Student Loan Debt and Financial Hardship among Young Adults

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Young adults are increasingly burdened with student loan debt. It is timely and important to examine how student loan debt influences their already vulnerable financial status. Is there a relationship between student loan debt and financial hardship among young adults? Do white young adults and minority young adults have different experiences in student loan debt and financial hardship? Analyzing data from the 2015 National Financial Capacity Study, the study results show that student loan debt was negatively related to several measures of financial hardship: difficulty in paying bills, difficulty in meeting health care needs, and delay in the payment of home mortgage. After controlling for a range of socioeconomic factors and financial literacy, minority young adults were more likely to experience financial hardship than their white counterparts. In addition, it appears that student loan debt had additional negative impact on late payment of home mortgage among minority young adults. Policy and practice implications are discussed.

Keywords: *financial hardship, financial literacy, race, student loan debt, young adults*

Race, Student Loan Debt, and Financial Hardship among Young Adults

The rising student loan debt in the last decades (Institute for College Access and Success, 2015; Payea, Baum, & Kurose, 2013) has raised serious concerns regarding its consequences on the financial well-being of loan holders. Evidence shows that the burden of education loans is particularly prominent among the households headed by young adults; for example, over 40 percent of all households headed by individuals younger than age 35 have outstanding student debts (Fry, 2012; Ratcliffe & McKernan, 2013). Even more concerning is that many young adult borrowers are heavily burdened with student loans (Fry, Parker, &

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Rohal, 2014), and they face great challenges in repaying their debts. For example, reported numbers of loan delinquency, loan default, and bankruptcy among borrowers have sharply increased in recent years (Brown, Haughwout, Lee, Scally, & van der Klaauw, 2014; Gicheva & Thompson, 2015). As such, young adults with student loan debts are more likely to face additional financial challenges, especially given the fact that they are already financially vulnerable (Emmons, 2012; Steuerle, McKernan, Ratcliffe, & Zhang, 2013), compared to other age groups.

Along with the widespread student loan burdens among young adults, inequality in financial well-being has also widened across age groups. Young adults were already falling behind before the economic recession in 2009, and they were among the hardest hit by the same (Emmons, 2012; Steuerle et al., 2013). As an example, the average net worth of a household headed by a person aged under 35 years was nearly 50 times less than that of a household headed by someone aged 65 or older right after the economic recession (Taylor et al., 2011). The financial vulnerability among young adults was also reflected in other indicators. A recent study (Karpman, Zuckerman, & Gonzalez, 2018) reported that young adults (18–34) were more likely (43 percent) to experience material hardship, which was measured as having difficulty in meeting basic needs, including housing, food, utilities, and health care needs, than the other two age groups (40 percent for those aged between 35 and 49 years, and 34 percent for those aged between 50 and 64 years).

As such, emerging studies have examined how education loans are related to young adults' financial well-being, including earning capacity (e.g., Hiltonsmith, 2013) and various indicators of wealth accumulation, such as home and vehicle ownership and value of net worth (e.g., Zhan & Xiang, 2018). However, limited research has explored how student loan is related to financial hardship among young adults, and how such impact might differ between white, non-Hispanic (referred to as "white young adults") and all others (referred to as "minority young adults" in this study). Here, we explore two major research questions. First, are student loan debts and race associated with measures of financial hardship among young adults? Second, is the association between student loan debt and financial hardship different between white young adults and minority young adults? We hypothesize that having student loan debts is negatively related to financial hardship among young adults because the presence of student loans may cause budget constraints and financial stress. We also hypothesize that student loan debt may pose greater risks for minority borrowers because of their already vulnerable socioeconomic status, compared to their white counterparts.

This research builds on current literature in several important ways. First, while studies started examining the impact of student loans on income and wealth accumulation among young adults (Fry et al., 2014; Hiltonsmith, 2013; Zhan, Xiang, & Elliott, 2016), how student loan debt is related to financial hardship has received little attention. As a measure of ability to meet basic needs, financial hardships are also influenced by other factors, in addition to income and wealth (Heflin, Sandberg, & Rafail, 2009). Thus, financial hardship provides a more direct and broader assessment of young adults' financial status.

Second, previous research has not explored whether the associations of student loans with financial hardship are different for white young adults and minority young adults. Such variations could be attributed to higher levels of loan burden, less availability of parental economic support, lower graduation rate, and higher rate of unemployment among minority young adults (Baum & Steele, 2010; Kerby, 2013). Investigating possible differential links between student loans and financial hardship among white young adults and minority young adults helps develop more targeted policies and practices to address issues of financial hardship.

Third, this study includes several measures of financial hardships: difficulty in paying bills/covering expenses; difficulty in meeting health care needs (including unpaid medical bills, skipped prescription and medical appointment due to costs), and being late on home mortgage and student loan payments. These measures capture multiple dimensions of financial hardship, which allows a thorough examination of financial hardship among young adults.

And finally, in addition to socioeconomic factors, this study also incorporates several other covariates that may have an important influence on financial hardship, including financial literacy, health insurance coverage, and availability of emergency funds. The inclusion of these variables helps better understand the unique contribution of student loan debt and race to financial hardship among young adults.

Prior Scholarship

Rationale

Student loan debt may be related to financial hardship by imposing budget constraints and financial stress among young adults. Evidence shows that among young adults (under the age of 40), debt from student loans is associated with the likelihood of having other types of debt, and the total debt among college-educated young households is nearly twice that of their counterparts without student loan debt, and the gap is even sharper among less-educated households (Fry et al., 2014). Burdened with heavy debt, a study finds that over 40 percent of student loan holders have been delinquent on their loan or have defaulted on it (Cunningham & Kienzl, 2011), and minority loan borrowers have even higher default rates (Kerby, 2013). Among all consumer debt products, delinquency rate was the highest for student loans (Sanchez & Zhu, 2015). As such, student loans pose serious financial constraints among borrowers. For example, the median debt-to-income ratio among college graduates with debt from loans was as high as 205 percent (compared to 108 percent among their counterparts without education loans) (Mishory & O'Sullivan, 2012). It was not surprising that student loan was linked to higher levels of financial stress and anxiety (Andruska, Hogarth, Fletcher, Forbes, & Wohlgemuth, 2014; Archuleta, Dale, & Spann, 2013; Heckman, Lim, & Montalto, 2014).

The budget constraints and financial stress experienced by minority loan holders may be disproportionately higher. First of all, evidence shows that minority students are more likely to take loans to finance college expenses. They also report greater difficulties with and concerns about repayment (Baum & O'Malley, 2003; Ratcliffe & McKernan, 2013). For example, researchers consistently found that minority students were more likely to default than their white peers (Cho, Xu, & Kiss, 2015). Second, due to racial and ethnic disparities in income and assets (e.g., Bricker, Kennickell, Moore, & Sabelhaus, 2012; Kochhar, Fry, & Taylor, 2011), young adults from minority families are less likely to receive financial support from their parents. The survey by Sallie Mae (2016) indicated that during the academic year 2015–2016, in general, parent income and savings funded 29 percent of college costs; however, there is evidence that higher income, college education, and white parents were more likely to help pay for their children's college education (Cha, Weagley, & Reynolds, 2005; Houle, 2014; McCabe & Jackson, 2016). Third, studies indicate that minority students receive less of an economic return from their college education than do their white counterparts (e.g., Crissey, 2009). For example, black college graduates were mostly likely to be unemployed in 2013 (Jones & Schmitt, 2014), and the risk of losing a job during an economic recession is greater for them as well (Austin, 2009). Therefore, student loans could pose greater risks for these borrowers.

Empirical Evidence: Student Loan Debt and Financial Well-Being

Student Loans and Wealth

Existing studies have examined how student loan debt is related to different indicators of postcollege financial well-being. Studies consistently report that having student loans compromises various indicators of wealth accumulation, both short term and long term. An analysis of the Survey of Consumer Finances indicates that average net worth (total values of assets minus total values of debt) of college-educated young adults (aged 40 or younger) without education debt was seven times greater than those with student loans (Fry et al., 2014). The study by Zhan et al. (2016) utilized a treatment–effect model that better controls selection bias to examine the link between student loans and multiple measures of wealth accumulation. Their findings indicate that having outstanding student loans upon leaving college is negatively related to postcollege net worth, financial assets, nonfinancial assets, and the value of primary housing.

Studies also projected possible long-term loss of savings due to student loan debt. Egoian (2013) estimated that a bachelor degree holder with a median student debt of $23,300 would have $115,096 less in retirement savings at age 73, compared to his counterpart without such debt. By analyzing Survey of Consumer Finances data, Hiltonsmith (2013) projected that an average education loan of $53,000 leads to a lifetime loss of $200,000 in retirement savings.

There is also some evidence that student loan debt might be associated with reduced ownership rates and delayed purchase of homes and vehicles (Brown & Caldwell, 2013; Houle & Berger, 2015; Shand, 2007; Stone, Van Horn, & Zukin, 2012). The study by Houle and Berger (2015) found the inverse associations between student loan debt with home ownership status, as well as with mortgage acquisition and the amount of mortgage debt, among a national representative sample of young adult home owners, but the effect size of their findings were modest.

Financial Hardship

Studies have indicated that student loans are linked to various measures of financial hardship (e.g., Akers, 2014; Bricker & Thompson, 2016; Despard et al., 2016; Gicheva & Thompson, 2015). The study by Bricker and Thompson (2016) indicated that households with student loan debt were more likely to experience late bill payment and denied credit, and they had higher payment-to-income ratio. Gicheva and Thompson (2015) reported that more student loan debt was also associated with higher likelihood of declaring bankruptcy in addition to being credit constrained and more likely to experience difficulty staying current on payments. The study by Despard et al. (2016) examined the link between student loan debt and more comprehensive measures of financial hardship among low- and moderate-income households. Their study findings indicate that having student loan debts increased the likelihood of material hardship (cannot afford certain types of food, late payment, etc.), health care hardship (cannot afford to see a doctor or go to hospital, etc.), and financial difficulty (experiencing a bank overdraft, a credit card being declined, etc.). In addition, college graduates experienced lower odds of hardship, compared to their nongraduate peers.

This Study

The evidence reviewed above indicates that student loan debt compromises wealth accumulation and is related to increased financial hardship among young adults. However, existing research has not specifically examined how student loan debt may influence financial hardship differently for white young adults versus minority young adults. There is some evidence that student loans have additional negative links with wealth accumulation among minority young adults (Houle & Berger, 2015; Zhan et al., 2016). Thus, it is worthwhile to explore possible differences in the relationship between student loans and financial hardship, so that corresponding policies and practices could be developed.

Methods

Data and Sample

The data for this study are from the 2015 National Financial Capacity Study (NFCS), a triannual survey that was initiated in 2009 and funded by Financial Investor Regulatory Authority (FINRA) Investor Education Foundation. The participants for the 2015 NFCS survey were recruited online through three established panels in the United States: Survey Sampling International (SSI), EMI Online Research Solutions, and Research Now. The survey used nonprobability quota sampling with 500 samples per state and about 1,000 samples each in the four large states of California, Illinois, New York, and Texas. A total of over 27,000 adults completed the survey in 2015, with a response rate of nearly 40 percent. The sample for this study included 5,013 respondents in the age group of 24–35 years (young adults), including 3,165 white young adults and 1,848 minority young adults.

Variables and Measures

Outcome Variables: Financial Hardship

Young adults' experience of financial hardships is measured using four categories of indicators. The first indicator is whether or not a respondent experiences difficulty to cover his/her expenses and pay all their bills in a typical month (1 = somewhat or very difficult; 0 = not at all difficult). The second measure covers hardship related to health care, more specifically whether or not a respondent had any unpaid bills from a health care or medical service provider at the time of interview, or they had to skip treatment or prescription for medicine due to cost in the last 12 months. A binary measure was recoded, which indicates whether or not a young adult experiences any of these hardships related to health care (1 = Yes, 0 = No). The third indicator is whether or a not a respondent was late with mortgage payments in the past 12 months (1 = Yes, 0 = No). And the fourth measure is whether or not a respondent was late with a student loan payment in the past 12 months (1 = Yes, 0 = no).

Independent Variables

The two primary variables of interest are a respondent's race (white, non-Hispanic vs. others, "minority") and whether or not a respondent had any outstanding student loans at the time of interview.

Young adults' other demographic characteristics include their sex (male vs. female), marital status (married vs. not married), and whether having dependent children (yes or no). Their socioeconomic characteristics include their annual household income (less than $35,000, at least $35,000 but less than $75,000, and at least $75,000 and above), educational status (some college education or less, bachelor degree or above), employment status (employed vs. unemployed), checking account ownership (yes or no), savings account (money market account, CDs) ownership, home ownership (yes or no), health insurance coverage (yes or no), and whether a respondent set aside emergency funds that would cover expenses for 3 months, in case of emergencies (yes or no). A respondent's level of financial knowledge is also included. Financial knowledge is measured with an individual's cognitive dimensions or objective knowledge about financial concepts. This is measured by a series of six questions, which objectively test a person's knowledge of certain financial aspects, such as compound interest, inflation, interest rates and bond prices, mortgages, and stock and mutual fund. A new financial knowledge measure was created with these six questions, with "low financial literacy" (zero to three correct answers) and "high financial literacy" (four to six correct answers).

Statistical Analysis

Several major analyses were conducted. First, descriptive analyses were conducted to present sample characteristics by race (white young adults vs. minority young adults). Chi-square analyses were further conducted to examine if sample characteristics, including measures of financial hardships, vary by race. Second, more detailed analyses were run to examine how indicators of financial hardship vary by both race and student loan status. Third, regression analyses were conducted to examine how race and student loan debt are related to the indicators of financial hardships, after controlling other demographic and socioeconomic variables in the model. Since all four measures of financial hardships are binary (yes or no), four logistics regression models will be conducted.

Results

Sample Characteristics

Table 1 provides descriptive statistics for the study sample by race. The sample of 5,013 respondents included 3,165 white young adults (63 percent) and 1,848 minority young adults (37 percent). Not surprisingly, a number of sample characteristics were statistically different in these two groups. Compared to minority young adults, white young adults were more likely to be married (56 percent vs. 46 percent). A higher proportion of white young adults had a bachelor (or a higher) degree, were employed, and had higher household income. They also were more likely to have a bank account, home ownership, emergency fund, and health insurance coverage. In addition, a larger percentage of white young adults had higher levels of financial knowledge. In terms of the four measures of financial hardships, minority young adults were more likely to have difficulty in paying bills and covering expenses, and they had higher risks of being late on mortgage and

Table 1 Sample characteristics by race ($N = 5{,}013$)

Variables	Whites ($N = 3{,}165$)	Minorities ($N = 1{,}848$)	Chi-square
Gender			
Female	57%	56%	$p = 0.40$
Marital status			
Married	56%	46%	$***p = 0.001$
Having dependent children	53%	52%	$p = 0.31$
Education			
Some college education or less			
Bachelor's degree and above	47%	44%	$*p = 0.05$
Employment status			
Employed	74%	71%	$*p = 0.02$
Income			
Less than $35,000	30%	36%	$***p = 0.001$
≥ $35,000 but <$75,000	43%	41%	
≥ $75,000	27%	23%	
Having health insurance coverage	86%	82%	$***p = 0.001$
Checking account ownership	93%	91%	$*p = 0.02$
Savings and other account ownership	79%	77%	$*p = 0.04$
Home ownership	53%	40%	$***p = 0.001$
Having emergency fund	43%	45%	$+p = 0.07$
Financial knowledge			
High financial literacy scores	40%	29%	$***p = 0.001$
Having student loan debt	48%	46%	$p = 0.15$
Financial hardship			
Having difficulty paying bills	54%	59%	$**p = 0.01$
Having difficulty meeting health care needs	47%	46%	$p = 0.21$
Late on mortgage payment (among home owners)	20%	31%	$***p = 0.001$
Late on student loan payment (among loan holders)	25%	33%	$***p = 0.001$

$+p < 0.10$, $*p < 0.05$, $**p < 0.01$; $***p < 0.001$.

student loan payment. The two groups were not statistically different in meeting needs related to health care.

Financial Hardships by Race and Student Loan Status

Financial hardships of young adults were further examined by their race and student loan status (Table 2). The young adults with student loan debt were more likely to have difficulty in paying bills and covering their expenses, within each of the two groups. Those with student loan debt were also more vulnerable to being late on home mortgage payment. For example, among white young adults, 27 percent of those with loans had instances of late payment, compared to 12 percent among those without loan; and among minority young adults, the percentages were 47 percent and 16 percent, respectively.

Table 2 Financial hardships by race and student loan debt

Financial hardship	Whites		Minorities	
	With loans	Without loans	With loans	Without loans
Having difficulty paying bills	59%	48%	64%	54%
Having difficulty meeting health care needs	55%	38%	56%	37%
Late on mortgage payment (among home owners)	27%	12%	47%	16%
Late on student loan payment (among loan holders)	25%	N.A.	33%	N.A.

Results from the Logistics Regressions

Table 3 presents the results from logistic regressions on the four indicators of financial hardships. Results indicate that, after controlling for all other factors in the model, minority young adults were more likely to experience difficulty in covering expenses and paying all bills as well as in meeting health care needs due to cost. They were also more likely to being late on home mortgage and student loan payment (odds ratios ranged from 1.1 to 1.6).

Results also indicate that young adults who had student loan debt were more likely to experience financial hardships. For example, the young adults who had student loan debt were about 0.8 times more likely to have difficulty in paying bills, 1.3 times more likely to have financial difficulty in meeting health care needs, and 2.3 times more likely to being late on mortgage payment.

Among demographic and socioeconomic factors, female young adults and those with dependent children were more vulnerable to financial hardships. On the other hand, those who had at least a bachelor's degree, had higher income, and had health insurance coverage were likely to suffer financial hardships. Similarly, young adults who owned savings accounts, and those who had emergency savings were less likely to experience financial hardships. Higher levels of financial knowledge were also important factors in protecting young adults from financial hardships. However, young adults who were employed were more likely to be late on mortgage and student loan payment, and the home owners were more likely to be late on loan payment as well.

Discussion, Limitations, and Implications

Discussion

This study investigates the association between student loan debt and financial hardship among a nationally representative sample of young adults. Financial hardship was common among the study sample. Over half of young adults experienced difficulty in paying bills on time, and nearly half of them also struggled

Table 3 Unstandardized coefficients and odds ratio from logistic regression models

	Difficulty in paying bills	Difficulty in meeting health care needs	Late in mortgage payment	Late in loan payment
Gender				
Female	0.135/1.145*	0.20/1.22**	–0.37/0.69**	–0.16/0.86
Race				
White	–0.121/0.886+	–0.12/0.91*	–0.46/0.63**	–0.32/0.73**
Marital status				
Married	–0.115/0.892	0.083/1.08	–0.18/0.84	–0.06/0.984
Dependent children	0.554/1.74***	0.48/1.61***	1.02/2.78***	0.50/1.64***
Education				
Some college education				
Bachelor's degree or above	–0.258/0.773***	–0.43/0.65***	–0.32/0.73*	–0.52/0.59***
Employment status				
Employed	0.03/1.03	0.077/1.08	0.621.86**	0.31/1.36*
Income				
(Less than \$35,000)				
≥\$35,000 but <\$75,000	–0.64/0.528***	–0.138/0.871+	–0.17/0.85	0.15/1.16
≥\$75,000	–0.109/0.335***	–0.485/0.596***	–0.61/0.55*	–0.08/0.92
Health insurance coverage	–0.217/0.805*	–0.518/0.596***	–0.67/0.51**	–0.61/0.54***
Checking account ownership	–0.159/0.853	–0.128/0.88	–0.99/0.37*	–0.17/0.84
Other bank account (savings, CDs)	–0.262/0.770**	–0.070/0.93	–0.49/0.61*	–0.57/0.57***
Home ownership	–0.069/0.933	0.092/1.09	N.A.	0.44/1.55***
Having emergency fund	–1.126/0.324***	–0.383/0.682***	0.37/1.45*	0.02/1.02
Financial literacy				
Low financial literacy				
High financial literacy	–0.270/0.763***	–0.127/0.881+	–0.13/0.28***	–0.35/0.70**
Having student loan debt	0.577/1.78***	0.845/2.33***	1.20/3.33***	N.A.
Race * student loan	–0.08/0.24	–0.11/0.39	–0.54/0.67*	N.A.

$+p < 0.10$, $*p < 0.05$, $**p < 0.01$; $***p < 0.001$.

in meeting basic health care needs. About a quarter of home owners were late on mortgage payment, and nearly one-third of those who had student loans were late on student loan payment. Although common among the entire sample, financial hardship was much worse among minority young adults and those who had student loan debt.

More specifically, this research examines two major research questions. First, it investigates the relationship of student loans and race with different measures of financial hardship among young adults. After controlling for a range of socio-economic characteristics, study findings indicate that having student loans was negatively related to difficulty in paying bills, meeting needs related to health care, and being late on home mortgage payment. This result is consistent with previous findings (Bricker & Thompson, 2016; Despard et al., 2016; Gicheva & Thompson, 2015). The findings from this study further contribute to the knowledge in the literature, since this study uses various measures of financial hardship that indicates a young adult's financial ability to meet basic needs in utilities, housing, health care, and other areas. Contributing to the literature (e.g., Karpman et al., 2018), the study also finds that after taking student loans and a range of socio-economic characteristics into consideration, minority young adults were more likely to experience all four types of financial hardship than their white counterparts. In other words, the disadvantages of being a minority persist. Thus, future research is needed to further explore what additional factors may help explain the different experiences in financial hardship between white young adults and minority young adults.

This study further explores the second research question, that is, whether the association between student loan debt and financial hardship differs between white young adults and minority young adults. The significant interaction between race and having outstanding student loans in their influence on mortgage payment indicates that student loan debt had an additional, negative impact, and that impact differs from the main negative effects of race and student loan debt. This result is consistent with our second hypothesis. As we mentioned earlier, minority young adults are more likely to have education loans than their white counterparts and their loan burden would be much higher (measured with loan-to-income ratio and loan-to-financial assets ratio), which may help explain why the effects of loans are stronger for minority young adults. It provides evidence that having education loans may further magnify the already widening financial status between white young adults and minority young adults. However, interaction between race and student loan was not statistically significant in their influence on difficulty in paying bills or meeting health care needs.

As one of the few studies that examines the relationship between student loans and other factors with financial hardship, some of the results from covariates are worthy of mention. Among demographic characteristics, female young adults and those with dependent children were more likely to have financial hardship, which is consistent with results from previous research (e.g., Karpman et al., 2018). The probability of experiencing all four measures of hardship was higher for young adults with a bachelor's degree than for those without a 4-year degree, and the differences persist in results from analyses that control for education loans as well as other variables. This finding highlights the importance of a college degree in improving financial statistics among young adults, although student loan increases financial hardship. Household income and having health insurance also helped reduce young adults' financial hardship, highlighting the importance of availability of economic status and health insurance coverage. These findings on education, income, and health insurance are consistent with the research findings on the relationship between student loans and wealth accumulation (e.g., Zhan & Sinha, 2019).

Another interesting finding is that it seems financial capacity-building among young adults, which includes both access to savings and financial literacy, were negatively related to financial hardship among young adults. More specifically, young adults with higher levels of financial literacy were less likely to experience all four indicators of financial hardship, compared to those with lower levels of financial literacy. Moreover, young adults who had savings accounts and emergency savings were also less likely to experience hardship. These findings support the notion that financial capacity-building helps enhance financial well-being (Sherraden, 2010), thus reducing financial hardship.

Limitations

A few limitations are noteworthy and point to useful directions for future research. First, the study is not an experimental research or a longitudinal study. Although the study utilizes a well-regarded national data set and controls for a number of important factors that may influence financial hardship, it is impossible to fully rule out alternative explanations for the findings. Second, as the data were collected through self-administered questionnaires on a website, there are high chances of selection bias of the participants; in addition, the low response rate of the survey further indicates that the responses could be biased. Third, this study does not examine the possible mechanisms through which student loan debt and race influence financial hardship. Future analyses in this regard will help develop a new knowledge base and theoretical frameworks as well as effective policy and practice interventions.

Implications

In a period of rising education loan burdens among young adults and the marked financial challenges they face, it is critical to examine the link between education loans and financial hardship in this population. The current study provides evidences that having student loans present different types of financial hardships for young adults. In addition, it appears that student loan debt might have additional negative links with financial hardship for minority young adults. Therefore, addressing college students' financial needs with additional education loans and other types of credit may be counterproductive and may also magnify racial/ethnic disparities in financial status among young adults.

Alternative strategies to address college financial needs are needed. The cost burden of college tuition has shifted more toward the student and their family in recent decades, versus assistance from the state or the federal government. Therefore, it is critical to promote federal and state investment in affordable higher education, thus increasing access of students to need-based student aid and decreasing their reliance on student loans. For example, Pell Grants are perhaps the most effective investment by the federal government in helping college access and success of low- and moderate-income students. However, the purchasing power of Pell Grants has declined over time; therefore, improving Pell Grants can help reduce minority and low-income students' reliance on loans (Ratcliffe & McKernan, 2013).

Given the consideration that minority students are more likely to be the victims of financial fraud (Ramirez, Ohlhausen, & McSweeny, 2016), it is equally important to strengthen policies that help loan holders to avoid fraud and abuse of student loan services by receiving accurate and timely billing statements and available repayment options (Illinois Asset Building Group, 2017). Also, evidence shows that young adults' participation in this Income-Based Repayment Plan can help them save and build financial wealth (Zhan & Sinha, 2019). However, many loan borrowers are unware that participation of Income-Based Repayment (IRB) plan can be used to help them avoid default or improve their credit standing (Herbst, 2018). Therefore, increasing the knowledge of this program among young adults, especially minority young adults, and expanding the program's eligibility and streamlining the application process will be helpful.

Another important finding from this study is that minority young adults face particular financial challenges, compared to their white peers. In addition to student loan, they face challenges due to their lower education status and income, as well as their disadvantages in the financial market experiences (including less access to mainstream bank account and lower levels of financial literacy). Therefore, strategies that help improve graduation rates of minority college students and increase their access to mainstream financial services may help reduce their financial hardship.

The study findings also show that financial literacy is another important buffer to financial hardship. However, evidence shows that young adults, including college graduates, have demonstrated lack of financial knowledge and skills (Avard, Manton, English, & Walker, 2005; Chen & Volpe, 2002; Robb, 2011; Sinha, Tan, & Zhan, 2018). Therefore, it is critical to invest more in the financial education efforts among children and young adults. There is evidence that young adults are less likely to take advantage of financial education opportunities than other age groups (McDaniel, Montalto, Ashton, Duckett, & Crot, 2014; Mottola, 2014). Perhaps, customizing the programs based on the diverse needs of young adults, instead of designing/implementing one-size-fits-all programs, may help improve program participation. Given the lower levels of financial literacy among minority young adults (Sinha et al., 2018), and the lower returns of financial education among them (Al-Bahrani, Weathers, & Patel, 2019), it is even more critical to design financial education programs that are specially designed to meet their needs.

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