully treat the underlying mechanisms at play in the development of these patterns. Thus, these findings highlight important social nuances in the confidence measure that point to interesting links between data from the 1970s and the 2000s – and some consistency in the findings across the same with regard to race – but they stop short of seeking to definitely explain the causal mechanisms at play in describing these measures.

This study is not without its limitations. Access to only one measure to capture respondent confidence levels in higher educational institutions limits the researcher's ability to develop a robustly meaningful analysis. Sub-level confidence measures to isolate the effects on institutions in general and several named institutions specifically would improve the research. In addition, this study represents a snapshot of a single year of responses from the GSS (2002) as opposed to a longitudinal view that captures confidence measures across multiple years. A longitudinal approach is likely to yield additional trend insights that simply are not available in the single year approach. By sharpening the focus on the confidence measure through a multi-year trend analysis, additional questions and responses may come to light; among them a deeper understanding of social context and world events with regard to the race of respondents and their ideological leaning. For example, are conservative respondents more likely to express confidence in these institutions in the 1970s than in the 2000s and what are the conditions that might influence such a shift in confidence? Will race and political ideology represent endogenous selection characteristics, as access to survey data that allows for further unpacking of each is made available to researchers? Going forward, as marriage becomes less representative of traditional norms and values it will be interesting to see if marital status influences the confidence expressed in these institutions in a significant way. Highlighted herein are just a few areas in which derivative work to this study can be developed. If these institutions are to satisfy their stated aim of "broadened access of knowledge for the sake of knowledge and mobility" the public sentiment expressed in their efficacy should be of importance to academic administrators (Hallinan, 2006).

CONCLUSION

This analysis highlights that the odds of African-Americans expressing confidence in higher education institutions are greater than the odds for non-African-Americans, all other variables constant. More, there is a negative relationship between conservative ideology and confidence in these institutions; as conservative ideology is expressed, the odds of being confident in these institutions lessens. The former is supportive of Kleiman and Clemente's (1976) earlier work, while the latter represents a new contribution to previous models, albeit one that is substantively intuitive. Income does not seem to have a statistically significant effect on predicting confidence in these institutions. Marital status represents a weak statistically significant effect. Gender did not represent a statistically significant effect on confidence in these institutions.

While these results both support those of previous studies and posit fertile areas of additional exploration, they are by no means exhaustive. The above conclusions are not without need for further investigation. Opportunities to more fully understand the race and political

ideology components are ample with additional survey data and iterations of the model presented herein.

This analysis has highlighted (and reaffirmed) patterns, but it does not fully uncover all of the mechanisms at play in the development of these patterns. Not having additional confidence measures linked to public perception of these institutions has somewhat limited this brief analysis; the better researchers are able to triangulate this measure to further flesh out the contributing factors to confidence within the race and ideology measures, the more likely deeper understandings of the predictive effects on confidence are to emerge.

Logistical regression proved a capable statistical technique in conducting this study. Generally, this analysis confirms previous research as to the race component of confidence in these institutions and contributes the understanding of political ideology to further enhance previous models. Concerning the race component, the findings of this analysis highlight persistent confidence of African-American in these institutions from both the 1970s and the early 2000s.

Increased understanding as to how confidence is stratified across a variety of social indicators will provide valuable insight into how to continue to broaden access while improving the quality of the education offered by these institutions. It is well established that access to education is paramount to economic development and social mobility (Shofer & Meyer, 2005). If educational institutions are to maximize their ability to deliver on this aim, then understanding the inflexion points of confidence measures can provide useful prescriptions to academic administrators and policy makers.

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APPENDIX

TABLE 1 LOGIT COEFFICIENTS FOR CONFIDENCE IN HIGHER EDUCATION INSTITUTIONS

Number of obs = 863
Prob> chi2 = 0.0504
Pseudo R2 = 0.3618
Log Likelihood = -476.34089

Variable	b (s.e)	Odds ratio
Work Status	.014955 (.037417)	1.0151
Sex	-.073535 (.16102)	.93
Race	.305926* (.1394635)	1.36*
Age	.004056 (.005042)	1.004
Party Affiliation	-.096232* (.042121)	.908*
Income	.007164 (.014465)	1.007
Marital Status	.229145 (.162979)	1.26

Dependent Variable: (Confidence in Educational Institution)
$^{+}$p<.1 *p<.05