

Student Loan Nudges:

Experimental Evidence on Borrowing and Educational Attainment

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Background: Federal Student Loans

U.S. outstanding student loan debt now \approx \$1.2 trillion (FRBNY)

- ▶ Exceeds auto debt (\$1T) & credit card balances (\$0.7T)

Are students “overborrowing?”

- ▶ Depends on “returns” to additional loan aid

Current institutional efforts to reduce borrowing

- ▶ Comprehensive debt reduction initiatives
- ▶ Exiting from the student loan program
- ▶ **“Offering” loans < federal eligibility limit**

This Study

Randomized controlled trials at two U.S. community colleges

Student loan “nudges”

- ▶ Financial aid award letter does/does not offer nonzero loan
- ▶ Students’ eligibility unaffected
- ▶ Variation in *framing* of student loan offers

Research questions:

1. Is student loan borrowing affected by such nudges?
2. Do student loans increase attainment?

Setting: Community Colleges

Two-year, open-access, degree granting public institutions

Nearly half of post-secondary students in the U.S.

Plurality of Pell Grant recipients (low-income students)

Low odds of success

Setting: Federal Student Loans

Students at participating colleges can borrow from fed govt

- ▶ Borrowing limits uniform within class standing-dependency

Colleges *choose* how much (if any) loan aid to offer to students

- ▶ 50% of community colleges do not initially “offer” loans
 - ▶ Why? Colleges may be balancing affordability against penalties for high default rates

Offer \neq eligibility

- ▶ May affect students' choices through:
 - ▶ Recommendation?
 - ▶ Information about eligibility?

Example: No loans offered

Award Letter	
Academic Year	2013-2014
Student	JOE TEST STUDENT
Los Angeles Mission College	Year: 2013-2014
JOE TEST STUDENT	
Award process date: 6/1/2013	
ISIR Transaction Number: 03	
*** Cost of Attendance ***	
Tuition and fees:	\$1,218
Books and Supplies:	\$1,710
Room and Board:	\$4,518
Transportation:	\$1,179
Personal Expense:	\$3,096
Dependent Care:	\$0
== Total Cost of Attendance:	\$11,721
*** Resources ***	
Expected Family Contribution:	\$0
Other Outside Aid:	\$0
== Total Resources:	\$0
== Estimated Need:	\$11,721
*** Financial Aid Awards ***	
Pell Grant:	\$5,635
BOGG - Board of Gov Fee Waiver	\$936
Cal Grant B	\$1,473
Federal Work Study	\$2,000
== Total Financial Aid:	\$10,044
== Unmet Need:	\$1,677

Example: Financial Aid Shopping Sheet



The City University of New York - Baruch College
Chris Dempsey, 5555

7/8/1988

Costs in the 2013-14 year

Estimated Cost of Attendance

\$X,XXX / yr

Tuition and fees	\$ X,XXX
Housing and meals	X,XXX
Books and supplies	X,XXX
Transportation	X,XXX
Other education costs	X,XXX

Grants and scholarships to pay for college

Total Grants and Scholarships (Gift Aid; no repayment needed)

\$X,XXX / yr

Grants from your school	\$ X,XXX
Federal Pell Grant	X,XXX
Grants from your state	X,XXX
Other scholarships you can use	X,XXX

What will you pay for college

Net Costs

(Cost of attendance minus total grants and scholarships)

\$X,XXX / yr

Options to pay net costs

Work options

Work-Study (Federal, state, or institutional) \$ X,XXX

Loan Options*

Federal Perkins Loans	\$ X,XXX
Federal Direct Subsidized Loan	X,XXX
Federal Direct Unsubsidized Loan	X,XXX

Institutional 1st
Year Retention
Percentage of Full
Time Freshman



80.3%

Low Medium High

Degrees Awarded 2011-2012: 2,716



Loan Default Rate

Percentage of borrowers
entering repayment and
defaulting on their loan

3.2%

This institution

9.8%

National

Median Borrowing

Students at Baruch College typically borrow \$9,309 in Federal loans for their undergraduate study. The Federal loan payment over 10 years for this amount is approximately \$107.13 per month. Your borrowing may be different.



Community College Characteristics by Loan Offer Policies

	(1) Both	(2) Subsidized	(3) Neither
Number of institutions	323	19	454
Average undergraduate enrollment	14,037	18,483	11,642
Enrollment weighted percent of institutions	0.45	0.03	0.52
Offers BA degree(s)	0.12	0.05	0.07
Pell Grant aid			
Percent	0.40	0.36	0.37
Average receipt	\$3,663	\$3,784	\$3,670
Federal loan aid			
Percent	0.30	0.26	0.16
Average receipt	\$5,338	\$4,231	\$5,097

Should Students Borrow More? Less?

- ▶ Access to federal student loans may increase community college students' attainment (Dunlop, 2013; Wiederspan, 2015)
- ▶ Average returns to college are well worth monetary cost (Avery and Turner, 2012)
- ▶ However, subsidized loan take-up ~80% (Cadena and Keys, 2013), far lower in community colleges (Marx and Turner, 2015)
- ▶ Given the variation in college students' circumstances, likely some students could benefit from borrowing more while others could benefit from borrowing less
 - ▶ One-size-fits-all packaging policy could be improved upon!

Experimental Sites

- ▶ 2 (anon) community colleges in different U.S. States
 - ▶ Recruited based on enrollment
- ▶ In prior years:
 - ▶ College A offered a loan
 - ▶ College B did not offer a loan
- ▶ This year, student-level randomization of loan offers

Experimental Design

Today: results from College A only

- ▶ Sample: all applicants
- ▶ Treatment group: offer of \$3500 (<30 cr) or \$4500 (30+ cr)
- ▶ Control group: \$0 offer (+ email on how to request loan)
- ▶ Electronic award letter, no additional requirements

Experimental Design

Stratified randomization at student level

- ▶ New vs. returning
- ▶ Freshman vs. sophomore (30+ credits earned)
- ▶ Dependent vs. independent
- ▶ With vs. without outstanding student loan debt
- ▶ *EFC* (incl. Pell Grant eligibility)

College A Award Letter

My Award Package By Aid Year 2015-2016 Processing Year

General Information **Award Overview** Resources/Additional Information

[Print](#)



Your award may be adjusted due to your Satisfactory Academic Progress (SAP) status, receipt of additional external or [REDACTED] scholarships, grants, or loans, or changes in your enrollment level.

Need Calculation

Cost of Attendance	\$13,504.00
Estimated Family Contribution	\$1,700.00
Initial Need	\$11,804.00
Outside Resource	\$.00
Need	\$11,804.00

Expected Enrollment

Status

Full Time

Cost of Attendance

Books and Supplies	\$1,700.00
Institutional Fees	\$140.00
Personal Expenses	\$1,140.00
Room and Board	\$6,000.00
Out of County Tuition & Fees	\$3,364.00
Transportation	\$1,160.00
Total:	\$13,504.00

Cumulative Loan Information as of 23-APR-2015

Loan Type	Amount
Subsidized	\$5,643.00
Unsubsidized	\$8,934.00

Financial Aid Award by Term for the 2015-2016 Processing Year

Fund	Fall 2015		Spring 2016		Total
	Status	Amount	Status	Amount	
Federal Pell Grant	Accepted	\$2,063.00	Accepted	\$2,062.00	\$4,125.00
Direct Subsidized Loan	Offered	\$1,750.00	Offered	\$1,750.00	\$3,500.00
Creative Arts Scholarship Fund	Offered	\$5.00	Offered	\$5.00	\$10.00
Totals		\$3,818.00		\$3,817.00	\$7,635.00



If you have questions regarding the above information, please contact the Financial Aid office.

College A Award Letter

Loan offered

Financial Aid Award by Term for the 2015-2016 Processing Year

Fund	Fall 2015		Spring 2016		Total
	Status	Amount	Status	Amount	
Federal Pell Grant	Accepted	\$2,063.00	Accepted	\$2,062.00	\$4,125.00
Direct Subsidized Loan	Offered	\$1,750.00	Offered	\$1,750.00	\$3,500.00
Creative Arts Scholarship Fund	Offered	\$5.00	Offered	\$5.00	\$10.00
Totals		\$3,818.00		\$3,817.00	\$7,635.00

Loan not offered

Financial Aid Award by Term for the 2015-2016 Processing Year

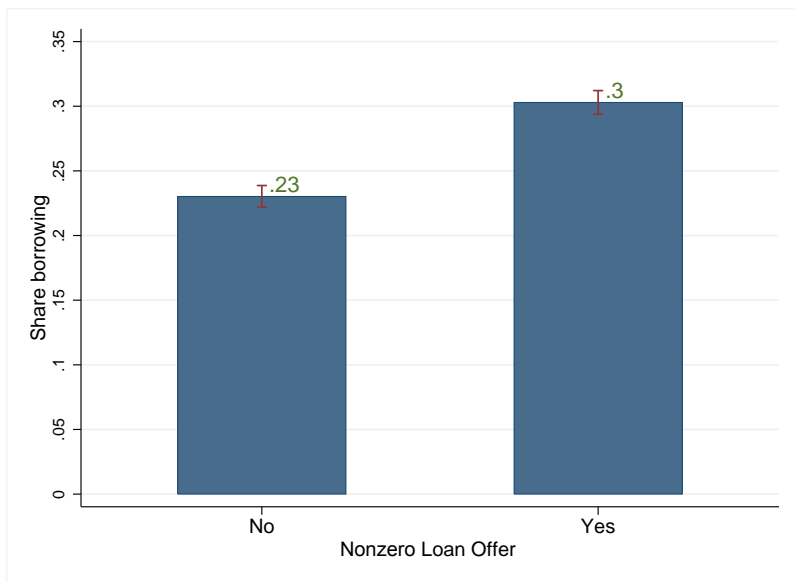
Fund	Fall 2015		Spring 2016		Total
	Status	Amount	Status	Amount	
Federal Pell Grant	Accepted	\$2,063.00	Accepted	\$2,062.00	\$4,125.00
Direct Subsidized Loan	Offered	\$0.00	Offered	\$0.00	\$0.00
Creative Arts Scholarship Fund	Offered	\$5.00	Offered	\$5.00	\$10.00
Totals		\$2,068.00		\$2,067.00	\$4,135.00

Student Characteristics

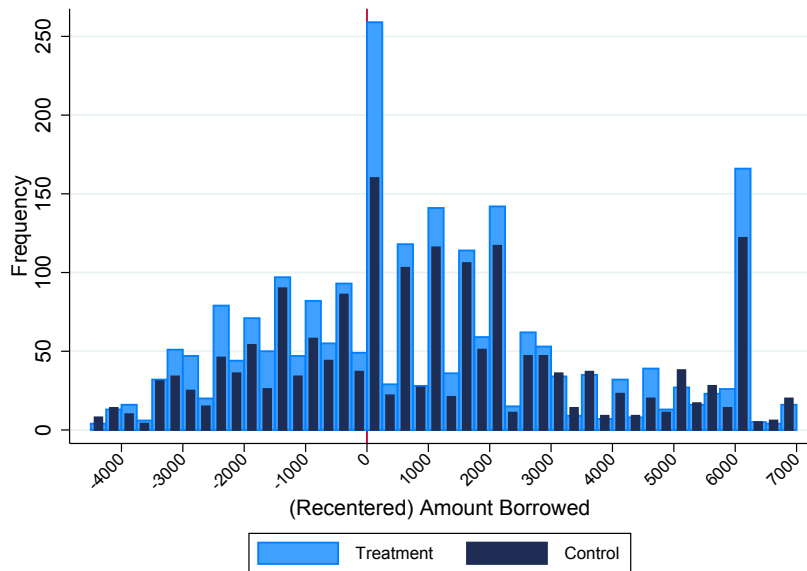
Characteristic	College A	
	Control mean (sd)	Treatment effect (se)
<30 credits earned	0.64 (0.10)	0.0003 (0.0004)
New	0.28 (0.09)	0.0006+ (0.0003)
Independent	0.59 (0.10)	0.0003 (0.0004)
Outstanding loan debt	4170 (31)	0.1 (62)
Expected family contribution (EFC)	6633 (349)	217 (698)
Pell Grant aid	3628 (10)	11 (20)
All other grant aid	120 (3)	0.04 (5)
Test of joint significance (p -value)		0.995
Number of observations	9,671	9,681

Impacts on Borrowing

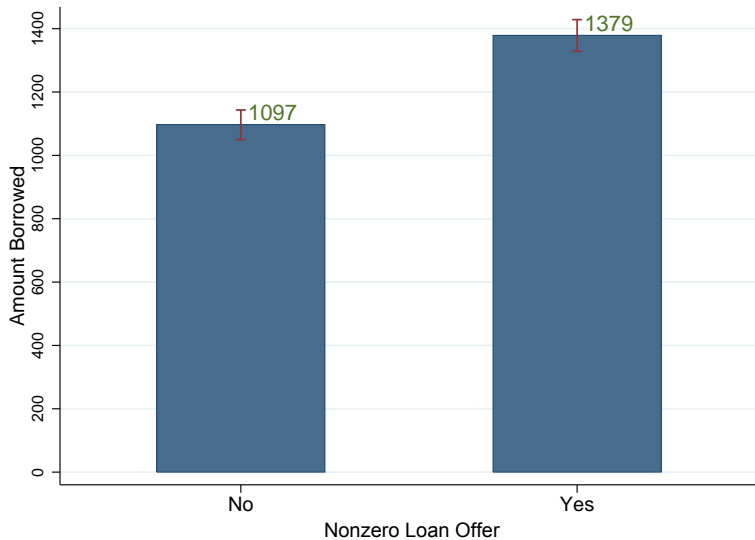
Loan Take-up



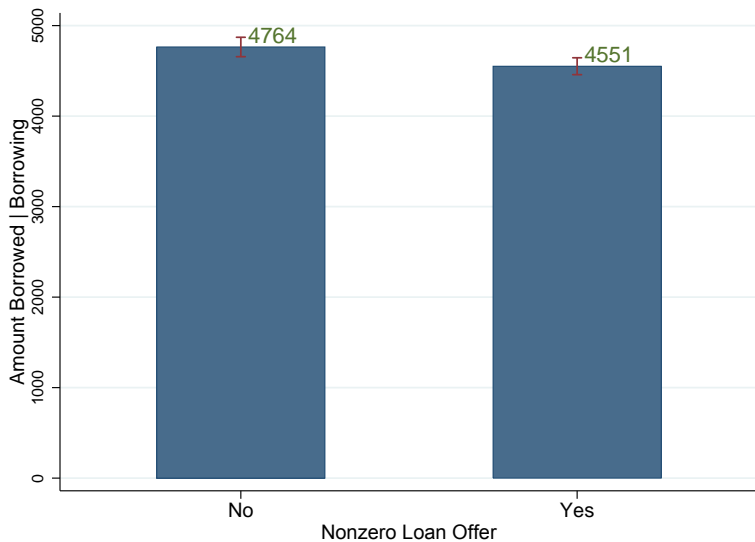
The Distribution of Loan Aid | Borrowing



Amount Borrowed



Conditional Amount Borrowed



Contextualizing Borrowing Results

Effects of nonzero loan offers on borrowing at College A

- ▶ Loan take-up increases by 9pp (39%)
- ▶ Amount borrowed increases by approx. \$300 (32%)
- ▶ Conditional on borrowing, students who are packaged with loans borrow *less*
- ▶ Significantly more likely to borrow exactly \$3500/\$4500

Impacts similar in size (or larger) than reductions achieved by more complicated and costly interventions:

- ▶ *Indiana University*: 16% reduction in aggregate borrowing (Kennedy 2015)
- ▶ *Montana State University*: 33% reduction in borrowing (Schmeiser et al. 2015)

Need to weigh changes in borrowing against effects of loan aid on attainment

Attainment Outcomes

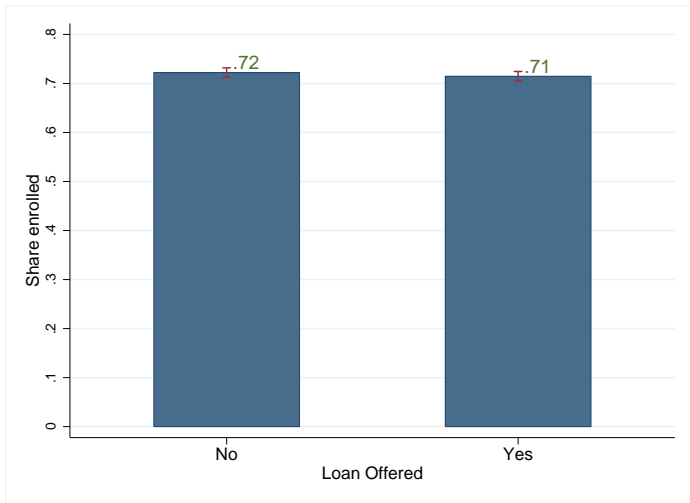
Ultimately interested in degree/credential receipt

Outcomes currently available:

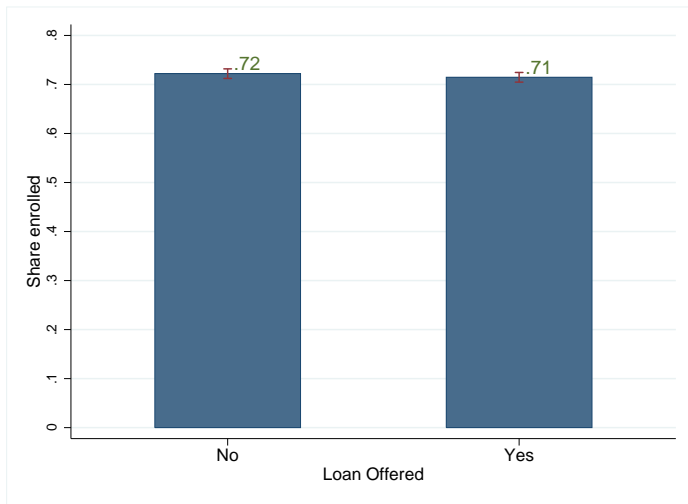
- ▶ Fall semester credits attempted
- ▶ Fall semester credits attempted \geq key thresholds $\{0, 6, 12\}$
- ▶ Fall semester credits earned
- ▶ Fall semester GPA
- ▶ Spring semester credits attempted

Will receive end of spring semester outcomes very soon!

Fall Enrollment



Fall Enrollment



- ▶ 95% CI excludes impacts larger than a 4% decrease in enrollment and a 1% increase in enrollment
- ▶ Condition on enrollment in remainder of analyses

Impacts of Loan Aid on Fall Attainment

	(1) Credits attempted	(2) ≥ 6 credits attempted	(3) ≥ 12 credits attempted	(4) Credits earned	(5) GPA	(6) Spring enrollment
Loan aid (\$1k)	0.306 (0.139)*	0.041 (0.013)**	0.024 (0.019)	0.459 (0.230)*	0.123 (0.058)*	0.007 (0.021)
Observations	11,774	11,774	11,774	11,774	11,774	11,774
Control mean	10.06	0.899	0.448	7.455	2.344	0.724

Summary of Main Attainment Results

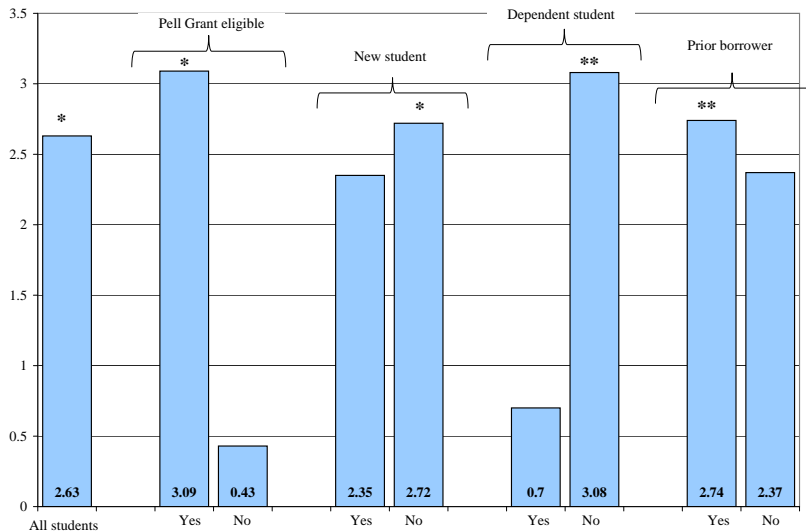
Students induced to borrow \$4000 loan by nudge:

- ▶ Earned 1.8 (24%) more credits in Fall 2016
- ▶ Increased fall GPA by 0.5 points (21%)

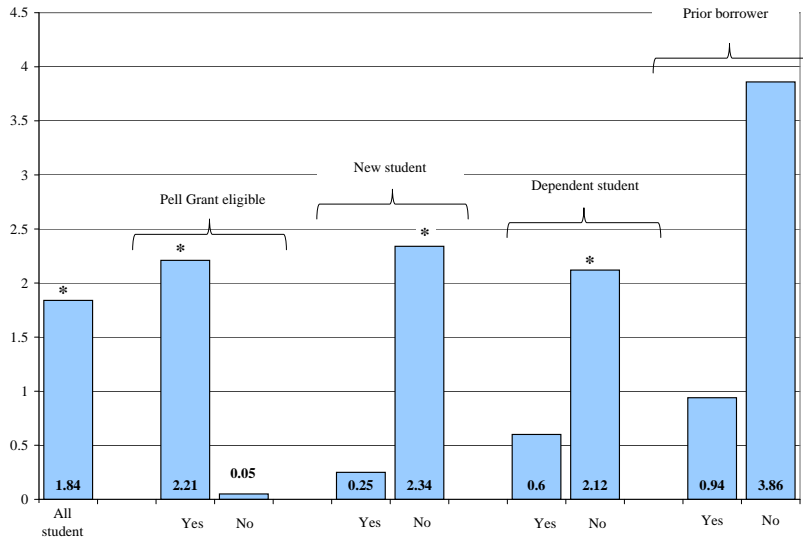
Compare to:

- ▶ *CUNY ASAP*: 2.1 additional credits earned in first semester, \$3.9k per student per year (MDRC 2012, 2015)
- ▶ *Opening Doors incentive payments*: largest impacts on credits earned 0.4 per \$1k in NYC (MDRC 2013)

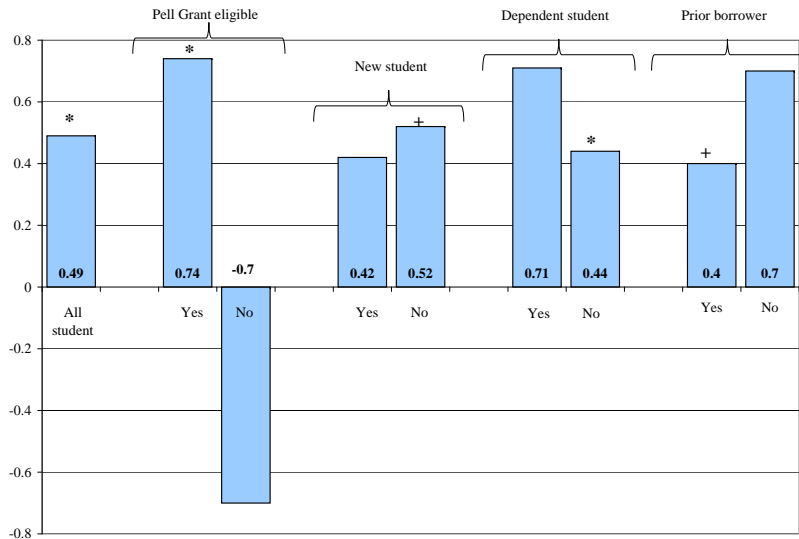
Effect of Adtl \$4k Borrowed on Total Credits Attempted



Effect of Adtl \$4k Borrowed on Fall Credits Earned



Effect of Adtl \$4k Borrowed on GPA



Next Steps

Ongoing work with current partners

- ▶ College A: end of spring attainment outcomes
- ▶ College B: full year attainment outcomes, F17 intervention around in-person counseling

Next Steps

Phase 2 work with future partners

- ▶ Ultimate goal: develop loan packaging practices that are *tailored to students' specific needs* and encourage *active and informed decision-making*
- ▶ Ideally, all students would meet with a financial counselor before making borrowing decisions
 - ▶ Not feasible given most schools' resource constraints
- ▶ Potential interventions:
 - ▶ Prompting students to actively choose their own desired loan amount (fill-in-the-blank or drop-down menu)
 - ▶ Providing eligibility information or a budgeting tool directly in the award letter
 - ▶ Varying the amount of loan aid offered

Next Steps

- ▶ Currently recruiting community colleges for Fall 2016 experiments
- ▶ Funding from Russell Sage Foundation

Thank you!