

Consumer Perceptions of the Value of Higher Education

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“The moral case for doing a better job of giving Americans the opportunity to succeed is very compelling. The economic case is just as strong. If more Americans are educated, more will be employed, their collective earnings will be greater, and the overall productivity of the American workforce will be higher.” – Treasury Secretary Timothy Geithner, March 15, 2012

Higher education plays a critical role in the US economy and there is a rich literature outlining the pecuniary returns and nonpecuniary benefits (see Oreopoulos & Salvanes, 2011) of attending higher education. However, there remains a deficient understanding of consumer valuations of higher education. This is why the current spotlight on the high cost of post-secondary education and debate on whether the cost is worth it warrants our attention. A 2012 report issued by the U.S. Department of the Treasury summarizes this well by stating:

“...a well-educated workforce is vital to our nation’s future economic growth. American companies and businesses require a highly skilled workforce to meet the demands of today’s increasingly competitive global economy. While postsecondary education has become increasingly important, there have also been growing concerns about the cost and affordability of higher education.”

Whether or not consumers believe that higher education continues to be worth the cost is of vital importance. If actual costs, or the perceived costs, of higher education begin to dissuade individuals from pursuing higher education, individuals and the economy as a whole will suffer. From a human capital theory (Becker, 1962, 1964) perspective, less education causes lower marginal productivities which result in lower wages to consumers and lower production for the economy as a whole.

Our objective is to analyze consumer perceptions of whether the financial benefits of higher education are worth the costs. Specifically, we examine which characteristics are associated with the perception that the costs are greater than the benefits. Understanding patterns in the perceptions of value can help identify which groups in the population are most likely to think education is not worth the costs. This understanding can help inform public policies designed to address labor market shortages of educated workers.

Method

Data

In this analysis, we utilized a nationally representative dataset, the Survey of Household Economics and Decisionmaking (SHED), to examine consumer perceptions of whether higher education is worth the costs. The SHED, sponsored by the Federal Reserve Board, is an annual survey that began in 2013 (Federal Reserve Board, 2016). The data collects information regarding the economic well-being and financial stability of U.S. households. Most of the data is cross sectional, but there is a panel feature to the data in which some respondents are interviewed in multiple waves. We currently are using the 2015 wave for analysis but the final version of this paper will use all three waves (2013, 2014, and 2015). We limit the sample to those who have a high school degree. Those without a high school degree or equivalent, in most cases, are not able to apply for post-secondary education. The final sample size is 5,263. This data from this survey is unique in that we are able to examine perceptions of value among a variety of different consumers, including those who (1) never attended college, (2) attended but did not complete, (3) completed college, and (4) are currently attending college.

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Dependent Variable

Several questions are asked of SHED respondents regarding the value of higher education investments, but slightly different questions are asked of respondents depending on their higher education attainment. We use the responses from three questions to construct a single binary indicator to distinguish respondents who thought the costs of higher education are larger than the benefits from respondents who thought the benefits are larger than the costs. The question given to current higher education students and graduates (Q1) asks:

“Overall, how would you say the lifetime financial benefits of your most recent educational program compares to its financial costs?

1. Financial benefits are much larger.
2. Financial benefits are somewhat larger.
3. About same financial benefits and financial costs.
4. Financial costs are somewhat larger.
5. Financial costs are much larger.”

From this question, a binary measure is created to distinguish those who thought the costs of higher education were somewhat or much larger (coded 1) from students who thought the benefits are equal to or greater than the costs (coded 0).

A second and third question asks respondents who did not attend higher education or did not complete higher education for the reason they chose not to attend (Q2) or drop out (Q3). Of the possible options, one is “Did not think benefits of attending college were worth the cost” and another is “Too expensive.” Therefore, among respondents who did not attend/complete higher education, if the reason for not attending/completing included that the benefits were not worth the costs or that higher education was too expensive, the respondent was coded as thinking that the costs of higher education are larger than the benefits (coded 1).

To summarize, the SHED data asks different questions of respondents depending on their educational attainment. We use these responses to create a single binary measure to categorize consumers as thinking that either the costs of higher education are larger than the benefits (coded 1) or that the benefits are larger than the costs (coded 0). As shown in Table 1, about 26% of the sample reports that higher education is not worth the cost. Of those who do not believe higher education is worth the cost, almost half have only a high school degree (45%) while 6% have a post-graduate degree.

Empirical Analysis

A binary probit regression model is used to determine which characteristics are associated with the perception that higher education is not worth the cost. Let Y indicate consumer perceptions of higher education and X represent a vector of explanatory variables (e.g., basic demographic characteristics). The binary probit regression model is shown in Eq. 1.

$$P(Y = 1|X) = \Phi(\beta_0 + X\beta) \quad (1)$$

where, Φ is the standard normal distribution.

In the final version of this paper, we will also examine each of the three questions separately which will allow a more detailed understanding of how each of the groups (current and former students, non-attenders, and non-completers) perceive the costs and benefits of higher education investments. As previously mentioned, longitudinal methods are possible with a subset of the SHED respondents. We will explore the feasibility of running fixed or random effects models with the longitudinal sample.

Preliminary Results

As shown in Table 2, results from the probit regression indicate that age, sex, education, owning a home, and income are all significantly related to the perception that higher education is not worth the cost. Specifically, older and female respondents are more likely to perceive that higher education is not worth the cost. Education, owning a home, and income are all negatively related to the perception that college

is not worth the cost. Education has the largest impact by far – compared to respondents with a high school education, respondents with some college, a bachelor’s degree, or a graduate/professional degree are about 10, 16, and 23 percentage points less likely, respectively, to think that college is not worth the cost. Homeowners are about 4 percentage points less likely than non-homeowners to think that college is not worth the cost. Compared to households earning between \$30,000 and 49,999 per year, households earning between \$50,000 and \$99,999 and more than \$100,000 per year are about 5 and 12 percentage points less likely, respectively, to think that college is not worth the cost.

Discussion

Encouraging investments in higher education is an important public policy goal because an educated workforce is critical to macro-economic growth in the U.S. The preliminary results of a nationally-representative dataset give some insight into characteristics associated with the perception that college is not worth the cost. Individuals who are female, do not own a home, and have lower education and income are more likely to perceive that college is not worth the cost. These findings are logical, if you feel that you are not getting ahead financially, then the expense of paying for higher education did not pay off.

The conclusion that higher education is not worth the cost by definition involves a valuation – policymakers should consider ways to make the benefits of higher education clear to subgroups in the population with lower valuations of higher education. The issue of affordability ought to also be addressed. Many people probably feel that higher education was not worth the cost because it wasn’t. If we want a well-educated and more productive workforce, investing in higher education should be prioritized.

Further Research

This research will be further extended by investing other characteristics that might impact these beliefs. More specifically, when investing the subgroup that completed higher education we will include student loan debt, year education was completed, confidence in skill level, and Carnegie Classifications™ (Public, Non-for-profit, For profit). For the subgroup that did not complete higher education, we will look at confidence in skills, household financial status, risk tolerance, and geographic region.

References

- Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5), 9-49. doi:10.2307/1829103
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago, IL: University of Chicago Press.
- Federal Reserve Board. (2016). Survey of Household Economics and Decisionmaking. Retrieved from <https://www.federalreserve.gov/consumerscommunities/shed.htm>
- Oreopoulos, P., & Salvanes, K. G. (2011). Priceless: The nonpecuniary benefits of schooling. *Journal of Economic Perspectives*, 25(1), 159-184. doi:10.1257/jep.25.1.159
- Remarks by Secretary Geithner before the Economic Club of New York <https://www.treasury.gov/press-center/press-releases/Pages/tg1452.aspx>
- U.S. Department of Treasury (2012). The Economics of Higher Education. Washington, D.C. https://www.treasury.gov/connect/blog/Documents/20121212_Economics%20of%20Higher%20Ed_vFINAL.pdf

Table 1
Sample Descriptive Statistics

	Full Sample (N=5,263)	Lifetime Financial Costs of College < Lifetime Financial Benefits (n=3,896)	Lifetime Financial Costs of College > Lifetime Financial Benefits (n=1,394)
	Proportion / Mean		
DV: Lifetime Financial Costs of College > Lifetime Financial Benefits	0.257	-	1.000
Age	47.153	48.050	44.554
Female	0.523	0.512	0.554
Race/Ethnicity			
White	0.664	0.670	0.647
Black	0.114	0.110	0.128
Hispanic	0.142	0.135	0.162
Other Race/Ethnicity	0.080	0.086	0.063
Region			
Midwest	0.216	0.211	0.230
Northeast	0.188	0.194	0.170
South	0.366	0.363	0.376
West	0.231	0.233	0.224
Education			
High School	0.316	0.271	0.447
Some College	0.352	0.355	0.342
Bachelor's Degree	0.197	0.214	0.149
Graduate or Professional Degree	0.135	0.160	0.063
First Generation	0.618	0.612	0.635
Marital Status			
Single	0.250	0.233	0.302
Married or Living with Partner	0.587	0.608	0.527
Previously Married	0.162	0.159	0.171
Homeowner	0.731	0.757	0.657
Working Status			
Working			
Self-Employed	0.060	0.062	0.053
Retired	0.178	0.193	0.133
Disabled	0.059	0.052	0.078
Unemployed	0.146	0.135	0.180
Income			
Less than \$30,000	0.196	0.173	0.262
Between \$30,000 and \$49,999	0.157	0.144	0.196
Between \$50,000 and \$99,999	0.324	0.324	0.323
Greater than or equal to \$100,000	0.323	0.359	0.219

Source: Weighted characteristics of respondents with at least a high school education in the 2015 SHED.

Table 2
Binary Probit Results: College is Not Worth the Cost

Variable (<i>N</i> =5,263)	Coef.	Std. Err.	<i>p</i> -value	AME
Constant	-0.401	(0.179)	0.026	
Age	0.028	(0.007)	<.001	0.008
Age-squared	0.000	(0.000)	<.001	0.000
Female	0.109	(0.039)	0.006	0.033
Race/Ethnicity (White)				
Black	-0.101	(0.067)	0.131	-0.030
Hispanic	-0.079	(0.066)	0.237	-0.024
Other Race/Ethnicity	-0.054	(0.081)	0.504	-0.016
Region (Midwest)				
Northeast	-0.099	(0.060)	0.100	-0.030
South	-0.062	(0.051)	0.224	-0.019
West	-0.025	(0.058)	0.658	-0.008
Education (High School)				
Some College	-0.323	(0.046)	<.001	-0.098
Bachelor's Degree	-0.537	(0.059)	<.001	-0.162
Graduate or Professional Degree	-0.766	(0.077)	<.001	-0.231
First Generation	-0.003	(0.042)	0.939	-0.001
Marital Status (Single)				
Married or Living with Partner	-0.094	(0.054)	0.082	-0.028
Previously Married	-0.038	(0.064)	0.548	-0.012
Homeowner	-0.134	(0.047)	0.004	-0.041
Working Status (Working)				
Self-Employed	-0.088	(0.084)	0.294	-0.027
Retired	-0.004	(0.070)	0.960	-0.001
Disabled	0.013	(0.074)	0.859	0.004
Unemployed	-0.004	(0.060)	0.940	-0.001
Income (Between \$30,000 and \$49,999)				
Less than \$30,000	0.037	(0.054)	0.499	0.011
Between \$50,000 and \$99,999	-0.152	(0.057)	0.007	-0.046
Greater than or equal to \$100,000	-0.403	(0.068)	<.001	-0.122
<i>Log likelihood</i>	-2816.457			
<i>Pseudo R-Squared</i>	0.074			

Source: Unweighted regression of respondents with at least a high school education in the 2015 SHED.