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Which U.S. Households Use Education Loans?

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By Chungwen Hsu and Patti J. Fisher

This empirical study uses the 2013 Survey of Consumer Finances (SCF) to investigate the characteristics of households that hold at least one loan for educational expenses. The benefit of using household-level data is that a single household may have education loans for multiple people in the household, including the household head, spouse/partner, and children. In studies of the education loan debt of individuals, the true effect on households may be overlooked. The present results show that the respondent's age, respondent's marital status, having at least one dependent child under the age of 18, net worth, home ownership, stock ownership, being retired, being Hispanic, and being in the "other" race/ethnicity group each have a negative relationship with the likelihood of holding education loans. In contrast, the respondent's education, having at least one dependent child who is 18-25 years of age, being a female, and being non-Hispanic Black have a positive relationship with the likelihood of holding education loans.

Keywords: *Education loans, student loans*

Contemporary higher education is very expensive and students often have to apply for loans to accomplish this goal. A generation ago, many students were able to finance their postsecondary education through a combination of their own and/or their family's resources along with available grant aid, but many of today's students must rely on loans to pay their tuition and other charges because grant aid is no longer sufficient to supplement their resources (Heller, 2008). As states have reduced their financial support of higher education, colleges and universities have increased tuition, reducing college affordability and shifting costs from states to students (Center on Budget and Policy Priorities, 2013). In addition to the knowledge and experiences learned during college, many students thus graduate with a heavy financial burden. A report from the Institute for College Access and Success (2014) indicates that 69% of graduating seniors at public and private nonprofit colleges had an average of $28,400 in student loan debt. In addition, a greater proportion of recent graduates have exceeded lender-recommended education loan borrowing levels than in the past (Harrast, 2004). For households in which both spouses have education loans and there are dependent children, this burden could be particularly high.

In the United States, federal student aid includes grants or scholarships, which do not have to be repaid; loans, which must be repaid; or work-study, which provides financial assistance in exchange for employment (Choy & Berker, 2003). More than half of all U.S. undergraduates received some form of financial aid to help pay for college (Berkner, Berker, Rooney, & Peter, 2002). For aid purposes, a student's financial need is defined as the price of attending minus the expected family contribution (EFC; Choy & Berker, 2003). The EFC is calculated using a federal formula based primarily on income and assets, and is not related to the

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price of attending. With access to student loans, middle-income families generally appeared able to bring the net price into line with the EFC, while their low-income counterparts were less likely to be able to do so. Sallie Mae (2015) reports that 22% of higher education costs were financed through both parent and student loans in 2015.

According to the College Board (2015), the average charge (including tuition and fees, and room and board) for undergraduates in public four-year in-state universities was $19,548 for the 2015-16 academic year, which is the lowest price among all types of four-year institutions. The maximum amount that dependent undergraduate students can borrow is $5,500 in Federal Direct Loans in their first year of study, and up to $6,500 in the second year, while the limit for the third year and beyond is $7,500 (College Board, 2013). Thus, colleges and universities provide supplemental loans to students and parents, with some borrowers obtaining multiple education loans and many parents taking out loans on behalf of their children. While the original goal of federal student aid policy was to increase college access for low-income families, as tuition increased the objective expanded to make college more affordable for middle-income families as well (Spencer, 1999).

College costs have never been higher or more difficult to manage, and as borrowing increases to meet these costs, many borrowers struggle to both pay off their loans and make ends meet every month (Duncan & Barnes, 2011; Heller, 2008). At the federal level, there has been great concern regarding education loan debt. The Obama Administration made a number of changes in the new "Pay as You Earn" proposal, including allowing consolidation of government loans, limiting the percentage of income required to be contributed to repayment to 10%, and erasing any remaining debt after the borrower repays for 25 years (U.S. Department of Education, 2011). With the recent recession, many parents have been forced to contribute less to college costs, a fact that raises the probability for their children to seek student aid (MailOnline, 2013). There has also been much concern about private loans, which are typically more expensive than government loans. Some graduates are unable to obtain jobs that pay enough for them to quickly repay their education loans. College debt reduces their ability to contribute to the economy by purchasing new goods and services.

Most research related to consumers' funding of higher education targets high school students or current college students and their parents (Cha, Weagley, & Reynolds, 2005; Kim, Chatterjee, & Kim 2012; Lee, Hanna, & Siregar, 1997; Tekleselassie, 2010; Todd & DeVaney, 1997; Yilmazer, 2008); however, few studies have examined the characteristics of education loan debt at the household level. The SCF data have been used to investigate student loans in a variety of ways. Shand (2007) examined the relationship between student debt and homeownership among households with a head-of-household or spouse/partner between 23 and 32 years of age. Hiltonsmith (2013) projected potential wealth losses caused by student debt among dual-headed households where both hold bachelors' degrees from four-year universities, and Elliott and Nam (2013) investigated whether student loans are associated with household net worth among those who graduated from a four-year college and have outstanding student loans. Fry (2014b) presented an economic and demographic portrait of households headed by persons younger than 40 who owe student debt.

With the increasing cost of tuition and stagnant grant-based student aid, many young adults are relying on parental resources and student loans to pay for higher education (Houle, 2013). However, there is limited research focusing on the impacts of education loan debt at the household level. The purpose of this study is to empirically investigate, using 2013 SFC data, the characteristics of households that carry student loan debt, with a focus on the entire household rather than on the individual. The benefit of using household-level data is that a single household may have education loans for multiple people in the household, including the household head, spouse/partner, and/or children. In studies focused on the education loan debt of individuals rather than all family members, the true effect on households may thus be overlooked. This study will contribute to the closing gaps in the literature by providing information about characteristics

associated with carrying education loan debt at the household level, and the types of households that may be at a significant disadvantage. The evidence could offer implications for financial aid practitioners, financial professionals, and student borrowers and their parents.

Conceptual Framework

The conceptual framework for the current study is based on the life cycle hypothesis. This hypothesis holds that in order to smooth or level consumption over the life course, the individual or household borrows when young to invest in education or human capital (Ando & Modigliani, 1963). Individuals then become workers during the middle years, earning regular income and accumulating wealth while repaying debts and saving for retirement. During retirement, individuals spend down the wealth they accumulated during their working years (Ando & Modigliani, 1963).

Parents are important contributors to children's higher education (Churaman, 1992). They are assumed to be concerned about their children's future economic well-being and choose to finance a portion of the expenditures associated with their children's education to maximize that well-being (Becker & Tomes, 1979, 1986; Catsiapis & Robinson, 1981). According to the life cycle hypothesis on education, individuals (and/or their parents) borrow for college when the individuals are young. Some borrowers earn a college degree, while some may not. After individuals begin working, they start accumulating wealth and repaying their education loan debts; meanwhile, they may get married and become parents. When their dependent children are at the traditional college age of 18-25 years, some children must finance their college expenses like their parent(s) and some do not, which is primarily based on the household's net worth and preferences. If the student financial aid package given to students is insufficient, parents may also apply for parent loans to help finance their children's college expenses. The parent loan debts may be paid off before or during retirement.

Literature Review

Life Cycle Variables

The life cycle variables included age, marital status, dependent children, and net worth. Kim et al. (2012) indicated that among adults aged 18 to 25 years, those who were older were more likely to have a greater amount of student loans; however, marital status had no impact on the amount borrowed. The relationship between the number of children in a family and the likelihood of parental support of students in college was negative (Cha et al., 2005; Steelman & Powell, 1989, 1991). Conley (1999) noted that paying for college is something done primarily with assets rather than income.

Socioeconomic and Control Variables

Cha et al. (2005) explored parents' decisions to take out loans to pay for their children's college costs, and found a significant difference in parents' highest level of education between parent loan borrowers and non-borrowers. Mortenson (1988) also indicated that families with more highly educated parents were more likely to be willing to incur debt to finance college expenses. Lee et al. (1997) also found that better educated parents were more likely to have college saving as a goal than otherwise similar, less educated parents, which means that children with better educated parents are more likely to go to college and apply for loans to supplement the deficits. Kim et al. (2012) found that completion of college was positively associated with the amount of student loan holdings of young adults aged 18 to 25 years. Although higher levels of education correlate with the use of loans for education, an area neglected by researchers is related to students who begin a postsecondary education and take out student loans, but fail to complete a degree

(Heller, 2008). González Canché (2014) found that similar two- and four-year students who obtained a bachelor's degree had similar levels of debt and repayment; however, among those who did *not* complete a bachelor's degree, initial four-year entrants had higher loan debt than two-year students. These individuals are at a particular disadvantage because they may incur significant levels of debt without attaining the labor market and other benefits of a degree.

According to the 2011 American Community Survey (ACS), 71.6% of students enrolled in college and 82.4% of students enrolled in graduate or professional school were working (Davis, 2012). When the in-college student loan borrowers were employed, they tended to have lower student loan debt (Kim et al., 2012).

According to the U.S. Census Bureau (2015), young women aged 25 to 29 years have had higher college attainment rates than young men since 1996, and 2014 is the first year that women's college attainment is statistically higher than men's college attainment (29.9% of men vs. 30.2% of women). The higher college attainment rates for women also increase the education loan borrowing rate. For the class of 2011-12, female graduates (71%) were more likely to borrow than male graduates (67%), and female graduates owed 58% of the total debt held by the class by 2011-12 (Fry, 2014a). Kim et al. (2012) pointed out that being female is positively associated with the amount of student loan holdings of respondents.

Robert Wood Johnson Foundation (2013) pointed out the positive link between education attainment and health status, including life expectancy. The results indicate that healthier individuals are more likely to go to college and to borrow for education. However, many of the one in three education loan borrowers facing extreme difficulty with repayment have been laden with anger, frustration, and regret according to the complaints to the Consumer Financial Protection Bureau (CFPB; Center for Retirement Research at Boston College, 2015). According to a survey conducted by the American Association of Retired Persons (AARP; 2008), 20% of people 45 years and older reported health problems due to financial stress. This financial distress can cause mental stress, which results in physical illness and shorter life expectancy.

The United States' system of higher education assumes that the individual or family will contribute toward meeting college expenses (Steelman & Powell, 1989), even among the lowest income brackets (Miller, 1985; Olson & Rosenfeld, 1984). For college students, Kim et al. (2012) found that income was positively associated with the amount of student loan holdings. For parents, Steelman and Powell (1991) noted that parents' reported willingness and ability to pay for higher education were first affected by total income; however, Cha et al. (2005) pointed out that parental income was not significantly different between borrowers and non-borrowers. Middle- and upper-income students are more likely than lower-income students to utilize student loans because of the loan aversion of the latter group (Campaigne & Hossler, 1998). Mortenson (1988) found that higher-income families were more likely than lower-income families to be willing to incur debt to finance college. In contrast, Houle (2013) found that young adults from middle-income families were at greater risk of debt than those from low- and high-income families. According to Burdman (2005), the need to borrow for education is an impediment that hits low-income and minority families in particular. Hillman (2013) found that the introduction of policies at institutions where loans were removed from low-income students' financial aid packages positively impacted low-income enrollments.

Some minority groups are less likely than others to name student loans as a source of financing higher education, indicating an information deficit about financial aid (Tomás Rivera Policy Institute, 2004). Charles, Roscigno, and Torres (2007) found that parents of minority groups had less knowledge of alternative sources of funding for college, such as loans, grants, and scholarships. Other studies have shown that some minority groups are more likely to save for education, reducing the need to borrow. Lee et al. (1997) found that Asian and Hispanic parents were more likely to have college saving as a goal than similar non-Hispanic White parents. Similarly, Fisher and Hsu (2012) found that Hispanics were more likely than

non-Hispanic Whites to report saving for education as a motive over the previous year. The evidence indicates that there are cultural differences among students and families from different groups in knowledge of funding sources (Charles et al., 2007; Tomás Rivera Policy Institute, 2004), willingness to incur debt to finance postsecondary education (Heller, 2008), and the behavior of saving for college (Fisher & Hsu, 2012; Lee et al., 1997). Heller (2008) found that African American and Hispanic students tended to be more indebted than White students. Kim et al. (2012) found that White young adults ages 18 to 25 were less likely to have greater amounts of student loans.

According to the American Institute of CPAs (2013), 29% of respondents reported that they had postponed home purchases because of monthly student loan payments. In past National Student Loan Surveys, the debt level of student loan borrowers was found to have no impact on the probability of home ownership; however, in 2002, the findings showed that, all else being equal, an additional $5,000 in student loans reduced the probability of home ownership by about 1% (Baum & O'Malley, 2003). The amount of education loans borrowed by parents increased with home equity (Cha et al., 2005). Kim et al. (2012) found that the ownership of stock among respondents in college was negatively associated with the student loan amount. Davies and Lea (1995) indicated that college students appeared to increase debt tolerance after they became indebted, and higher levels of debt were related to higher debt tolerance attitudes.

Based on the conceptual framework and review of the literature, we proposed two research: (a) What characteristics are significantly different for households that hold education loans and those that do not? and (b) Which household characteristics are associated with the use of loans to finance education?

Methodology

Data and Sample

The data for this study came from a nationally representative data set, the 2013 Survey of Consumer Finances (SCF). Data for the SCF are collected by the National Organization for Research at the University of Chicago (NORC). The data collected were based on the "primary economic unit" (PEU), which is an economically dominant single individual or couple (married or cohabiting) in a household with other individuals in the household who are financially interdependent with the PEU (Kennickell, 2014).

The 2013 SCF was based on a dual-frame sample design. One set of survey cases was selected from a standard multi-stage area-probability design; the other set of survey cases was selected from a list sample from statistical records (the Individual Research Tax File) derived from tax data by the Statistics of Income Division of the Internal Revenue Service (Kennickell, 2014). The area-probability sample was a geographically based random sample intended to provide good coverage of assets broadly distributed in the population, such as home ownership. The list sample was a supplemental sample that disproportionately includes wealthy families that hold a relatively large share of less commonly held assets, such as non-corporate businesses and tax-exempt bonds.

To correct for missing data, multiple imputations were performed, resulting in five implicates of the public dataset. We used all five implicates in the repeated imputation inference (RII) method to estimate weighted descriptive means of the continuous variables and frequencies. Detailed descriptions of the RII scalar estimation method and RII regression method are provided in Montalto and Sung (1996).

Dependent Variable

The dependent variable was dichotomous, where 1 indicated that the household currently had loans for educational expenses, and 0 indicated that there were no such loans. Thus, the dependent variable included education-related loans for all household members.

Independent Variables

The independent variables included life cycle factors (age, marital status, presence of at least one dependent child who is less than 18 years of age, presence of at least one dependent child who is 18-25 years of age, and net worth), and factors identified in the literature as having a relationship with holding education loans: education level, employment status, income, health status, life expectancy, gender, race/ethnicity, home ownership, stock ownership, and risk tolerance (as a proxy for loan aversion).

For the life cycle variables, we used dummy variables for age of the respondent (18-24 years—reference category, 25-34 years, 35-44 years, 45-54 years, 55-64 years, and 65 years and older); marital status (married/partnered—reference category, separated/divorced, widowed, and never married), having at least one dependent child who is less than 18 years of age; and having at least one dependent child who is 18-25 years of age. We included net worth as a continuous variable.

For the socioeconomic and control variables, we used dummy variables for the education level of the household head (high school diploma or less—reference category, some college, and college graduate or higher); employment status (not employed, which includes unemployed and looking for work and students—reference category, working/self-employed, and retired); and income ($20,000 or less—reference category, $20,001-$36,500, $36,501-$60,000, $60,001-$101,500, $101,501 or higher). We measured the self-reported health condition of respondents by the question, "Would you say your health is excellent, good, fair, or poor?" The reference category was good to excellent health, with dummy variables included for fair health and poor health. We included life expectancy as a continuous variable reported by respondents.

Dummy variables were used for female respondent; race/ethnicity (non-Hispanic White—reference category, non-Hispanic Black, Hispanic, and Other); homeownership; and stock ownership. We measured the risk tolerance of respondents by the question, "Which of the statements on this page comes closest to the amount of financial risk that you (and your {husband/wife/partner}) are willing to take when you save or make investments?" The reference category was average risk tolerance (take average financial risks expecting to earn average returns), with dummy variables included for low risk tolerance (not willing to take any financial risks) and high risk tolerance (take above-average financial risks expecting to earn above-average returns category combined with take substantial financial risks expecting to earn substantial returns category).

Results

Descriptive Statistics

The sample included a total of 5,280 households. The descriptive statistics for the total sample are reported in Table 1. Nearly one in five (19.9%) households had at least one education loan. For the age distribution, 5% of respondents were 18-24 years, 15.8% were 25-34 years, 17.3% were 35-44 years, 19.6% were 45-54 years, 18.7% were 55-64 years, and 23.6% were 65 years or older. About one-third (31.2%) of respondents were separated or divorced, followed by 26% who were married or living with a partner, 8.3% who were never married, and 1.3% who were widowed. More than one-third (35.5%) of households had at least one dependent child below the age of 18 years, and 12.8% of households had at least one dependent child between ages 18 and 25. The sample had a mean net worth of $528,422.

Table 1. Measurement and Weighted Descriptive Statistics of Education Loan Borrowers in the 2013 SCF

Variable	Total Sample *n*=5,280	Have Loan *n*=1,052	No Loan *n*=4,228
	Mean (*SD*) or Frequency %		
Dependent Variable			
Educational Loan	19.92%	100%	0%
Independent Variables			
Life Cycle Variables			
Age***	51.2 years	39.3 years	54.1 years
18-24 Years (ref) ***	5.00%	9.84%	3.80%
25-34 Years***	15.76%	33.34%	11.39%
35-44 Years***	17.28%	24.85%	15.40%
45-54 Years	19.63%	18.17%	20.00%
55-64 Years***	18.74%	11.29%	20.59%
65 Years or Older***	23.59%	2.51%	28.84%
Marital Status			
Married/Partnered (ref) ***	25.97%	62.27%	55.88%
Separated/Divorced*	31.18%	14.54%	17.68%
Widowed***	1.27%	1.53%	11.26%
Never Married***	8.28%	21.67%	15.19%
Dependent(s) < 18 Years***	35.52%	49.83%	31.96%
Dependent(s) 18-25 Years***	12.77%	18.18%	11.42%
Net Worth***	$528,422	$143,955	$624,070
Socioeconomic and Control Variables			
Education			
High School or Less (ref)***	42.29%	22.11%	47.31%
Some College***	18.98%	23.49%	17.80%
College Graduate or Higher ***	38.78%	54.40%	34.90%
Employment			
Not Employed (ref)	16.71%	17.60%	16.49%
Working/Self-employed***	61.86%	79.12%	57.57%
Retired***	21.43%	3.28%	25.94%
Income***	$86,764	$70,937	$90,702
$20,000 or Less (ref) *	18.70%	16.23%	19.32%
$20,001-$36,500*	20.49%	17.78%	21.16%
$36,501-$60,000	21.02%	22.07%	20.76%
$60,001-$101,500**	19.28%	22.54%	18.48%
$101,501 or Higher	20.51%	21.39%	20.29%
Health status			
Good/Excellent (ref) ***	72.67%	81.69%	70.43%
Fair***	21.02%	15.24%	22.46%
Poor***	6.30%	3.07%	7.11%
Life Expectancy***	83.6 years	83.4 years	83.7 years
Gender	28.42%	28.17%	28.48%
Race/Ethnicity			
Non-Hispanic White (ref)***	67.96%	62.51%	69.32%
Non-Hispanic Black***	14.28%	22.71%	12.18%
Hispanic**	13.29%	10.81%	13.91%
Other	4.47%	3.97%	4.59%
Own Home***	65.15%	52.61%	68.27%
Own Stock***	13.75%	10.03%	14.67%
Risk Tolerance			
Low Risk Tolerance ***	46.61%	36.72%	49.07%
Average Risk Tolerance (ref)***	36.31%	43.02%	34.64%
High Risk Tolerance**	17.09%	20.26%	16.30%

Note. Significant group difference indicated by *p<.05; ** p<.01; *** p<.001.

About 42.3% of respondents held a high school diploma or less, while about 19% had some college and 38.8% were college graduates or higher. Close to two-thirds (61.9%) of respondents were working or self-employed, followed by 21.4% who were retired, and 16.7% who were not employed, unemployed and looking for work, or students. About 18.7% of households had an income of $20,000 or less, with 20.5% in the $20,001-$36,500 category, 21% in the $36,501-$60,000 category, 19.3% in the $60,001-$101,500 category, and 20.5% with an income of $101,501 or higher. About three in four (72.7%) respondents rated their health as good or excellent, with 21% and 6.3% reporting to be in fair and poor health, respectively. The average life expectancy of respondents was 83.6 years. About 28.4% of respondents were female. More than two-thirds (68%) of respondents were non-Hispanic White, while 14.3% were non-Hispanic Black, 13.3% were Hispanic, and 4.5% were in the Other race/ethnicity category. Close to two-thirds (65.2%) of respondents were homeowners, and only 13.8% owned stocks. About 46.6% of households were categorized as having low risk tolerance, with about 36.3% and 17.1% for the average and high risk-tolerance groups, respectively.

Almost all of the life cycle variables in the model differed significantly for the two groups (those that held education loans and those that did not). The group without education loans had a significantly higher age. With the exception of the age category of 45-54 years, all age categories differed significantly for the two groups. There were significantly higher percentages of individuals aged 18-44 years in the education loan group than in the no-loan group, while there were significantly lower percentages of individuals aged 55 years or older in the education loan group than in the no-loan group. There were significantly higher percentages of married couples and never-married individuals in the education loan group than in the no-loan group, while there were significantly lower percentages of separated/divorced and widowed individuals in the education loan group. A significantly greater proportion of households with an education loan had children less than 18 years of age in the household. A significantly greater proportion of the education loan households also had at least one dependent child between the ages of 18 and 25 years. The education loan group had a significantly lower average net worth than the no-loan group, with mean net worth of $143,955 as compared with a mean of $624,070 for the no-loan group.

Most of the socioeconomic and control variables in the model differed significantly for the two groups. About one-quarter (22.1%) of the group with loans were in the high school diploma or less group, while about half (47.3%) of the no-loan group were in this category. About 79.1% of respondents in the education loan group were working, while 57.6% of the no-loan group were working. About one-quarter of the no-loan group were retired (25.9%) as compared with only 3.3% of the education-loan group. The education loan group had a significantly lower average income. The income brackets of $20,000 or less and $20,000-$36,500 had significantly lower percentages in the education loan group than in the no-loan group, while there were significantly higher percentages of households in the $60,001-$101,500 income bracket in the education loan group than in the no-loan group. A greater proportion of the group with education loans were in the good/excellent health group, although this group had a significantly lower average life expectancy.

The race/ethnicity distributions in the two groups differed significantly. Only households with a non-Hispanic Black respondent had a greater proportion in the loan group, while the other three groups had greater proportions in the no education loan group. A significantly greater proportion of the no-loan group owned a home and owned stock as compared with the education loan group. About one-third (36.7%) of the education loan group had low risk tolerance, as compared with about half of the no-loan group (49.1%). About 20.3% of the education loan group had high risk tolerance, while about 16.3% of the no-loan group had high risk tolerance.

Logistic Regression Results

Table 2 shows the results of the logistic regression model. Having a dependent child between the ages of 18 and 25 years, having attended some college, being a college graduate or higher, being female, and being non-Hispanic Black were significant and had a positive relationship with the likelihood of holding at least one education loan. The following variables had a significantly negative relationship with the likelihood of holding education loans: being in the 35 years or older group; being separated/divorced, widowed, or never married; having a dependent child less than 18 years old; greater net worth; retirement; being in the Hispanic or Other race/ethnicity group; home ownership; and stock ownership.

Table 2. Logistic Regression Results of Education Loan Borrowers in the 2013 SCF

Variable	(*N*=5,280) Parameter Estimate	Odds Ratio
Intercept	-0.479	
Age		
25-34 Years	-0.010	1.00
35-44 Years***	-0.766	0.46
45-54 Years***	-1.619	0.20
55-64 Years***	-1.970	0.14
65 Years or Older***	-3.236	0.04
Marital Status		
Separated/Divorced***	-0.731	0.48
Widowed**	-0.986	0.37
Never Married***	-1.039	0.35
Dependent Child <18 *	-0.187	0.83
Dependent Child 18-25***	0.932	2.54
Net Worth***	-0.070	0.93
Education		
Some College***	1.021	2.76
College Graduate or Higher ***	1.398	4.05
Employment		
Working/Self-Employed	-0.036	0.96
Retired*	-0.498	0.61
Income		
$20,001-$36,500	-0.165	0.85
$36,501-$60,000	0.017	1.02
$60,001-$101,500	0.117	1.12
$101,501 or higher	0.122	1.13
Health Status		
Fair	-0.229	0.80
Poor	-0.023	0.98
Life Expectancy	-0.001	1.00
Gender (Female) ***	0.536	1.71
Race/Ethnicity		
Non-Hispanic Black***	0.746	2.11
Hispanic *	-0.387	0.68
Other**	-0.556	0.57
Own Home**	-0.315	0.73
Own Stock***	-0.493	0.61
Risk Tolerance		
Low Risk Tolerance	-0.159	0.85
High Risk Tolerance	-0.118	0.89

Note. *p<.05; ** p<.01; *** p<.001.

The odds of respondents aged 35-44 years having an education loan were 0.5 times that of households aged 18-24 years, with odds of 0.20, 0.14, and 0.04 for the 45-54 year, 55-64 year, and 65 and older age groups, respectively. Separated or divorced respondents had odds of having an education loan that were 0.5 times that of married/partnered households, with odds of 0.4 for widowed respondents and 0.4 for never married respondents. Having a dependent child less than 18 years old was associated with odds of having an education loan that were 0.8 times that of households without a dependent child less than 18 years old. Households with a dependent child between the ages of 18 and 25 years had odds of having an education loan that were 2.5 times that of households without a dependent child in that age range.

The odds of having an education loan were 2.8 and 4.1 times greater for households with a respondent who had some college or a college degree, respectively, as compared with households whose respondent had a high school diploma or less. Households with a retired respondent had odds of having an education loan that were 0.6 times that of households with a respondent who was not employed. Female respondents had odds of having an education loan that were 1.7 times that of male respondents. Households with a non-Hispanic Black respondent had odds of having an education loan that were 2.1 times that of households with a non-Hispanic White respondent, while households with a Hispanic respondent had odds that were 0.7 times that of White households. Households with a respondent in the Other race/ethnicity category had odds of having an education loan that were 0.6 times that of households with a non-Hispanic White respondent. Owning a home and holding stock decreased the likelihood of having an education loan, with odds of having an education loan for homeowners and stock owners being 0.7 and 0.6 times that of households not owning a home and not holding stock, respectively.

Discussion

The purpose of this study was to explore factors that are associated with households' use of loans to finance education. Several factors included in the model to explain education loan borrowing were found to be significant. Compared to respondents aged 18-24 years, those aged 35 years or older were less likely to hold education loans. It is possible that the loans have been paid off or that postsecondary education was more affordable for the older generations. Households with a dependent child who was 18-25 years old were significantly more likely to have an education loan. The general age for college attendance is 18-25 years, so it is not surprising that households with a dependent child in this age range are more likely to borrow for education. Households with at least one dependent child under the age of 18 were significantly less likely to have an education loan, possibly because any loans of the parents had been paid off.

As compared with married respondents, respondents who were separated/divorced, widowed, or never married were less likely to hold education loans. This is an interesting finding that could be explored in future research. Compared to households with a respondent who had a high school diploma or less, those with a head who had some college or who were a college graduate were more likely to hold education loans. This was expected because education loans are designed to help fund postsecondary education, so some of the loans held by a household are likely for the respondent. These results are somewhat consistent with the study by Kim et al. (2012) indicating that completion of college was positively associated with the amount of student loan holdings. Interestingly, nearly one-quarter of households in which the respondent had a high school diploma or less did hold at least one education loan, indicating that the loans are for other family members who live in the same household or education loans for parents to finance their children's education. The present results show that, as compared with those who are not employed, retirees are less likely to hold education loans. It is interesting that some households carry education loan debt into their retirement years, because the life cycle hypothesis expects that the individual or household will repay all debts by retirement (Ando & Modigliani, 1963). It would be interesting to investigate those households that carry education loans into retirement.

Respondents with greater net worth were less likely to hold education loans, which is likely because they had more financial resources to fund their own education as well as that of their dependents. Homeownership had a significantly negative relationship with the probability of education loan holdings, which is in contrast to the results of the National Student Loan Surveys indicating that home ownership and having an education loan are not significantly related (Baum & O'Malley, 2003). Stock ownership was negatively associated with education loan ownership, supporting the findings of Kim et al. (2012). However, the result for income is inconsistent with previous studies showing that income is not related to education loan borrowing (Burdman, 2005; Campaigne & Hossler, 1998; Kim et al., 2012; Steelman & Powell, 1991). The above results echo Conley's (1999) research: paying for college is something done primarily with assets rather than income.

Female respondents were significantly more likely to have an education loan than male respondents, supporting the results of Kim et al. (2012). Race/ethnicity was also found to be significantly associated with education loan holdings. As compared with non-Hispanic Whites, non-Hispanic Blacks were more likely to hold at least one education loan, while Hispanics and Other race/ethnicities were less likely to have this kind of debt. The results partially support the findings of the Tomás Rivera Policy Institute (2004) and Heller (2008) regarding knowledge of funding sources and willingness to incur debt to finance postsecondary education. Lee et al. (1997) and Fisher and Hsu (2012) found that Asian and Hispanic parents were more likely to save for children's college, which may decrease the need to finance a child's education.

One limitation of the current study is that, on average, respondents in the SCF sample had higher incomes than that reported in the Census Bureau's Current Population Survey (CPS; Board of Governors of the Federal Reserve System, 2012). We also lack information on who each education loan is for, so the link between the independent variable for education and the dependent variable for having at least one education loan requires further exploration. However, because education loans are related to parents and dependent children in the same household who are financially interdependent, the limitation of not knowing which individual each education loan is for does not change the burden of the debt.

Based on the results of this study, future studies could focus on the factors associated with the number of loans held by a household and the total amount owed on all remaining loans. Researchers could also explore racial/ethnic differences in the likelihood of holding student loan debt, as the current results and previous studies indicate that significant racial/ethnic differences exist. Future researchers could also explore households in which the respondent and spouse have a high school education but hold education loans, which would presumably be for their children, but not themselves. Future researchers exploring household, rather than individual, use of education loans could collect data to capture more information on education loans within the household.

Conclusions

The results of the present study provide support for the life cycle framework in investigating education loan use. These findings suggest that age, marital status, having at least one dependent child under the age of 18, having at least one dependent child who is 18-25 years, education level, being retired, being female, race/ethnicity, and financial resources (i.e., net worth, home ownership, and stock ownership) are important variables related to holding education loan debt. The current system does not seem to be supporting lower-income households in terms of grants and non-loan forms of financial aid, as net worth, home ownership, and stock ownership all have a negative relationship with having education loans. Having to repay education loans places another burden on households with fewer financial resources.

Nexus: Connecting Research to Practice

- Financial aid administrators should be aware of challenges faced by parents who are still repaying their own education loans at the time their children are preparing to enroll in college. Helping families with more than one education loan manage their debts could be another service provided by financial aid administrators.
- Net worth, home ownership, and stock ownership all have a negative relationship with having education loans. Future studies could explore which assets affect decisions related to financing higher education.
- Our results combined with previous studies indicate that significant racial/ethnic and gender differences exist in the likelihood of holding student loan debt. Future researchers should continue to explore these differences. Financial aid administrators should be aware of how these differences may play out at their institutions.
- Our findings show that some borrowers are now repaying student loans into retirement. Additional study on the impact of student loan debt on retirees, as well as its overall impact on household financial strength may be useful.

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