Information Use and Attention Deferment in College Student Loan Decisions

Rajeev Darolia
University of Missouri

New York Federal Reserve Bank
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Motivation

- Increasing focus on risk in higher education finance
- Institutions and policymakers have the incentive for students to make informed borrowing decisions
- Proliferation of low-cost, low-touch interventions and nudges
- “Debt letters” provide students extra and easily accessible information about their student loans
    - Now required in at least 2 states

Overview

- What is the effect of debt letters on borrowing?
  - Field experiment (N = 9802)
    - Treated students received an individually-tailored letter
  - Semi-structured interviews (N = 27)
  - Setting: Large Midwestern public university

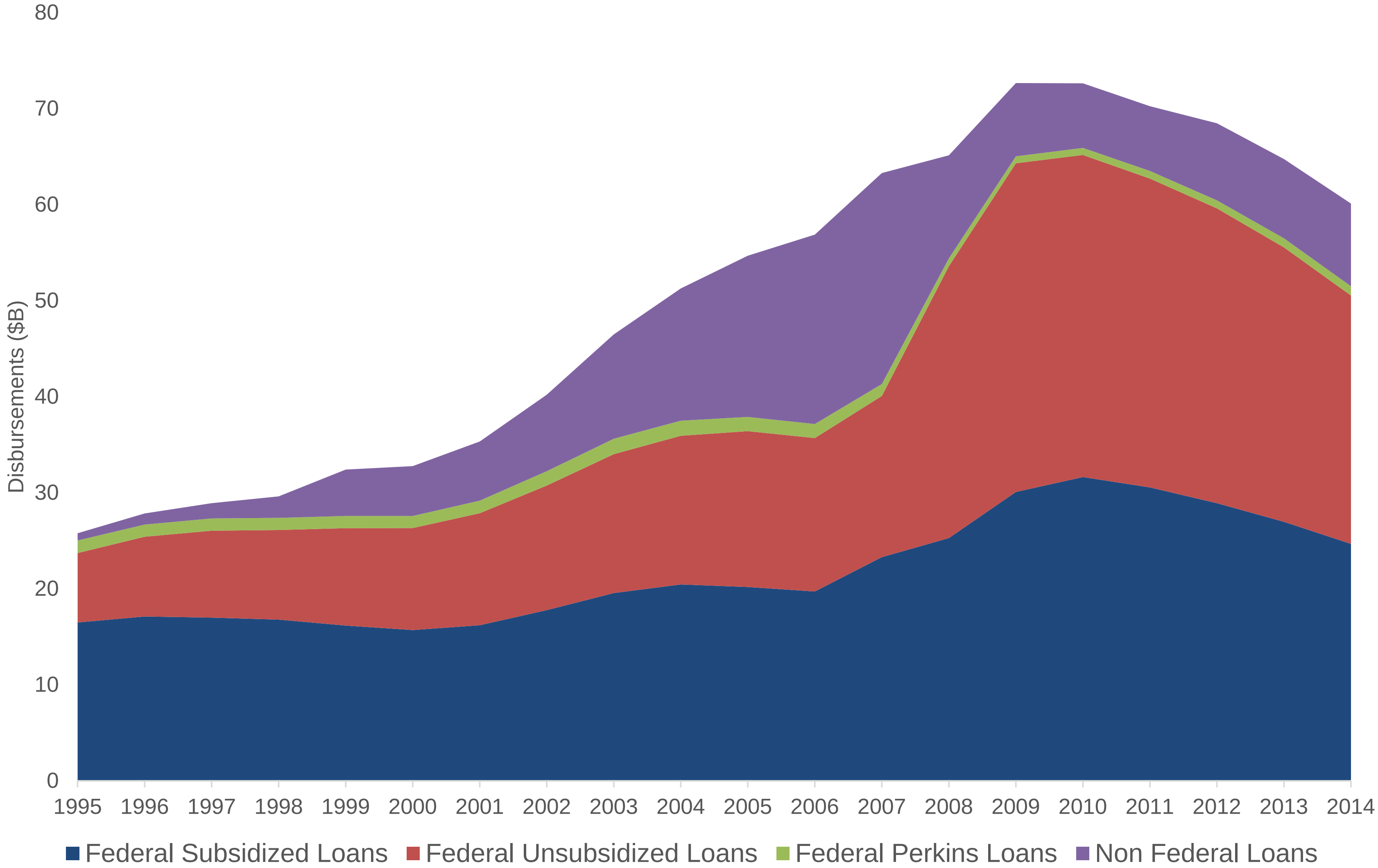
- Findings
  - No effects on borrowing
    - Limited/weak evidence for student subgroups
  - Purposeful attention deferment
    - Analogous to the way students can defer payments on student loan debt, students are similarly deferring attention to the implications of their borrowing until after college

Background: Student loans

- Repayment is the key issue
  - SL delinquency rates up nearly 2X over the past decade nationally
  - Default rates on federally supported loan programs recently reached their highest level in more than 15 years

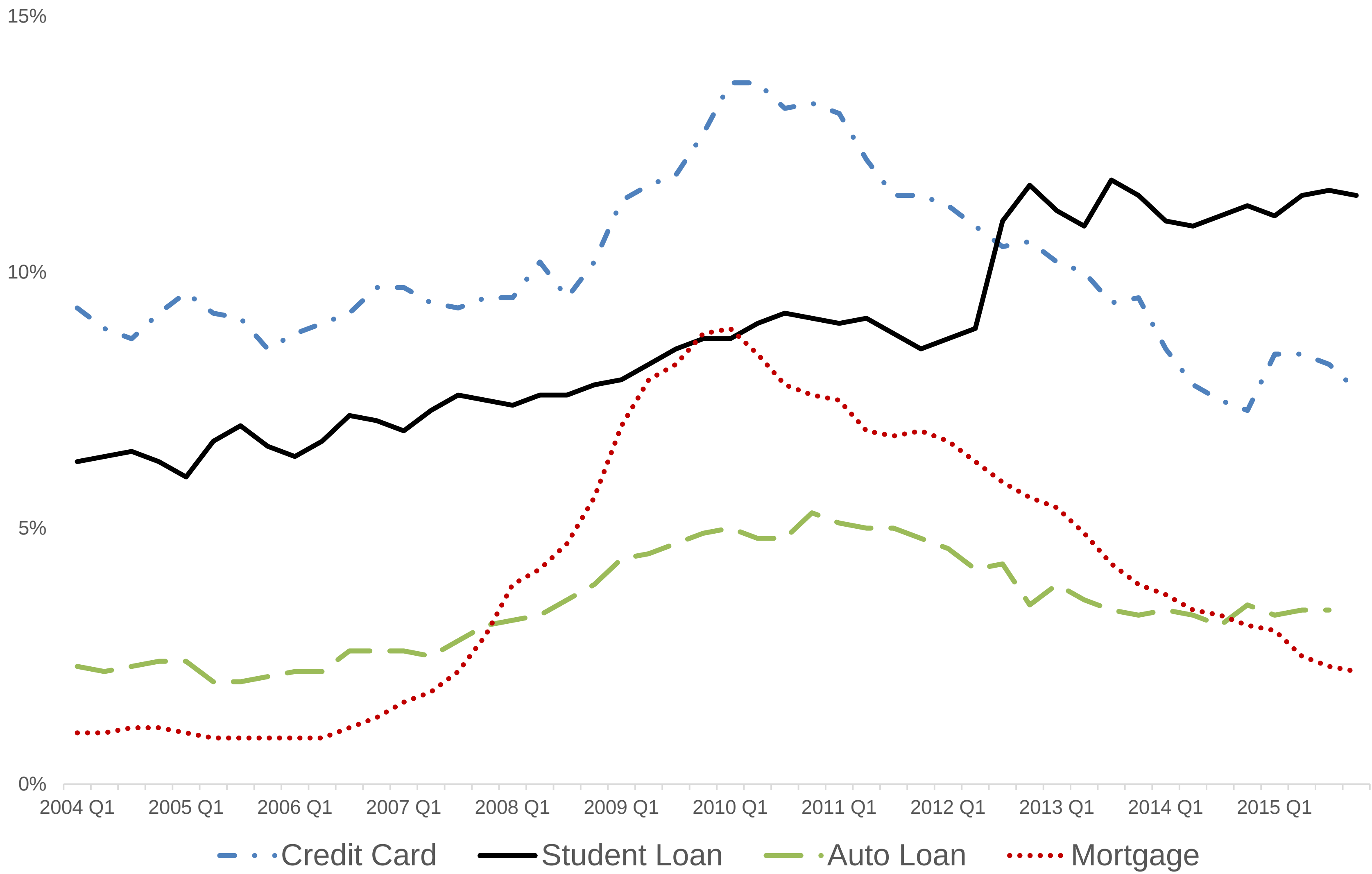
- Increasing momentum around regulation that holds institutions accountable for the student loan repayment of alumni
  - Gainful Employment regulations
  - Risk sharing proposals

Student loan disbursement trends (undergraduates)



Source: Baum et al. (2015). Total annual undergraduate loan borrowing in constant 2014 dollars, with each color representing a different type of loan. The y-axis is the total amount borrowed in billions of dollars

% of balance 90+ days delinquent



Source: Federal Reserve Bank of New York Quarterly Report on Household Debt and Credit (February 2016). Lines are the percentage that are at least 90 days delinquent for different segments of consumer credit.

Are students making ill-informed student loan decisions?

- Information-related issues
  - Lack of access to information; Information is not salient, or only partially salient; Computational errors processing information
- Students knowledge of borrowing
  - 1/8 to 1/3 of borrowers report no loan debt; 40%-50% underestimate amount owed (Andruska et al. 2014; Akers & Chingos 2015)
- Online counseling viewed as ineffective (Fernandez 2015)
- Evidence that information (+ other supports) can improve educational & financial decisions (e.g., Bettinger et al. 2012; Hoxby & Turner 2013)
  - These other supports may be necessary for complex decisions (Bergman, Denning, & Manoli, 2016)

Example institutional initiative – Indiana U System

- Debt letter, PLUS
  - Office of Financial Literacy
  - “MoneySmarts” financial education program
    - Podcast: “How not to move back in with your parents” averages 3K plays monthly
  - Completion programs
  - 1:1 meetings with 3rd party loan counselors

- Target: All students

- 16% reduction in borrowing (~$44M) over a 2 year period

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How Students at a U.S. University Borrowed $31 Million Less

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Updated by Libby Nelson on July 26, 2015, 11:00 a.m. ET @libbyanelson

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IU students get more information, borrow less

July 3, 2014 | Bloomberg News

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Some Universities Scare Students Into Monitoring Debt

By CLAIRE MCINERNY • MAR 23, 2015

Indiana University senior Kathryn

Indiana House Enrolled Act 1042

- Signed into law 04/15/2015, Effective 07/01/2015
- Passed 98-0 in House, 48-1 in Senate

Sec. 3. (a) An eligible institution that receives education loan information for a student enrolled in the eligible institution shall provide to that student the following information:

(1) An estimate of the total amount of education loans taken out by the student.

(2) An estimate of:

(A) the potential total payoff amount of the education loans incurred or a range of the total payoff amount; and

(B) monthly repayment amounts that a similarly situated borrower may incur, including principal and interest, for the amount of loans the student has taken out at the time the information is provided.

Other related research

- Montana State U (Stoddard, Urban, & Schmeiser 2017)
  - Debt letter + incentive to participate in 1:1 counseling ($20)
  - Target: students who borrow ~$6k annually
    - "If you continue to accept student loans at this rate you will accrue a debt level that may become difficult to repay"
  - Comparison groups: U of MT; MTSU students below threshold
  - No reduction in borrowing; Better academic outcomes

- Other experiments, e.g.,
  - Texts to adult community college students led to substantial reductions in borrowing (Barr, Bird, & Castleman 2016)
  - Community college students are biased toward the amount listed in their financial aid offers (Marx & Turner 2016)

Debt letter

- Letter presents neutral information about borrowing
  - Estimated future monthly payments (standard 10 year repay plan)
  - Summary about cumulative borrowing
  - Peer borrowing: median total loan debt of graduates

- Other potential benefits
  - Reminder about debt
  - Highlights avenues for help
  - Signal of interest and care from the university

Example letter: MU

Dear XXXX,

The purpose of this communication is to give you a quick report on what you have borrowed to date in student loans. Keeping track of your debt will help you be prepared for your responsibilities after graduation.

Total Federal Direct Loans borrowed to date while attending MyU: $XYZ

Subsidized Direct Loan(s) with interest that starts after you are no longer enrolled at least half-time

Subsidized	$XYZ	2013-2014
Subsidized	$XYZ	2014-2015

Unsubsidized Direct Loan(s) with accruing interest while you are in school:

Unsubsidized	$XYZ	2013-2014
Unsubsidized	$XYZ	2014-2015

The average MyU undergraduate borrows **$21,761** in Federal Direct Loans by the time they receive their bachelor's degree.

Estimated monthly payment on Federal Direct Loans borrowed to date: $XYZ

The estimate is based on debt borrowed to date and a standard repayment schedule. Additional borrowing may increase your estimated monthly payment.

You may be eligible for an alternative repayment plan. For additional information about your estimated payments under alternative payment plans or for more information on accrued interest go to https://studentloans.gov/myDirectLoan/mobile/repayment/repaymentEstimator.action. For further information on your federal loan servicer go to https://www.nslds.ed.gov/nslds_SA/.

Total Other Loans borrowed to date while attending MyU: $XYZ

Loans with accruing interest while you are in school:

Bank of X	$XYZ	2013-2014

Loans with interest that starts after you are no longer enrolled at least half-time:

Perkins	$XYZ	2014-2015

Repayment information for private loans is available from your lender. Repayment information on Perkins and/or institutional loans is available from MyU Student Loan Repayment Center at <LINK>>

We invite you to drop in and discuss your current and future loan debt with a financial aid advisor. Our current location is in Room 202, Ellis Library. A copy of this email will be retained in your myZou message center.

Setting: University of Missouri

- Setting
  - Large flagship public land-grant university
  - ~27K undergraduates, ~45% borrow
  - Median total undergraduate federal loan borrowing ~$23K
  - All students are offered max eligible federal loans
  - Limited work study and state loans available

- Sample (N=9802) includes all UG students who:
  - Were not scheduled to graduate
  - Borrowed in a prior academic year

- 1/2 randomly assigned to receive letter; 1/2 are control group

Delivery & Timing

- Email delivery
  - No texts allowed in the setting
  - Letter is also available at student portal
- Treatment group students received the loan notice twice
  - First notice in January 2015
  - Second notice in March 2015
    - Concurrent with the aid offer for the following year
- We observe outcomes for the 2015-2016 AY

Pre-letter characteristics

	Mean
Female	0.55
Non-Hispanic White	0.81
Black	0.16
Hispanic	0.04
Asian	0.03
Other minority	0.03
First generation	0.35
Financially dependent	0.92
State resident	0.73
Transfer student	0.14
EFC	18006
Pell Grant receipt	33%
Total loan $	6857
Has loan	0.89

Estimation

- Base model estimates:

$$Y_i = \gamma Letter_i + X_i\beta + \epsilon_i$$

- γ is the treatment effect: $E[Y|Letter = 1, X] - E[Y|Letter = 0, X]$

- Controls in *X*-vector (all measured pre-notice)
  - Demographic: Gender, Race/Ethnicity, First-generation
  - Academic: GPA, Credits earned, Transfer, In-state resident
  - Financial: EFC, Financial dependency
  - Lagged DV

Effect of letter on borrowing

Table 2: Effect of the Loan Letter on Borrowing

	(1)	(2)
A. Loan $		
Letter	-84	-82
	(108)	(90)
% of sample mean	1.5%	1.5%
Lower Bound 95% CI	-296	-258
B. Has a Loan		
Letter	-0.010	-0.014*
	(0.009)	(0.008)
% of sample mean	1.4%	1.9%
Lower Bound 95% CI	-0.028	-0.030
Controls		X
N	9802	9802

Notes: Source: Administrative data from the 2014-2015 and 2015-2016 academic years. Notes: Each coefficient is from a different estimate. Standard errors are included in parentheses. Controls for gender, race/ethnicity, first-generation status, EFC, GPA, credits earned, transfer student status, resident status, financial dependency, and the lagged dependent variable are included but not displayed.

Effect of letter on borrowing - subgroups

- Limited or no evidence of effect on the borrowing of first generation students and those with low EFC

- Low GPA students less likely to borrow and borrow less
  - Financial literacy? Student self-awareness?

- Limited or no evidence of effect on the borrowing by prior year loan amount
  - Low (22%): 0 ≤ \$Loans ≤ Subsidized LL
  - Moderate (58%): Subsidized LL < \$Loans ≤ Federal Direct LL
  - High (20%): \$Loans > Federal Direct LL

Interviews

- Semi-structured interviews
- 27 undergraduate students
  - Oversampled first gen students
- 30-60 minutes

	Full sample	Interview sample
First Gen	35%	59%*
Black	16%	37%*
Female	55%	67%
EFC	$18006	$9958
Pell receipt	33%	63%*
Loan	$6857	$7597
Has loan	89%	96%

Attention deferment

- Intentional inattention to the implications of their borrowing choices
- This deferred attention reveals a disconnect between when student loan programs consider students able to make long-term financial decisions (starting at the beginning of college) and when many students acknowledge their financial responsibilities.

Example interview responses (abridged)

- “Do what you’ve gotta do”

there’s not anything I could do about it [because] it is what it is, just because I need that money to stay here, to live and work and go to school here. So it sucks that it’s a lot but there’s nothing I could do about it.

- “I don’t have to worry about it until I leave”

I’m only in college once, like I’m only going to be at this point in my life once, like, let's take the trip, let’s, you know, do all this kinda stuff

- “Mom’s got it covered”

[If I was] doing everything myself than I would have looked at it harder, but knowing that FAFSA deals with my parents I just kind of look over it.

- “really cements my student depression”

[The debt letter] just kind of depresses me, because of how much money I have taken out. I mean I probably should take out less, but I don’t.

Other possible explanations for null results

- Students changed non-debt outcomes
- Students already had full information so extra data was unnecessary
- Letter was poorly designed

Non-debt outcomes?

Table 5: Effects of the Loan Notice on Other Outcomes

	Dropout	Credits taken	Federal Work Study ($)	Changed Major
	(1)	(2)	(3)	(4)
Letter	-0.000	-0.224	-4	0.002
	(0.004)	(0.176)	(6)	(0.010)

Source: Administrative data from the 2014-2015 and 2015-2016 academic years. Notes: Each coefficient is from a different estimate. Standard errors are included in parentheses. Controls for gender, race/ethnicity, first-generation status, EFC, GPA, credits earned, transfer student status, resident status, financial dependency, and the lagged dependent variable (FWS estimates only) are included but not displayed.

***$p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Was information unnecessary?

- Did not design our research to systematically compare knowledge of loans to actual borrowing among all students, but..

- ~1/2 students explicitly said they did not know how much they borrowed
  - Students were not already making informed decisions that would have rendered extra information unnecessary

- Students referred to a lack of understanding, not their lack of data (said they knew where to get it), as a hindrance to their decision making.
  - Info needed: types of loans (unsub vs. sub); interest rates; the aid allocation process; who is responsible for the loan (me or my mom?)

Could a better design improve the response?

- ~1/2 students could not recall receiving the letter or distinguish it from other communication
- Frequency of communication a reason they ignore information from FAO
  - ↑ the rate of messaging may actually ↓ students' attention

- Student suggestions
  - Change modality: Texting; social media
  - Create a song or video; Class on budgeting
  - Send letter; Website to check FA information; Have people who the student can meet with 1:1 (!)

- How to make it more active?
  - Increased contact with FAO (↑ 5%)
  - Conflicts with federal regulation? Raises costs of borrowing?

Discussion

- Overall, results suggest that the loan notice does not lead to large scale systematic changes in student borrowing behavior
  - Rule out possibility that students making fully informed decisions
  - Students intentionally inattentive
  - Challenges to designing a more active outreach
- Positives
  - More contact with FAO
  - Still to observe: repayment, default
- Costs
  - Low administrative costs (moderate startup cost, low marginal cost)
  - No observed harm (dropout, credits)

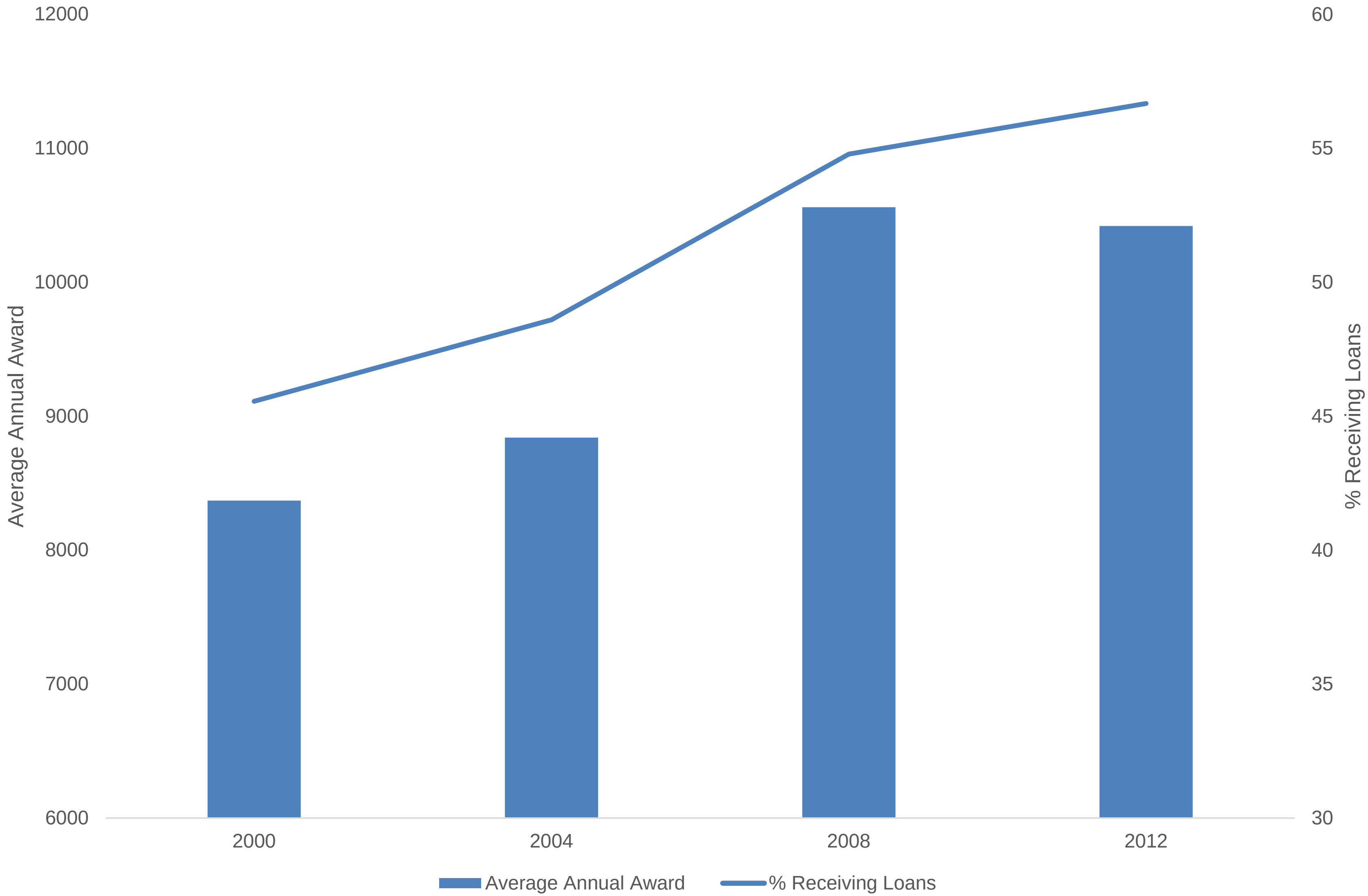
An attempt at a poem

Do students know the cost of their loans?
We think they may not know what they’ve sown;
So we sent them a letter;
In hopes decisions would be better;
But alas, information is not sufficient alone.

Rajeev Darolia
University of Missouri
573-884-5247
DaroliaR@missouri.edu

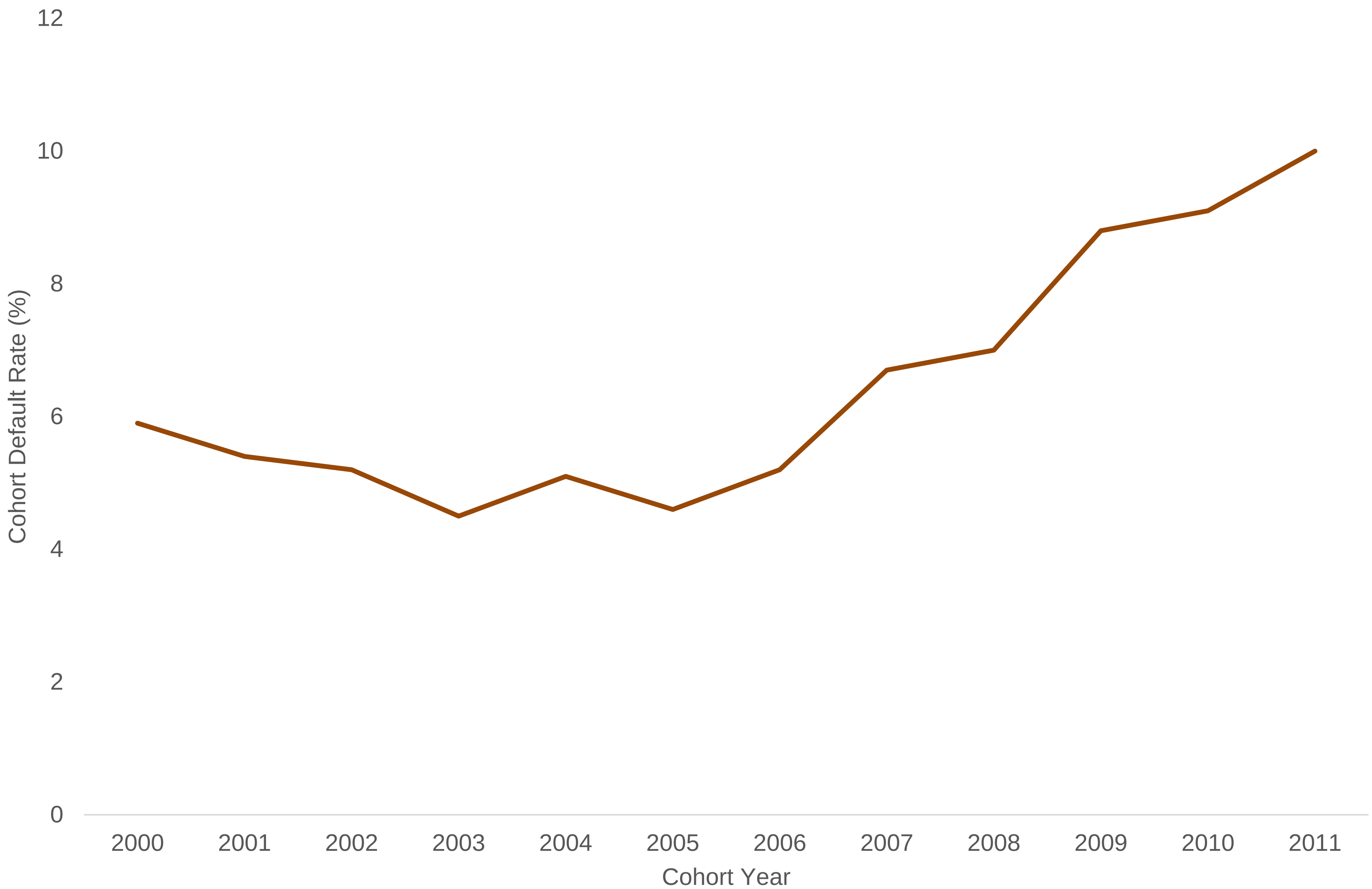
APPENDIX

Per-student undergraduate loan borrowing



Source: Baum et al. (2015). The bars represent average annual award per borrowing undergraduate student in constant 2014 dollars for selected years (on the left y-axis). The line represents the percentage of undergraduate students who borrow in each of the years (on the right y-axis).

2-year Cohort Default Rates



Source: US Department of Education. 2 year national student loan default rates. The US Department of Education transitioned to a 3-year cohort default rate starting with the 2012 cohort.

Table 1: Pretreatment Descriptive Statistics

	Treatment		Control	
	Mean	SD	Mean	SD
Male	0.45	0.50	0.45	0.50
Female	0.55	0.50	0.55	0.50
Non-Hispanic White	0.81	0.39	0.81	0.39
Asian	0.03	0.16	0.03	0.16
Black	0.17	0.37	0.16	0.37
Hispanic	0.04	0.20	0.04	0.20
Other minority	0.03	0.17	0.03	0.16
First generation	0.36	0.48	0.34	0.48
Financially dependent	0.93	0.26	0.92	0.27
State resident	0.72	0.45	0.73	0.44
Transfer student	0.14	0.34	0.14	0.35
GPA	2.85	0.78	2.85	0.78
Credits earned	53	27	53	27
Expected family contribution ($)	17759	30742	18253	30145
Pell Grant recipient	0.34	0.47	0.33	0.47
Total loans ($)	6841	4974	6872	5152
Has a loan	0.89	0.31	0.89	0.32
Federal loans ($)	5784	2791	5730	2823
Has Federal loan	0.89	0.32	0.88	0.32
Non-Federal loans ($)	1058	4104	1142	4353
Has Non-Federal loan	0.08	0.28	0.09	0.28
Count	4900		4902	

Source: Administrative data from the 2014--2015 academic year (the pretreatment period).

Table 3: Effects of the Loan Notice on Borrowing, Subgroups

	First Generation	EFC = 0	GPA < 2.5
	(1)	(2)	(3)
Loan $	-23	-116	-218
	(153)	(209)	(192)
Has a Loan	-0.008	-0.023	-0.043**
	(0.014)	(0.020)	(0.017)
N	3464	1644	2408

Source: Administrative data from the 2014-2015 and 2015-2016 academic years. Notes: Each coefficient is from a different estimate. Standard errors are included in parentheses Controls for gender, race/ethnicity, first-generation status, EFC, GPA, credits earned, transfer student status, resident status, financial dependency, and the lagged dependent variable are included but not displayed.

***p < 0.01, ** p < 0.05, * p < 0.10.

Table 4: Effect of Loan Notice by Prior Year Loan Amounts

	All Students	First Generation	EFC = 0	GPA < 2.5
	(1)	(2)	(3)	(4)
A. Loan $				
Low Borrowing	-152	-401	-248	-652
	(189)	(338)	(339)	(407)
Moderate Borrowing	44	167	354	-203
	(119)	(211)	(383)	(261)
High Borrowing	-377*	-101	-380	133
	(204)	(292)	(365)	(392)
B. Has a Loan				
Low Borrowing	-0.011	-0.005	-0.037	-0.097***
	(0.017)	(0.030)	(0.033)	(0.037)
Moderate Borrowing	-0.008	-0.005	0.045	-0.020
	(0.011)	(0.019)	(0.037)	(0.024)
High Borrowing	-0.032*	-0.020	-0.060*	-0.046
	(0.018)	(0.026)	(0.035)	(0.035)
N	9802	3464	1644	2408

Source: Administrative data from the 2014--2015 and 2015--2016 academic years. Notes: Standard errors are included in parentheses. Controls for gender, race/ethnicity, first-generation status, EFC, GPA, credits earned, transfer student status, resident status, financial dependency, and the lagged dependent variable are included but not displayed.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table A1: Experiment Setting as compared to National Averages

	University of Missouri-Columbia (1)	National Average (4-year universities) (2)
Undergraduate enrollment	27276	11223
% White	79%	58%
% Part-time	6%	20%
Average annual cost	$17238	$16127
% of students that borrow federal loans	47%	46%
6-year graduation rate	70%	42%
Repayment rate	70%	46%
3-year cohort default rate	4%	7%
Salary after attending	$46000	$33500

Sources: College Scorecard (https://collegescorecard.ed.gov/), Official Cohort Default Rates (https://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html), and the Integrated Postsecondary Education Data System (https://nces.ed.gov/ipeds/).

Appendix Table A2: Interview Sample Descriptive Statistics

	Mean	SD
Male	0.33	0.48
Female	0.67	0.48
Non-Hispanic White	0.63	0.49
Asian	0.11	0.32
Black	0.37	0.49
Hispanic	0.00	0.00
Other minority	0.04	0.19
First generation	0.59	0.50
Financially dependent	0.96	0.19
State resident	0.63	0.49
Transfer student	0.07	0.27
GPA	3.05	0.62
Credits earned	48	26
Expected family contribution ($)	9958	12845
Pell Grant recipient	0.63	0.49
Total loans ($)	7597	4449
Has a loan	0.96	0.19
Federal loans ($)	6494	2323
Has Federal loan	0.96	0.19
Non-Federal loans ($)	1103	3278
Has Non-Federal loan	0.11	0.32
Count	27	

Source: Administrative data from the 2014--2015 academic year (the pretreatment period).