

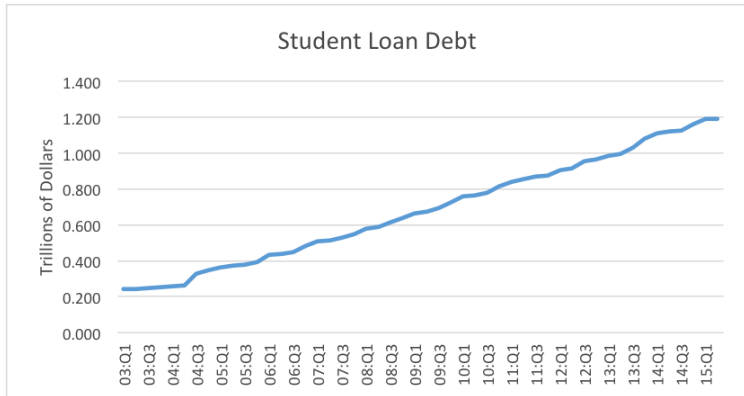
Can Financial Education in High School Affect Student Loans?

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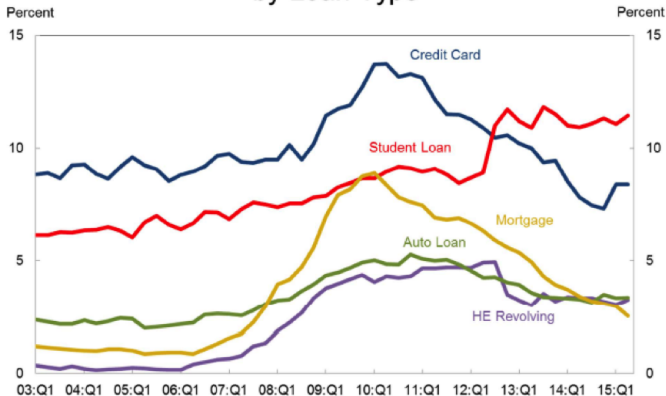
Motivation

Student loan debt currently \$1.3 trillion (FRBNY).



Motivation

Percent of Balance 90+ Days Delinquent by Loan Type



Source: FRBNY Consumer Credit Panel/Equifax

Motivation

Do students have enough information to make borrowing decisions?

- The choice of student loans is among first large financial decision young adults make.
- Low income, high ability students are less likely to enroll, suggesting “too little” borrowing (Lochner and Monge-Naranjo 2011, Johnson 2013)
- Default rates suggests “too much” borrowing.

Motivation

Do students have enough information to make borrowing decisions?

- Complex, simultaneous decisions (enroll? borrow/work? major? time to degree?).
- FAFSA and the borrowing process are confusing (Dynarksi and Scott-Clayton 2006; Long, Oreopoulos and Sanbonmatsu 2009).

Policy Response

One potential response is personal finance coursework in high school:

- Could allow students to re-calibrate their initial loan amounts.
- More actively find scholarships.
- Results on the effectiveness of financial education in high school is mixed (Bernheim et. Al., 2001; Tennyson and Nguyen 2001; Cole et. Al 2013; Brown et. Al. 2016; Urban et. Al. 2014)

Research Question

Question: Can access to financial education change students' initial financial aid packages?

Mechanisms

Topic	Prediction
Interest Rates	Take out more federal loans
Mortgages	↓ student loans if concerned about repayment ↑ student loans if investing more in human capital
Budget	↓ student loans if don't need max offered ↑ student loans if need max offered (or more)
Information	Fill out FAFSA, more scholarships

Mechanisms

- Not sure if loan amounts should go up or down.
- Define other areas where financial education could change behavior:
 - Filling out the FAFSA
 - Obtaining grants (and more \$s in grants)
 - Obtaining scholarships (and more \$s in scholarships)

Outline

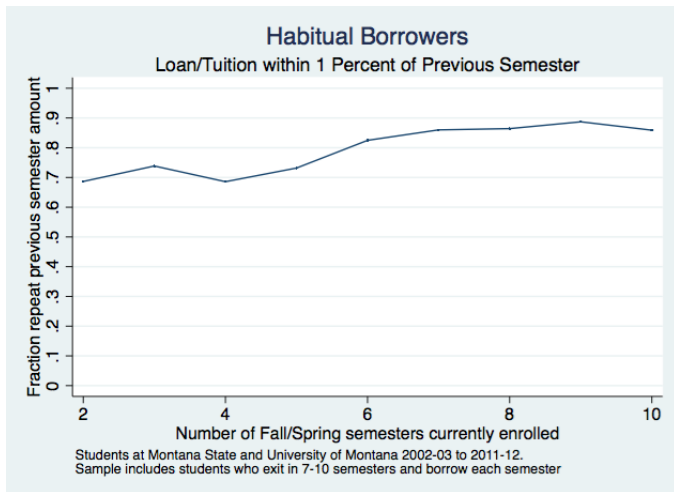
- MUS:** How does *offering* financial education in HS affect student aid packages across individuals?
- IPEDS:** How does *requiring* financial education in HS affect student aid packages across universities?
- FAFSA:** How does *requiring* financial education in HS affect FAFSA completion at the state level?

MUS Data

Montana University System (MUS) administrative data

- Information on academic and student loans for all students who attend MT public schools and universities.
- Keep all in-state undergraduate students.
- Keep only students at the University of Montana and Montana State University.
- Use data from 2000-2013 for students going straight from HS to colleg.e
- Determine whether or not the student's HS offered personal finance.
 - 41% of students in school that offered PF.
 - usually taken as junior or senior.

Borrowing is Persistent Over Time



Methods

We employ a difference-in-difference (DD) strategy to estimate the effect of offering financial education on student loans:

- Compare students within the same high school before and after the course was offered.
- Compare students across high schools that always or never offered the course over time.
- Include high school fixed effects, year fixed effects, and cluster standard errors at high school level.

Loan Amount Results

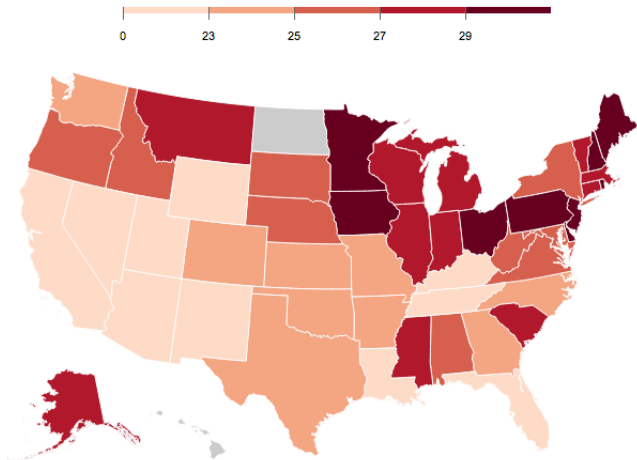
	Get Loan	$\frac{\text{Loan}}{\text{Tuition}}$	Cond'l Loan Amt
All	-0.012 (0.014)	-0.014 (0.013)	0.026 (0.026)
Low GPA	0.007 (0.015)	-0.001 (0.014)	0.041 (0.032)
High GPA	-0.032* (0.016)	-0.030* (0.014)	0.009 (0.033)
Low Inc	-0.007 (0.016)	-0.004 (0.016)	0.067* (0.026)
High Inc	-0.016 (0.012)	-0.029** (0.010)	-0.027 (0.040)
Mean	0.516	0.470	1.97
Students	24,229		

Non-Loan Aid Results

	Get Non-Loan	Non-loan Aid \$s	Work Study
All	0.002 (0.011)	0.070+ (0.036)	0.004 (0.003)
Low GPA	0.002 (0.011)	0.021 (0.035)	0.001 (0.004)
High GPA	0.004 (0.011)	0.147* (0.059)	0.007+ (0.004)
Low Inc	0.001 (0.013)	0.074 (0.046)	0.000 (0.004)
High Inc	0.009 (0.010)	0.099* (0.048)	0.007 (0.005)
Mean Students	0.634 24,229	1.495	0.0173

Context

Average 4-year graduate debt, in thousands of dollars



IPEDS

Use a DD strategy to estimate the effect of required financial education on student loans:

- Compare student aid in schools within states that *required* a course in financial education.
- Compare student aid in schools within states *without* financial education requirements.
- Include institution fixed effects, year fixed effects, and cluster standard errors at state level.

IPEDS Results

	% Fed grant	ln(loans \$)	ln(\$ Fed grant)
<u>Private 4-year</u>			
PF	0.685 (0.579)	-0.000135 (0.0144)	0.0273** (0.0111)
N	16987	15761	16549
<u>Public 4-year</u>			
PF	0.0973 (0.578)	0.00845 (0.0166)	0.0315*** (0.0112)
N	8986	8770	8945
<u>4-year, Over 80% In State</u>			
PF	-0.679 (0.685)	0.0121 (0.0206)	0.0378*** (0.0139)
N	6718	6558	6702

IPEDS: 2 year schools

Recent work has shown that default rates are highest at for-profit (26%) and community colleges (28%) (Looney and Yannelis, 2015).

- Next, we focus on 2-year schools to see if their behaviors are different after states implement personal finance mandates.

IPEDS Results

	% Fed grant	ln(loans \$s)	ln(\$ Fed grant)
<u>2-year, All</u>			
PF	0.637 (0.584)	0.0834*** (0.0214)	0.100*** (0.0143)
N	14111	11628	13946
<u>2-year, Over 80% In State</u>			
PF	0.198 (0.610)	0.0899*** (0.0226)	0.102*** (0.0150)
N	11956	9754	11902

FAFSA

We want to look at the effect of financial education on filling out the FAFSA.

- In some states, plan to incorporate FAFSA directly into curriculum.
- If this is the case, should see increased rates of participation.

FAFSA

- Use state by year data on FAFSA completion.
- Look at variation in states' personal finance course requirements.
- Cluster standard errors by state.

FAFSA

No changes in filling out FAFSA

	ln(dep apps)	ln(ind apps)	ln(apps)
PF	-0.0814 (0.148)	-0.0879 (0.191)	-0.0736 (0.171)
N	350	350	350

Conclusions

More to be done on financial education and student loans:

- Need more local data to see how education affects loans at relevant institution
- What *should* students learn in HS?
- If highest ability/highest income students are obtaining scholarships is this optimal?