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The Long-Term Outcomes of Graduates' Satisfaction: Do Public and Private College Education Make a Difference?

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Abstract

The comparison of quality between public and private college education is a topic of intense interest, and one that continues to generate ongoing research. This study utilized the General Social Survey 2012 Merged Data to determine if significant difference exists in graduates' long-term outcomes between public and private college bachelor's degree holders in the United States. A sample of 132 bachelor's degree holders of public and private institutions from 1980 to 2010 was selected from the cross-section cases interviewed in 2012 for the MANCOVA analyses using health situation as a covariate. Results indicated that bachelor's degree holders from private colleges are significantly more satisfied with their careers and overall quality of life than those from public colleges. However, no significant difference was found in financial satisfaction between these two groups, even when the effect of their health situation was controlled in analysis. Implications were discussed regarding weighing the cost and value when students make decisions to attend either public or private institutions.

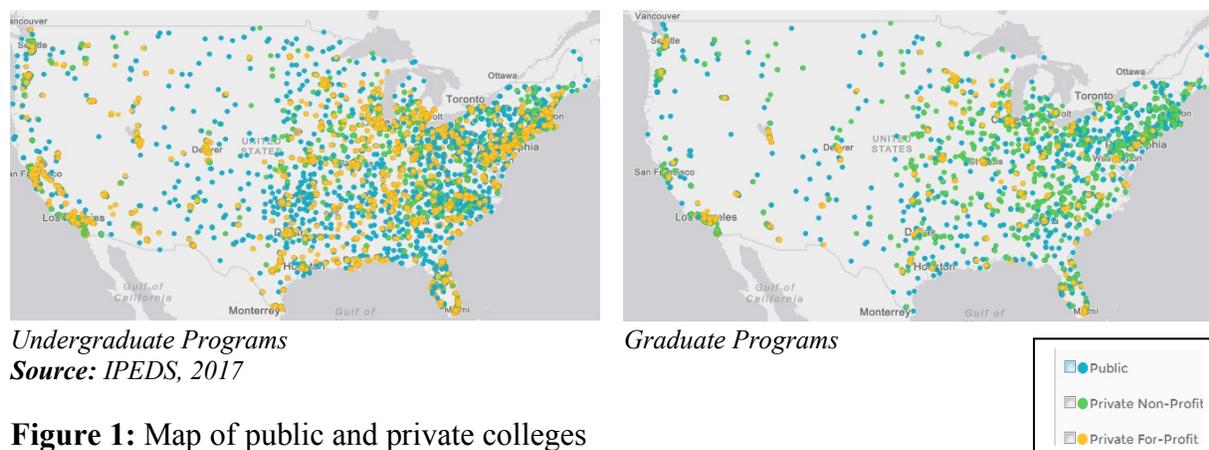
Keywords: college education, long-term outcome, public college, private college

Introduction

Transformational changes in higher education over the past three decades have made college choice an increasingly complex decision (Lee & Chatfield, 2011). For many students and their parents, the first step in the journey to select a college is whether to attend a public or private institution. According to the National Center for Educational Statistics (NCES, 2016), there were 1,583 (37.6%) public and 2,624 (62.4%) private degree-granting institutions in 2014-2015 with first-year undergraduates. Among those first-year graduates, 27.5% of the students were enrolled in private institutions. The total public and private degree-granting institutions offering undergraduate and graduate programs can be visually compared in Figure 1: The Integrated Postsecondary Education Data System (IPEDS, 2017).

The comparison between public and private college education has been continuously discussed for decades. Differences between public and private institutions that parents and students consider and compare can be categorized into college attributes and student attributes. College attributes include factors such as institutional characteristics, cost, academic quality, future career prospects and opportunities, and quality of life at college. Student attributes are

background characteristics, aspiration, educational achievement, and social environment (Chapman, 1984; Somers, Haines, & Keene, 2006).



Undergraduate Programs
 Source: IPEDS, 2017

Graduate Programs

Figure 1: Map of public and private colleges

Distinction between public and private college education is complex in breadth and depth. A scope of research compared public and private institutions on the input factors such as institutional characteristics, faculty quality, academic programs, cost, and student life (e.g., Hill, Hoffman, & Rex, 2005; Levy, 1982; Trow, 1975), as well as the short-term outputs or outcomes of graduation rates, job placement, and starting wage (e.g., Black & Smith, 2004; Monks, 2000). Traditionally, with the support of parents, students believe that they can get a better quality education in private colleges with students and staff more motivated to achieve to a higher standard and successfully complete the courses of study (Achinewhu-Nworgu, 2017).

Private colleges offer smaller size classes, which can benefit student learning by creating more opportunities through individual attention and offering courses with perceived higher standards (NCES, 2008). In addition, religion and family tradition can also be the important factors in selecting private over public colleges. Although communities still see private institutions as the better choice for education, some parents of public college students believe that private college education is not the best fit for everybody since their children’s happiness and academic success rest on a wider set of factors than resources and teaching and learning quality alone (Achinewhu-Nworgu, 2017).

Woodruff (2013) insisted that public universities have advantages in affordability and proximity, while their rival private institutions win in prestige and social scene. Private colleges also represent elitism and superior advantages in education. Public and private universities offer similar opportunity for job prospects, but average tuition and fees for a public four-year institution costs \$20,823 (2011-12 school year), about \$8,000 less than private institutions. From the investment return perspective, Monks (2000) found that the gross return on a college education is significantly higher for elite private colleges than it is for other institutions. Individuals who graduated from highly competitive, elite colleges earned 15% more than someone who graduated from a less competitive institution. Graduates from public institutions earned 4% less than those from private institutions. However, graduates from graduate degree-granting research institutions earned 14% more than graduates from liberal arts colleges that are mostly private (Hill et al., 2005).

A wealth of studies have examined the distinction in public goods or economic and societal benefits between public and private college education (e.g., Hensley, Galilee-Belfer, & Lee, 2013; Hill et al., 2005, Pusser, 2002; Stiglitz, 1999). The conventional understandings of the distinction between public and private higher education guided by the neo-classical economics and statist political philosophy have exposed weaknesses with the development of new competition and potentials for private and public goods. These notions prevent us from seeing its role in producing positional private goods and the social character of the goods, which needs more attention when examining the distinction between public and private higher education (Marginson, 2007). The considerable value of higher education lies in the benefit to the individual benefits as well as the benefit to society (Hill et al., 2005).

The quality evaluation between public and private college education requires more in-depth and validated research to support parents' and students' decision making in their college choice. A large sample study found that over a 10-year period immediately after receiving the baccalaureate, choice of major and individual values are differentially associated with post-college political participation for private institution graduates when compared to the counterparts at public institutions. Graduates who attended public institutions engaged in more political participation than those at private institutions (Lott, Hernandez, King, Brown, & Fajardo, 2013). It is an essential lens of examination that education provided by colleges and universities be judged by the benefits and outcomes for the individual student. The aim of this study was to investigate the possible differences in the long-term outcomes of graduates' satisfaction between public and private college education.

Long-term education outcomes are the perspective goals that guide the development of higher education programs. They are the values that college students will need in order to be successful in their work, family, and community. The long-term outcomes of graduates' satisfaction in this study was delimited and measured by the graduates' perception of satisfaction with their financial situation, their jobs and their families after five or more years beyond graduation. The objective of this study was to determine if there were perceived differences in the long-term outcomes of job satisfaction, family satisfaction, and financial situation satisfaction between public and private college graduates, controlling the possible effect of the individual graduate's health condition.

Data and Methods

Data Source and Sample

The data utilized for this study were from the General Social Survey 2012 Merged Data, which is a national representative sociological survey used to collect information on the concerns, experiences, attitudes, and practices of residents of the United States (NORC, 2012). The important aims of the survey are to collect data on American society with the purpose of explaining trends and constants in attitudes, behaviors, and attributes and to examine the structure and functioning of society and the relevant subgroups. The GSS conducted by the National Opinion Research Center (NORC, 2012) was administered to random and panel samples of the target population of adults living in households in the United States by using computer-assisted personal interview. The GSS 2012 Merged Data had 4,820 cases including 1,974 in the new 2012 panel, 1,551 in the 2010 panel, and 1,295 in the 2008 panel.

This pilot study used the data of 132 sampled cases of the American adults whose highest degree is bachelor based on the GSS 2012 Merged Data. The adults from the sampled cases graduated from public or private four-year institutions between 1980 and 2007. This is the time period which defined these sampled long-term graduates of 5 to 27 years after graduation. The cases of the GSS data set that had the record of highest degree of bachelors were conveniently selected. The age of the sample ranged from 22 to 60 ($M = 38.30$, $SD = 9.96$). Of the cases selected, 53.5% were males and 46.5% were females. The majority of the sample cases were Caucasians (85.6%) with 8.3% of African Americans and 6.1% other minorities. Approximately 65.4% bachelor's degree holders graduated from public institutions and 35.6% graduated from private institutions.

Variables and Measurement

The long-term outcome of college education was operationalized by multiple dependent variables, including graduates' job satisfaction, family satisfaction, and financial situation satisfaction in this study. Respondents to the GSS (2012) were asked to indicate the degree of their general satisfaction or dissatisfaction on their job, family and financial situation. Job and family satisfactions were measured by the 7-point Likert scales of labeled bipolar response options, ranging from 7 = completely dissatisfied, to 6 = very dissatisfied, 5 = fairly dissatisfied, 4 = neither satisfied nor dissatisfied, 3 = fairly satisfied, 2 = very satisfied, and 1 = completely satisfied. College graduates' satisfaction on their financial situation was measured by using the 5-point Likert scales of the labeled bipolar response options ranging from 5 = dissatisfied, to 4 = fairly dissatisfied, 3 = neither satisfied nor dissatisfied, 2 = fairly satisfied, and 1 = satisfied. For easier understanding of the analysis results, all the numbers indicating the Likert items of response choices were reversed when data was analyzed in this study (Schutt, 2015). This transformed the original response options into ones ranging from 1 = completely dissatisfied to 7 = completely satisfied for the job and family scales; 1 = satisfied to 5 = dissatisfied for the financial situation scale, indicating the higher the value of the response option is, the higher satisfaction level it is.

This study aimed to determine the differences in the dependent variable of long-term outcomes of college education between bachelor's degree holders from public and private institutions controlling the possible effect of the individual's health condition. Therefore, the independent variables in this study were the factor variable of college type and the covariate of health. College type was measured by the two-level nominal variable of public and private college, while health was measured by asking the respondents to rate their general health condition using the 5-point Likert scale ranging from 1 = poor to 2 = fairly, 3 = good, 4 = very good, and 5 = excellent.

Analytical Method

The general linear model of multivariate analysis of variance (MANOVA) can be used to detect group differences on several possibly correlated outcome variables simultaneously. It has the power to determine whether groups differ along a combination of dimensions (Field, 2013). Job satisfaction, family satisfaction, and financial situation satisfaction can work together to significantly contribute to an individual's happiness, while the health condition of an individual could affect his/her level of satisfaction. To explore whether there were perception(s) differences in job satisfaction, family satisfaction and financial situation satisfaction between bachelor's

degree holders from public and private institutions, a multivariate analyses of covariance (MANCOVA) was performed using health condition as the covariate on the three scales' mean scores as dependent measures. The purpose of adding the variable of health condition as a covariate in the analysis was to achieve purer difference in satisfaction by controlling its effect on the dependent variables. In addition, the means and standard deviations for the three satisfaction scales broken down by college type were used to describe the satisfaction level.

Results

The means and standard deviations of the long-term outcomes of college education measured by graduates' perceived financial situation satisfaction, job satisfaction, and family satisfaction are broken down by the college type of either public colleges or private colleges, and presented in Table 1. Overall, the sample of 132 college graduates perceived their financial situation to be around the level of "fairly dissatisfied" in 2012. Their satisfaction with job and family appeared to be higher with an average between being fairly satisfied and very satisfied.

Table 1: Means and Standard Deviations for the Perceived Long-Term Outcomes of College Education by College Type

Long-Term Outcomes of College Education	College Type	Adjusted Mean	SD	n
Job Satisfaction*	Public	5.05	1.23	85
	Private	5.51	0.74	47
	Total	5.21	1.10	132
Family Satisfaction*	Public	5.42	1.31	85
	Private	5.81	0.74	47
	Total	5.56	1.15	132
Financial Situation Satisfaction*	Public	2.15	0.70	85
	Private	2.19	0.71	47
	Total	2.17	0.70	132

* *Financial situation: 5 = satisfied, 4 = fairly satisfied, 3 = neither satisfied nor dissatisfied, 2 = fairly dissatisfied, and 1 = dissatisfied.; Job Satisfaction and Family Satisfaction: 7 = completely satisfied, 6 = very satisfied, 5 = fairly satisfied, 4 = neither satisfied nor dissatisfied, 3 = fairly dissatisfied, 2 = very dissatisfied, and 1 = completely dissatisfied.*

The MANCOVA using Wilks' lambda performed on the three subscales' mean scores as dependent measures controlling the effect of the graduates' health condition indicated that the overall academic college type main effect on the long-term outcomes was significant, $\Lambda = .94$, $F(3, 127) = 2.79$, $p = .044$. The covariate, bachelors graduates' health, was also significantly related to their long-term outcomes, $\Lambda = .94$, $F(3, 127) = 7.57$, $p < .001$. Tests of between-subjects effects reveal that, controlling the effect of health situation, graduates with private university bachelor's degree were more significantly satisfied with their jobs ($F(1, 127) = 6.86$, $p = .010$, two tailed) and family ($F(1, 127) = 6.53$, $p = .020$, two tailed) than public university bachelor's degree holders. There was no significant difference in financial situation satisfaction between public and private graduates, $F(1, 127) = .44$, $p = .509$.

Discussion and Conclusions

This investigation used secondary data of the General Social Survey (NORC, 2012) to examine the differences in the long-term outcomes of job satisfaction, family satisfaction, and financial situation satisfaction between public and private higher education. We considered the role of the sample's health situation in possibly effecting their satisfaction level and controlled it for analysis. Results of this study revealed that bachelor's degree holders from private colleges are

significantly more satisfied with their job and family life than those from public colleges. The differences exist even when the effect of the bachelor graduates' health on these long-term outcomes was controlled. These results seem to support the notion that private college education is superior in educating students for life quality, being more satisfied in their career and family. This result could reveal the long existing differences in public and private higher education quality or education values. The benefits to an individual with a university education vary with the quality of the institution attended (Hill et al., 2005).

No significant difference was found in financial satisfaction between public and private college graduates. This finding possibly indicates (that) the narrowing trend in economic return gap between a public and private college education. If the tuition differential between private and public colleges continues to rise, the return rate of private investments in educational quality of private institutions' yields will gradually fall, but the return rate in private education should be at least equal to the return of investments in the quantity of education (Fox, 1993). This study result does not seem to be consistent with Monks (2000) research finding that the return on a college education is significantly higher for private colleges than it is for other institutions (Monks, 2000). If it is true that private colleges produce higher quality education, the earnings benefits and financial satisfaction of a college education do not necessarily depend on the quality of the college attended. In spite of no significant difference result in financial satisfaction, previous research findings revealed (that) strong evidence of economic return (Brewer, Eide, & Ehrenberg, 1999; Fox, 1993) and higher earnings from attending private institution (Hill et al., 2005). Therefore, in weighing the cost and value when students make their college choice decisions on public and private institutions, higher cost or investment for receiving private education might be worthwhile for the benefits of higher satisfaction in job and family in the long run.

Several limitations should be noted here. First, due to the limitations of the data set, the size of the sample was conveniently selected is not large enough for solid and broad generalizability. Second, the satisfaction of education outcomes was delimited to the graduates' perception on financial situation satisfaction, job satisfaction and family satisfaction, which would also affect the conceptual generalization of the findings. Third, other possible factors affecting the long-term education outcome satisfaction were not included for analysis to control their effects on the outcomes. Future research may focus on examining the long-term comprehensive outcomes by using a larger sample, or by tracking the same cohort of graduates in addition to including more factors in the analysis.

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