STUDENT ATTITUDES TOWARD BORROWING DEBT AND STUDENT LOAN BORROWING

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Executive Summary

This brief explores if student attitudes toward borrowing debt has a meaningful difference in the amount of student loans borrowed at Indiana University, Bloomington.

Below are the main findings of the analysis:

- 53% of students borrowed student loans over their first four years at IU
- Of those with debt, 129 students (about 12%) borrowed more than $80,000 in student loans for undergraduate degree
  - These outliers are excluded
- The average loan amount borrowed is $175 per credit ($18,980 for 4 years)
- Nearly 66% of students agreed that they have parents who are supportive of them taking out loans for their education
- 56% of students disagreed that they can finance college education without loans
- Student attitudes toward borrowing debt accounts for 7.8% of the variance in student loan debt
- There is a difference of up to $97/credit in loan borrowing based on student attitudes; that's up to $11,640 for a 4-year degree.

Introduction

Indiana University has put significant effort into reducing the student loan debt for its students. Indiana University has invested in programs, such as MoneySmarts and the annual student loan debt letters, which have provided positive results.

According to most recent IPEDS data, in 2016-2017, students at Indiana University (n = 11,490) borrowed nearly $75 million in federal student loans. In fact, between 2011-12 and 2017-18, the amount of federal student loans borrowed by undergraduates at IU decreased by 23%. The downward trend in loan borrowing is promising.

The purpose of this research brief is to further examine the student debt at Indiana University. More specifically, this report highlights empirical evidence that will allow the institution to better understand how students' attitude toward student debt influences their actual student loan borrowing behavior. To achieve this goal, this research brief explores the following two research questions:

1) What is the average amount borrowed in student loans for undergraduates at IU?
2) To extent does student loan borrowing differ by attitudes toward borrowing debt?

These questions provide valuable insight into the loan borrowing behaviors, financial self-efficacy, and attitudes toward debt for undergraduate students at Indiana University, Bloomington. The results also highlight who is most likely to encumber debt beyond the traditional demographic variables. Furthermore, the insights provide useful information for Indiana University to better focus its time and resources toward its effort of reducing student loan debt for undergraduate students.

Overview and Data Sources

This brief examines a robust dataset that combines several major data sources. First, this brief focuses on the students who completed the Beginning College Survey of Student Engagement (BCSSE) in 2014. The BCSSE survey was distributed online to all incoming first-year students and this particular survey administration included an experimental item set regarding student attitudes toward debt.

To understand how student attitudes relate to actual loan borrowing behavior, the BCSSE data was combined with Indiana University, Bloomington administrative data. In particular, this brief relies on student information about their enrollment status, loan amount, and financial need, between the years of 2014-2018. It is important to note that the student loan data only contains state and federal loans and does not include any private loans or other gift aid.

After combining the BCSSE 2014 and University data, there are 1,998 students who we have completed records. To best answer our research questions, this brief focuses on the students who have accumulated debt over four years at IU. As shown in Table 1, there are 1,058 students our dataset who borrowed student loans during their time at the institution, which is approximately 53% of our total sample.

Students with Debt	Count (N)	%
Does Not Have Student Loan Debt	940	47%
Has Student Loan Debt (>$0)	1,058	53%
Total:	1,998	100%

Student Loan Compared to Credits

It is essential to account for the amount of course credits a student has taken when analyzing student loan borrowing. Generally speaking, students who have taken more credits should have more cumulative loan debt. For the 1058 students who have debt, there are significant outliers present with several students who borrowed between $80,000 and $190,000 in loans. Since these students are far beyond the average, this analysis excludes those students as outliers. As a result, this analysis looks at the 929 students who have less than $80,000 in student loans. For these students, the average loan amount is $18,980 for 106 credits.

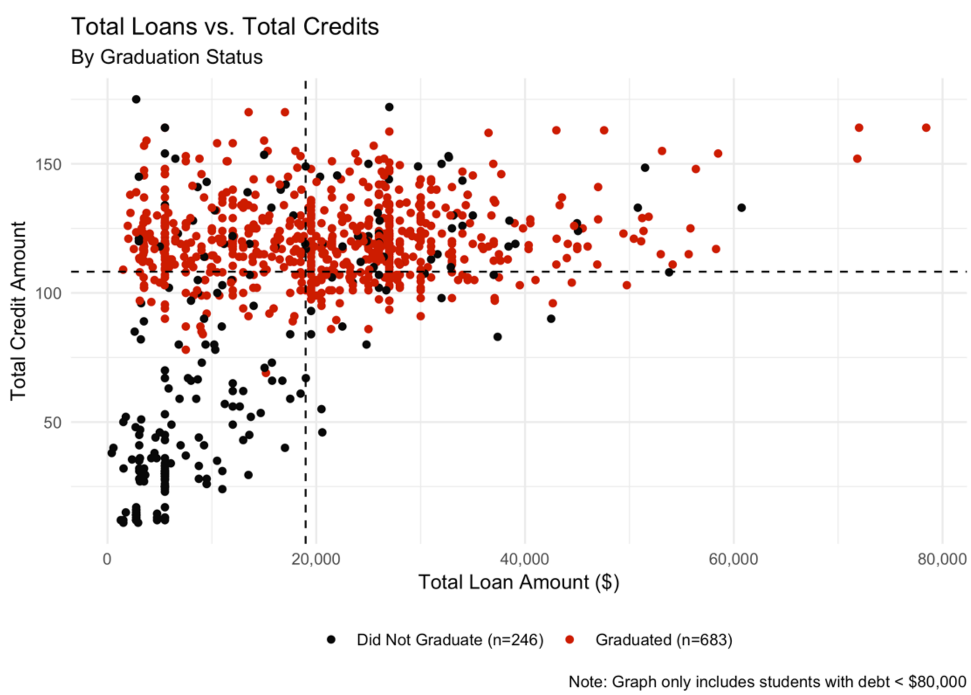


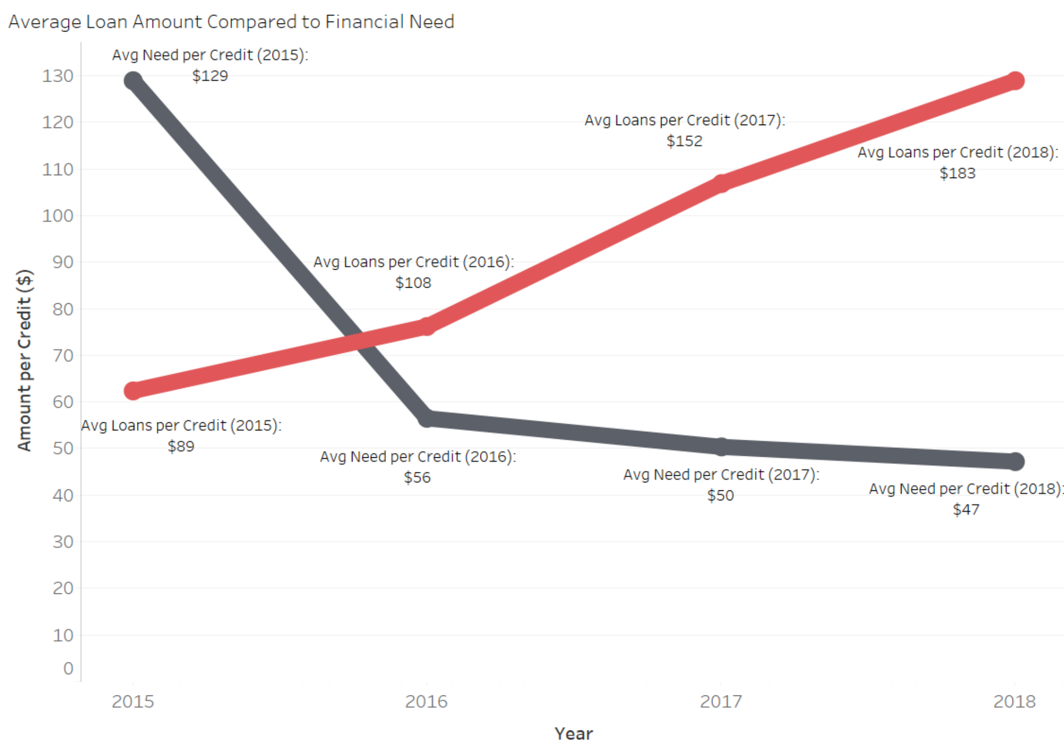
Figure 1 on the left displays the amount of loan borrow per credit and disaggregates by students who graduated from Indiana University. Of the students who borrowed student loan debt since 2014, 768 students (73.5%) graduated in four years. It is also important to note that most, but not all, of the students who didn't graduate took out a smaller cumulative loan amount indicating these are likely dropouts.

This report relies on the amount of loans per credit as the metric of analysis to account for the large variation in the credit hours and amount borrowed in student loans. On average, students borrowed $232 per credit to finance their undergraduate education at Indiana University. The average loan amount borrowed in the dataset is actually slightly lower than the national average for bachelor's degree college graduates who had student loan debt, which was $28,650 in 2017 (TICAS, 2018).

Students Borrowing Loans Beyond Their Financial Need

Financial need is an important consideration relating to student loan borrowing. Intuitively, students with higher financial need are more likely to take out student loans to cover the outstanding costs.

As you can see in Figure 2 on the right, the average financial need decreased over the course of four years for the 929 students who borrowed loans. In the first year, the average need amount was $129 per credit and in their senior year the amount lowered to $47 per credit. Interestingly, although the financial need decreased, the amount of loan borrowed increased dramatically over the four years. In the first year, 2015, the average loan amount was about $750 less than the financial need.



Student Attitudes Toward Borrowing Debt

There are 17 questions related to the Student Attitudes Toward Borrowing Debt item-set in BCSSE 2014, but I decided to focus this report on two specific questions. The two questions of interest from the BCSSE survey asked students to share their level of agreement with the following statements:

1) My parents/guardians are (or would be) supportive of me taking out student loans (Debt04b);

2) I can finance my education without loans (Debt05b).

These questions were selected because they provide a valuable insight into the students' level of parental support and financial self-efficacy. The response options for both questions are on a 5-point Likert scale that includes: strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. The first step is to examine the distribution of responses for the 929 undergraduate students in our dataset.

Findings show that nearly 66% of students agreed or strongly agreed that they have parents who are supportive of them taking out education loans. Whereas, for student's belief that they can finance education without loans, over 55% of students either strongly disagree or disagree with that statement. The table below provides a detailed breakdown of the student responses.

Count (Row Frequency Percentage)	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Missing (N/A)	Total
Parents are supportive of taking out student loans	28 (3.0%)	76 (8.2%)	197 (21.2%)	488 (52.5%)	121 (13.0%)	19 (2.0%)	929 (100%)
I can finance my education without loans	235 (25.3%)	291 (31.3%)	204 (22.0%)	127 (13.7%)	58 (6.2%)	14 (1.5%)	929 (100%)

Differences in Student Loan Borrowing by Attitudes

A two-way analysis of variance (ANOVA) was conducted to understand if student responses to these questions resulted in a significant difference on the amount of loans per credit borrowed. Prior to conducting the ANOVA, I confirmed the data meet the assumptions of normality and independence. In addition, the Levene's test indicated there is equal variance among the groups (F = 1.281, p = .135) which fulfills our final assumption required to complete the ANOVA. Lastly, a type II sum of squares was used to account for the fact that there is an unbalanced response count for each question (based on the frequency table above).

The results of the two-way ANOVA show significant main effect for both the questions and the total explained variance in the model (R^2) is .078. The analysis shows that the parent/guardian being supportive of taking out loans did result in a statistically significant difference of student loan borrowing, $F(5, 918) = 5.430$, p=.000, η_p^2 = .027. Whereas, the students' belief that they can finance their education without loans also resulted in a significant difference in student loan borrowing, $F(5, 1038) = 6.118$, p=.000, η_p^2 = .051. In conclusion, the findings of the ANOVA show that:

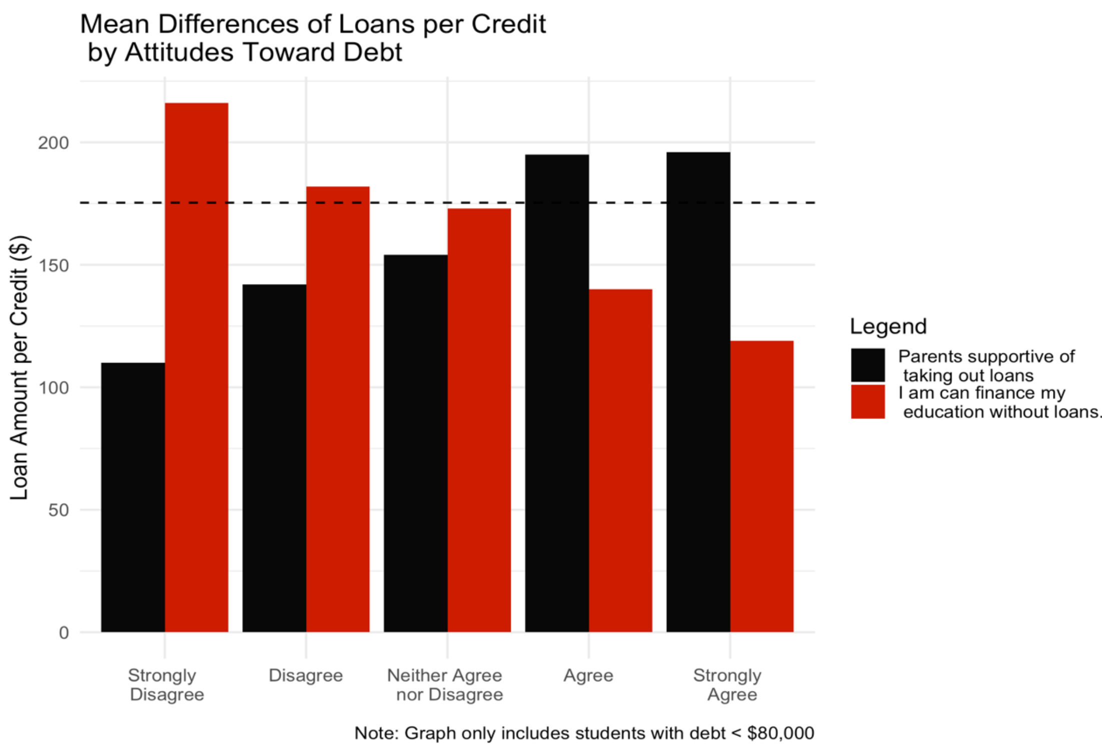
Loan borrowing varies significantly depending students' attitudes toward borrowing debt. In total, the two survey questions explain 7.8% of the variance in cumulative student loan debt.

A 7.8% explained variance is fairly high considering that the analysis was conducted without accounting for other student-level variables (e.g., in-state residency, race/ethnicity, gender). As a result of the significant main effects in the ANOVA, it is appropriate to compare the average loan amount borrowed for each of the groups. Thus, I conducted a post-hoc analysis using Tukey's HSD to determine the exact difference in the average loan amount borrowed. The largest differences in the average amount of loans borrowed are:

- For students who 'Strongly Disagreed' that their parents are supportive of taking out loans, they borrowed $85/credit less than students who 'Strongly Agreed'. *The difference in parental support amounts to $10,200 less in student loans on average for a 4-year degree.*

- For students who 'Strongly Agreed' that they can finance the education without loans, they borrowed $97/credit less than students who 'Strongly Disagreed'. *That difference in the attitude of paying for education without loans amount to $11,640 less in student loans on average for a 4-year degree.*

The figure below provides a side-by-side comparison of all the differences in student loan borrowing. As you can see, the values on the x-axis represent the Likert scale response options and the y-axis is the amount of loans per credit. The dotted line represents the average amount per credit borrowed, $175/credit, for the 929 students in the analysis. This visualization provides a clear illustration of the stark differences in the average loan borrowed by the attitudes toward borrowing.



Conclusion

The findings in this report provide a better understanding about student loan borrowing at Indiana University. One limitation of this report is that it only considers students who have accumulated less than $80,000 is debt; nearly 100 students with debt over $80,000 were excluded. Nonetheless, there are noteworthy findings based on the 929 students with student loan debt under $80,000. The average amount of student loan borrowed for undergraduate students at IU is $175/credit. Therefore, the total average cumulative loan amount ($18,980) for a 4-year degree at IU is considerably lower than the national average ($28,650). There are also significant differences in student loan borrowing depending on the students' attitude toward borrowing debt. Depending on the specific attitude, the differences in student loan debt is up to $97/credit, which amounts to $11,680 over a 4-year degree. Knowing these differences allows Indiana University, Bloomington to better focus its time and resources toward its efforts to reduce the total undergraduate student loan burden.

References

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