Student Educational Loans and Life-Stage Milestones

Alison Munsch
Iona University

Eleni Mariola
Iona University

The cost of college education increased by 25 percent since 2008 while student debt increased by over 100 percent for the same period and stands at $1.727 trillion representing over nine percent of household debt. This paper uses a survey to assess the impact of student loans on major life-defining decisions by students in a private university. The results indicate that educational loans have negative effects on savings for retirement, wealth creation, career choices, and life milestones like homeownership and starting a family. Moreover, the financial burden of the loans leads to stress and anxiety about future financial stability.

Keywords: student educational debt, life-stage milestones

INTRODUCTION

The federal student loans in the US topped 1 trillion in 2013 (Chopra, 2013) while the total outstanding student loans surpassed the $1 trillion mark in 2011 and are at $1.73 trillion as of the fourth quarter of 2023 (New York Fed HHDC, 2024). Student loan debt currently represents nine percent of the overall household debt. There are 44.7 million borrowers with an average student loan debt of $32,731. California, Texas, Florida, and New York represent over a quarter of the total student loans. Student debt is held primarily by high income (>$74,000) households that owe more than 60 percent of outstanding educational debt (Baum and Looney, 2020). Moreover, households with graduate degrees owe 56 percent of the outstanding educational debt. The authors claim that lower income households were affected by the pandemic more than others but not because of unpaid student loans since they did not have them in the first place. Attempts to forgive student loans and/or waive monthly payments fail to address the broader issue of economic inequality in our society.

Women carry a proportionally high percent of the overall student loan debt (almost two-thirds) with black women completing their undergraduate studies with an average of $37, 558 in loans, and Asian women with the lowest average of $25,252 (AAUW, 2021). Women also have greater difficulties in repaying the loans since they get paid 80 percent of what male graduates receive. Cost of college degrees increased by 103 percent since 1987 while the median household income increased by only 14 percent for the same period. Moreover, the 25 percent increase in the cost of college degrees since 2008 was accompanied by an over 100 percent increase in student debt (AAUW, 2021).

The decline in student loan delinquencies was only due to CARES ACT administrative forbearances that cover most federal student loans. It is also important to note that actual delinquencies are probably

double the ones reported since about half of the loans are in grace period, deferment or forbearance. Less than one percent of student loans is reported to be 90+ days delinquent, and the number may stay at this level since missed payments to federal student loans will not be reported to credit bureaus until the fourth quarter of 2024. With nearly ten million borrowers in default or near default, the Education Department has recently announced plans to accelerate collections and remove federal benefits when appropriate. Student loans are a considerable percentage of the overall debt of individuals, even those over the age of 50 who have taken on student loans to enroll in schools (following the financial crisis of 2008) and/or to help family members.

While data from the Bureau of Labor Statistics on employment and income of college graduates with a bachelor's degree do support the benefits of a college education (BLS, 2023), many students face the dilemma of earning a bachelor's degree while loading on student loans.

The Department of Education released information on earnings for different college programs and all degree levels (Burke, 2019)1. For both non-profit and for-profit institutions, the median debt was higher than the median first year earnings. The gap was the highest for professional programs (law, medical school) and the lowest for bachelor's in computer science and engineering programs at highly selective institutions.

The financial crisis and subsequent great recession started in the real estate market in 2006 as defaults on subprime mortgages started to rise. While the damage was contained initially, it ended up reducing economic activity as the issues spread throughout the economy. The crisis eventually revealed a wave of deflation and liquidation that took asset values lower, including oil and gas. At the same time, unemployment rose as companies reduced output in response to a decrease in aggregate demand. Eventually, an aggressive stimulus employed by governments to combat the financial crisis resulted in expectations of increased inflation that led to commodity buying and an improvement in credit conditions. Demand rebounded as the fiscal and monetary stimulus reversed deflationary forces and led to prices climbing higher. However, companies forced to raise capital during this period suffered higher interest rate expenses for an extended period of time.

With student loan debt quadrupling since 2004 and becoming higher than most American debt (other than mortgages), there is a concern that there will be adverse effects on the economy as the loans become due. This was of particular concern because of the soft economy and high unemployment rates that were caused by the COVID pandemic.

Given the current levels of student debt and a possible future economic contraction there are many questions that need to be addressed: What are the long-term effects of student loans on the borrowers' life-defining decisions? Is the student debt crisis here? If so, what does this mean for the long-term health of the US economy and the financial security for US Citizens? What can be done to mitigate and/or prevent the adverse effects of the student debt crisis?

This paper seeks to explore the effects of the crushing student debt on borrowers' life- defining decisions by conducting a survey of students in a four-year small- size private university. In addition, we attempt to investigate whether sufficient information was provided to the borrowers for making a rational decision. Recommendations on means for ameliorating/resolving the student debt crisis are also provided.

Our research contributes to the literature of the effects of student loan debt on students' ability to attend college and on students' future life-defining decisions.

The paper proceeds as follows: Section II consists of a literature review and hypotheses development, Section III includes the data selection, methodology and empirical results, and Section IV presents the conclusion.

SELECTED LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Research demonstrates that the increase in student loans: lessens the probability of graduation (Chakrabarti et al., 2022); forces graduates to accept part time jobs or jobs that are unrelated to their studies to repay the loans; reduces their short-term household wealth (FRB of St. Louis); affects negatively the housing market as graduates attempt to repay student loans before entering the housing market (Federal

Reserve Report); leads to a decrease in the number of small business formation (FRB of Philadelphia); and prevents graduates from savings for retirement (Boston College).

Chacrabarti et al. (2022) use NYFed Consumer Credit Panel (CCP) and National Student Clearinghouse (NSC) data for US 4-year colleges for the period 2000-2015 and demonstrate that increased borrowing (due to increases in tuition) leads to a lower probability of completing a bachelor's or a graduate degree primarily for poor students. One of the consequences of this outcome is that it increases the existing educational and economic inequality. Hull et al. (2023) demonstrate that student loans reduce students' ability to obtain internships which in turn can lead to employment. Moreover, student loans lessen the effects of professor support and the schools' attempts to prepare students for the labor market.

Rothstein and Rouse (2011) study the effect of student debt on employment choices and find that individuals with student loans seek out highly paid jobs. Moreover, student debt affects academic choices as well. Luo and Mongey (2019) find that graduates with student debt accept jobs with higher wages but lower job satisfaction. Daniels and Smythe (2019) use NLSY97 data and find that individuals with student loans have an income that is 8 to 9 percent higher than those without student loans. The authors attribute the difference to higher work hours rather than higher wages. In addition, the authors demonstrate that there are differences in full-time employment with individuals with student loans obtaining full employment at a rate that is five percent higher than those without loans.

Student debt can affect homeownership since graduates with debt have a decreased ability to accumulate wealth and secure the necessary down payment, their debt-to-income ratio may be high and potential delays in student debt payments can affect one's credit score, all of which diminish their ability to secure a mortgage. Brown and Caldwell (2013) find that with tighter underwriter standards, individuals with student debt may have more limited access to housing and auto debt even though they have higher earning potential. Houle and Berger (2014) use data from the National Longitudinal Survey of Youth 1997 to explore the effect of student debt on homeownership and find the effect to be small. More recently, Mezza et al. (2020) use data on student loans from NSLDS (National Student Loan Data System) and credit reports for graduates of 4-year public schools for the period of 1997 to 2014 and find that student debt has a negative effect on homeownership with a $1,000 increase in debt leading to a four-month postponement of homeownership. Bleemer et al. (2021) use NY Fed CCP data on student borrowing and homeownership for 2007 to 2015, and data on educational attainment from the Integrated Public Use Microdata Series American Community Survey (ACS) and find that increased student borrowing leads to a reduction in homeownership. In particular, an increase in student debt by $1,000 leads to a .48 percent reduction in homeownership.

Black et al. (2023) study the merits of student loans in general and the effects on human capital, future earnings capacity and homeownership in particular. The authors use data from 4-year colleges in Texas and credit records and contrary to Mezza et al. (2020) and Bleemer et al. (2021) find that student loans have no effect on future homeownership of the borrowers. The authors attribute the difference to their data set as increases in loans are used for investments in human capital rather than to cover increases in tuition.

Small businesses that represent a vital part of the US economy are primarily financed by personal loans. Individuals with educational loans who want to start their own business may be limited in their efforts to raise capital, especially considering that student loans are not discharged in personal bankruptcy proceedings. One might expect that student loans can have a detrimental effect on small business formation. Ambrose et al. (2015) use data from 1999 to 2010 and find that there is a negative correlation between student debt and small business formation particularly for small businesses with fewer than four employees. Their model suggests that an increase of one standard deviation in student debt leads on average to a 14 percent decline in the creation of new businesses with fewer than four employees.

Krishnan and Wang (2019) use data for the period of 1992 to 2013 from the Survey of Consumer Finances (Federal Reserve) to explore the effects of educational student loans on entrepreneurship. Student debt reduces the available sources of financing for a prospective entrepreneur, and the high percentage of business failures renders the creation of new business very risky.[2] The authors find that an increase in student debt from $0 to $10,000 leads to a 1.4 percent decline in individuals' propensity to form new businesses. This negative relationship between student debt and entrepreneurship is more profound for

individuals with lower income and those working in high-technology industries. The authors do not find evidence that student debt places financial constraints on new business formation, but rather, they find that student debt increases the cost of business failure since it limits financial flexibility, and as such, it increases the risk associated with new business formation.[3]

Several studies have shown that student debt leads to a decrease in household wealth as well. Elliott and Nam (2013) study the effects of student debt on household wealth and find that the 2009 median household wealth of households without debt is three times higher than that of households with student debt. Zhan and Xiang (2018) examine the effects of student debt on wealth accumulation by minorities and find that 30-year-old Black and Hispanic graduates with educational debt hold lower levels of financial assets than those without debt.

Rutledge et al. (2018) use data from the from the National Longitudinal Survey of Youth 1997 Cohort (NLSY97) to examine the effects of student loans on retirement savings and find that students with debt at age 30 have lower 401(k) assets (proxy for all defined contribution plans) than those without debt. This relationship persists regardless of the level of debt indicating that it is the presence of loans rather than the level of debt that is important. Using data from the Survey of Consumer Finances, Batkeyev et al. (2024) extend the work by Rutledge et al. by addressing issues of endogeneity in decisions of educational loans and the Higher Education Amendments of 1998,[4] and find that there is a strong and economically significant negative relationship between student loan and retirement savings that persist over the long-run, for borrower of all age groups, and for both student and parent borrowers. To address the issue of student loans preventing individuals from saving for retirement, Congress passed in December 2022 the SECURE Act 2.0 that permits employers to consider loan payments as elective retirement contributions to make employees eligible for matching contributions.

Martin and Dwyer (2021) study the effects of economic shocks on the stress level of student debtholders and find that Black and Hispanic households with high student debt experience higher levels of financial stress due to the great recession.

Gicheva (2016) in a survey of registrants for the Graduate Management Admissions Test and finds a negative association between student debt and subsequent first marriage rates. In particular, a $10,000 in additional debt decreases the probability of students being married by 11 to 17 percentage points.

Based on the studies presented above, we expect student educational loans to have a negative effect on the probability of graduation, the formation of new business, homeownership, the accumulation of financial assets, and delays in other major life-defining decisions.

DATA DESCRIPTION, METHODOLOGY, AND EMPIRICAL RESULTS

While studies that utilize databases do provide useful information on the effects of educational debt on life milestones, we believe that the use of a questionnaire allows for a more granular insight into the thoughts and experiences of the borrowers. A descriptive research design is used for this research to address the research questions. The data collection tool was administered to respondents as an online survey delivered via email addresses through the Qualtrics XM platform. An availability sampling (locating participants through the researcher's personal and professional network) was used to select participants for the study. Within the data collection tool, the purpose of the research was explained, including potential benefits and any risks to the participant. Permission to proceed with the survey was acquired from each respondent although voluntary participation was implied in the research. The survey took respondents approximately seven minutes on average to complete and was offered on PCs, laptops, tablets and mobile phones and included validated questions with closed response choice and interval ten- point rating scales to facilitate quantitative analysis. Open-ended questions to facilitate qualitative diagnostic analysis of survey responses were also administered. The open-ended questions were placed in specific points in the survey to provide qualitative insights into the quantitative data provided by the closed response choice questions.

The research was conducted among self-identified current college students and alumni of a small private educational institution. Table 1 includes descriptive statistics of the sample. Seven hundred and one

individuals completed the questionnaire with two hundred and fifteen current students (30.67% of total sample) and four hundred eighty-six alumni (69.33%). There are more female (61.21%) than male (37.85%) respondents with .93% identifying themselves as "other".

TABLE 1
DESCRIPTIVE STATISTICS

Variable	Total Sample	Current Students	Alumni
	701	215 (30.67%)	486 (69.33%)
Gender			
Male	37.85%	34.92%	37.75%
Female	61.21%	65.08%	60.93%
Other	0.93%	0.00	1.32%
Race			
White	60.56%	39.68	71.33%
African American	9.86%	14.29	7.33%
Asian	3.76%	4.76	3.33%
Hispanic	20.66%	33.33	13.33%
Other	5.16%	7.94	4.67%
Age			
<30	54.81%	95.08	43.15%
30-50	37.89%	3.28	47.26%
>50	7.21%	1.64	9.59%
Rank			
Lower (Freshmen & Sophomore)	45.64%	45.36	n/a
Upper (Junior & Senior)	37.44%	37.63	
Graduate	16.92%	17.01	
Major			
Business	33.97%	26.66	38.25%
Sciences	6.23%	6.67	5.36%
Liberal Arts	49.30%	48.34	50.33%
Entrepreneurship	0.96%	1.67	0.67%
Health Sciences	9.57%	16.67	5.37%

The majority (54.81%) is younger than 30 years old, 37.89 percent between the ages of 30 to 50, and 7.21 percent are over fifty years of age. Over 45 percent (45.64%) are freshmen and sophomores, 37.44 percent juniors and seniors, and 16.92percent are graduate students. As far as the areas of studies are concerned, 49.30 percent major in liberal arts, 33.97 percent in business, 9.57 percent in health sciences, 0.96 percent in entrepreneurship, and 6.23 percent in sciences. The graduation dates of alumni range between 1962 and 2023, and 12.11 percent have more than one graduation date listed.

TABLE 2
LOAN INFORMATION

Variable	Total Sample	Current Students	Alumni
Educational Loan			
Yes	53.03%	67.33	47.38%
No	46.97%	32.67	52.62%
Amount ($)			
≤20,000	30.99%	40.00	26.04%
20,001- 50,000	25.00%	32.22	21.35%
51,001-100,000	27.46%	17.78	32.29%
>100,000	16.55%	10.00	20.31%
In Process of Paying off			
Yes	70.99%	37.23	89.80%
No	29.01%	62.77	10.20%
Able to Attend College without Loan			
Yes	7.82%	10.53	6.60%
No	92.18%	89.47	93.40%
Loan Information obtained before applying for college			
Yes	53.06%	53.68	51.27%
No	46.94%	46.32	48.73%
Source of Information			
Student Financial Services	29.96%	31.51	27.69%
The Internet	23.47%	28.77	20.51%
High School Guidance Counselor	18.05%	17.81	19.49%
Government Agencies	11.55%	4.11	14.36%
Financial Institutions (Banks, Credit Unions etc.)	13.72%	13.70	14.36%
Other	3.25%	4.11	3.59%
Quality of Information (0-10; 0=Poor and 10 = Excellent)			
0-4	34.0%	28.95	40.74%
5	19.5%	23.68	17.28%
6-10	46.5%	47.37	41.98%

Data on the amount of educational loans carried along with the sources and quality of information obtained can be found in Table 2. Slightly over 53 percent of all respondents carry educational loans, and for those with educational loans, over 56 percent have loans up to $50,000, 27 percent have loans ranging between $50,000 and $100,000, and 17 percent have loans of over $100,000. Approximately 71 percent of students with loans are in the process of paying off the loans.

Over 92 percent of the respondents state that they would not have been able to attend college without student loans. Many comments highlight the importance of obtaining a degree facilitated by student loans. Several responses reflect the financial burden of college and how student loans are necessary to make education affordable. Comments about tuition, expenses, and affordability are prevalent. Some responses highlight the role of student loans in covering costs associated with books, materials, and other resources essential for their education. A few comments focus on the personal and professional growth facilitated by attending college, including networking and skill acquisition, better job opportunities and career

advancement. Some responses indicate that student loans are crucial for pursuing graduate education, including master's degrees. The loans facilitate a more comprehensive campus experience, including access to facilities and engagement in the college community. Overall, the most prevalent theme is that student loans are vital for access to and completion of higher education, reflecting both the necessity and the financial challenges associated with college education.

When asked whether students obtained information before applying for college, 53 percent answered in the affirmative. Student financial services was the main source of information (≈30%) followed by the Internet (≈24%), high school guidance counselors (≈18%), government agencies (≈12%) and financial institutions (≈14%) and the rest from parents and friends. The quality of the information is rated as poor by 34% of the overall number of respondents with 19.5 percent rating it as a 5 (0=Poor and 10=Excellent). It is important to note that over 40 percent of the alumni consider the quality of the information poor (rated<5) compared to a 29 percent of current students, a possible indication of an improvement in the quality of information obtained over time. Several comments focus on understanding interest rates, loan terms, and repayment plans as crucial in their decision-making process. Overall, the responses indicate that personal networks (family, peers), online resources, and financial literacy played significant roles in decision-making regarding student loans. However, there is also a recurring theme of inadequate information and the perceived necessity of taking on debt to access higher education.

Students were also requested to provide their suggestions on the information that would have helped them make better decisions on acquiring student loan debt to fund their college education. Respondents indicate a need for a better understanding of interest rates, how they accrue, repayment plans, and the overall financial impact of loan repayments. There is a clear demand for information differentiating between federal and private loans, including their respective advantages and disadvantages. Many respondents express a need for financial literacy education, debt counseling, and one-on-one guidance from loan officers or financial advisors. Several respondents mention a desire for more information on scholarships, grants, and other non-loan funding options to reduce reliance on loans. Moreover, respondents highlight the need for clear and realistic information about the total cost of education, including hidden fees and the true cost of loan repayment over time. There are a few notable outliers as well stating that no information was given that helped them and/or found all available options unhelpful, indicating varied levels of support and resources available to different individuals. Overall, the responses indicate a strong need for comprehensive financial education, clear and transparent information about loans and repayment, and personalized guidance to help students make informed decisions about acquiring student loan debt.

The impact of educational loans on life milestones is summarized in Table 3. The debt impact on the borrowers' life overall has a mean value of 3.35 for the entire sample (0=Poor; 10=Excellent), 4.19 for current students, and 2.88 for alumni. The difference between current students and alumni is to be expected as the latter are more likely to experience the effects firsthand rather than anticipating them. The mean values of the ability to repay the loan in general or repay the loan when it comes due are 4.82 and 4.62 respectively for the entire sample.

When asked whether educational loans prevented life milestones, respondents agreed with the statement. In particular, the mean value for the entire sample is 6.97 (0=Strongly Disagree and 10=Strongly Agree). The mean values for current students and alumni are 5.68 and 7.54 respectively.

TABLE 3
THE IMPACT OF EDUCATIONAL LOANS ON LIFE STAGE MILESTONES

	Min	Max	Mean	Standard Deviation
Total Sample				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	0	10	3.35	2.98
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	0	10	4.82	3.20
Ability to Repay Loan (0= Poor and 10=Excellent)	0	10	4.62	3.19
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	0	10	6.97	3.16
Current Students				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	0	10	4.19**	3.11
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	0	10	4.41	3.30
Ability to Repay Loan (0= Poor and 10=Excellent)	0	10	4.54	3.18
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	0	10	5.68***	3.26
Alumni				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	0	10	2.88**	2.79
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	0	10	4.97	3.15
Ability to Repay Loan (0= Poor and 10=Excellent)	0	10	4.61	3.10
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	0	10	7.54***	2.96
** $p < .004$ *** $p < .001$				

Table 4 presents the impact of student loans on life milestones categorized by gender. The results demonstrate a statistically significant difference in the response between males and females on their ability to repay their loans in general and when they become due in particular. This statistically significant difference in the mean responses between males and females exists for the entire sample and for the sub samples for current students and alumni. It is not surprising to obtain these results since females do realize that they will be receiving on average lower wages than their male counterparts thus lessening their ability to service their educational debt. There are differences in the mean responses to the questions of the effects of loans on life overall and significant milestones, but the differences are not statistically significant.

Many respondents highlight the overwhelming financial burden of student loan debt, which significantly hinders their ability to save money, invest in their future, and achieve financial stability. This theme reflects the constant struggle to meet monthly payments and manage living expenses. Student loan debt influences significant life decisions, such as purchasing a home, starting a family, and even pursuing further education. Many respondents mention that student loan debt prevented them from purchasing a

home and or moving out of their parents' house. A significant number of respondents express that their student loan debt has hindered their overall financial stability and freedom.

Respondents convey frustration over the long-term effects of debt on their ability to move forward with their lives. Debt constrains career options, forcing graduates to prioritize job stability and income over passion or career growth. Some respondents indicate that they have to take jobs solely to manage debt, impacting their long-term career satisfaction. Others mention the impact on their ability to start a family as well as their overall personal happiness and relationships.

TABLE 4
THE IMPACT OF EDUCATIONAL LOANS ON LIFE STAGE MILESTONES BY GENDER

	Male		**Female**	
	Mean	**Standard Deviation**	**Mean**	**Standard Deviation**
Total Sample				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	3.47	3.058	3.29	2.964
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	5.78***	3.375	4.22***	2.917
Ability to Repay Loan (0= Poor and 10=Excellent)	5.68***	3.344	3.93***	2.687
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	7.05	3.449	6.92	2.964
Current Students (N=215)				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	4.27	3.467	4.15	2.983
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	5.10***	3.463	4.05***	3.234
Ability to Repay Loan (0= Poor and 10=Excellent)	5.14***	3.468	4.23***	3.051
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	6.10	3.698	5.48	3.088
Alumni (N=477)				
Debt Impact on Life Overall (0= Poor and 10=Excellent)	3.05	2.869	2.77	2.765
Ability to Repay Loan When It Comes Due (0= Poor and 10=Excellent)	6.02***	3.362	4.29***	2.803
Ability to Repay Loan (0= Poor and 10=Excellent)	5.81***	3.351	3.80***	2.600
Student Debt Prevented Life Milestones (0=Strongly Disagree;10=Strongly Agree)	7.48	3.33	7.60	2.681
*** $p < .001$				

The psychological toll of student loan debt is evident in the respondents' expressions of stress, anxiety, and mental health challenges. The burden of debt creates a persistent sense of worry and fear about the future.

Despite the negative effects of loans on the financial burden, the inability to save and create wealth, career choices, further education, purchasing a home or starting a family, several respondents expressed gratitude for the opportunities the student loans have provided. They acknowledge that loans enabled them to pursue higher education and advance their careers.

The above-mentioned results of our study lend support to previous research that demonstrated the effects of educational loans on savings for retirement, household wealth formation, career choices, increased stress and anxiety and postponement of major life decisions line starting a family and purchasing a house. Our study does not provide evidence of decreased business formation or decreased probability of graduation due to educational loans as hypothesized.

CONCLUSION

The results of this study indicate clearly that blindly taking on debt has adverse effects on the borrowers' anticipated post-graduation plans that could ultimately impact the health of the United States economy. Lower levels of savings and wealth formation, delayed homeownership and other life milestones associated with educational debt lead to increased anxiety and financial uncertainty. Despite the negative implications, student loans remain for some the only path for higher education and career advancement.

This research serves to educate students on the post-graduation realities as an incoming freshman as well as inform parents, to make sure they are aware of what their students will face once they graduate with student loan debt.

A result that stands out is the need for more detailed and better quality of information regarding student loans earlier – preferably while in high school. Financial literacy on the interest rates, repayment plans total costs of education are imperative for both students and parents. The inclusion of information on scholarships and grants before the choice of a school to attend is made is also essential.

Governmental agencies must consider revisiting their involvement in the supply of these loans along with the interest rates charged and the repayment plans offered.

Future research will focus on an exploration of international trends on student loan debt to yield information of potential approaches that can be applied in the United States, to provide potential ideas toward the mitigation of the adverse effects of U.S. student loan debt.

ENDNOTES

1. The released data have limitations as they include federal student loans taken by students only not parents, there are missing data for some departments, and the debt and earnings information are only for the first year after graduation
2. These results are more pronounced considering the Higher Education Amendments of 1998 that do not allow student loans to be discharged in bankruptcy proceedings.
3. For an overview of the effects of student debt on entrepreneurship refer to the Kauffman Foundation (2020).
4. The Higher Education Amendments of 1992 introduced non-subsidized federal student loans.

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