The Power of Active Disclosure: The Effect of Self-Certification on the Private Student Loan Market

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The views expressed are those of the author and do not necessarily reflect those of the Consumer Financial Protection Bureau or the United States.

Mandated Disclosures

- Mandated Disclosures
 - Effectiveness (Ben-Shahar and Schneider 2010, Willis 2013)
 - Design (Lacko and Papalardo 2010, Bertrand and Morse 2011)
- Active Disclosure
 - Requires consumer to actively engage with the substantive content through a worksheet-like portion of the disclosure
- Tools from Mathematics Education
 - Worked examples (Kalyuga et al. 2001)
 - Procedural guidance (Chi et al. 1989, Eiriksdottir and Catrambone 2011)
 - Familiar context (Holling et al. 2008, Koedinger and Nathan 2004)



Research Questions

- To what extent are active disclosures effective in affecting consumer behavior?
- To what extent does the Department of Education's 2009 Self-Certification Form affect the use of federal and private student loans?
 - Implemented on Feb 14, 2010
 - Intended to limit overborrowing
 - Intended to make consumer to interact with form



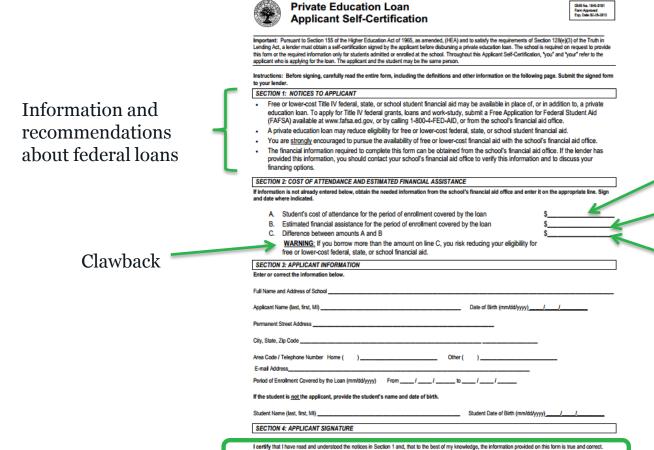
Federal vs. Private Student Loans

- Originated or guaranteed by Federal government.
- Pricing and eligibility set by policy; entitlement based on cost of attendance and other aid.
- Nondischargeable in bankruptcy; formalized alternative repayment plans.

- Originated by private financial institutions, may be securitized.
- Underwritten based on borrower and co-borrower characteristics, risk priced.
- Nondischargeable in bankruptcy.



Self-Certification Form



Cost of Attendance

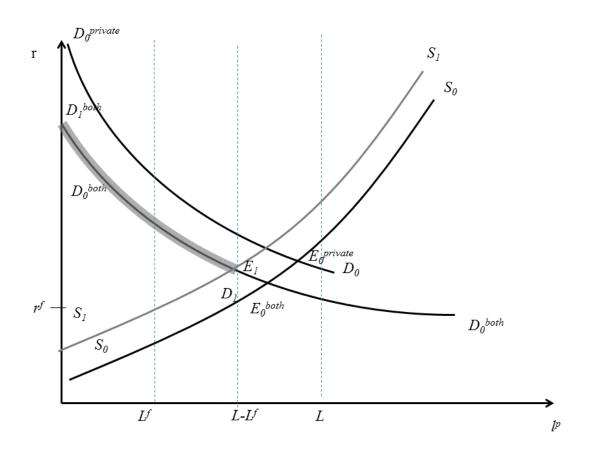
Financial Assistance

Difference

Financial aid offices required to provide information upon request



Effects of Self-Cert on PSL





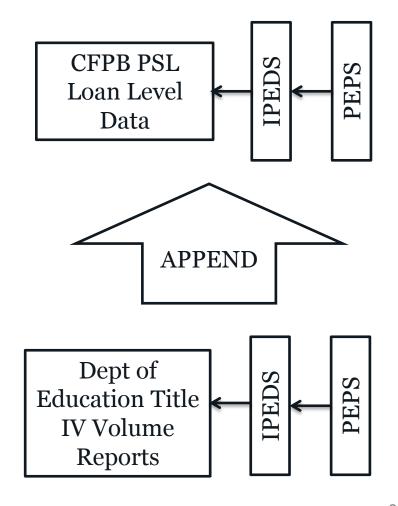
Predictions

- 1. The number of PSLs should decrease and the number of FSL should increase.
- 2. Total PSL dollars should decrease.
- 3. The effect on loan size for PSL and FSL are ambiguous.
 - Loans greater than the line C amount should not be originated.
 - 2. Consumers may substitute FSL for PSL along the intensive margin.



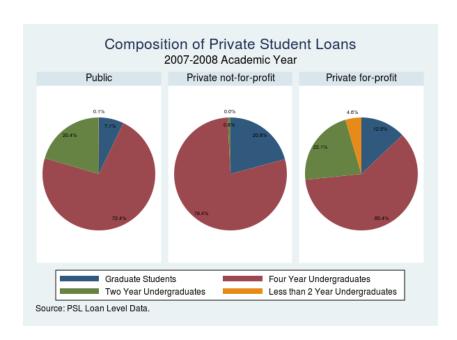
Data

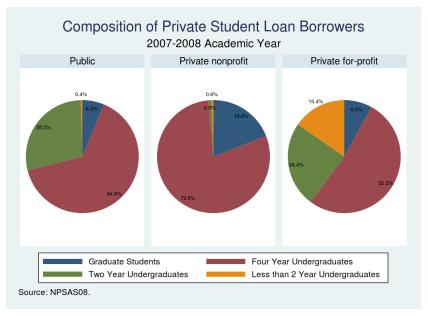
- CFPB PSL Loan Level Dataset
 - 9 largest PSL lenders
 - De-identified lenders and borrowers
 - Loan level observations for all PSL originations between 2005Q1-2011Q4
- Title IV Volume Reports
- PEPS
- IPEDS
- NPSAS 2008, 2012





Comparison of PSL Loan Level to NPSAS Data







Loan Amounts, 2007-2008 Academic Year

	PSL Loan Level Dataset	NPSASo8
Public		
Four Year Undergraduates	8,964	6,248
Two Year Undergraduates	8,988	3,723
Graduate Students	10,024	6,470
Less Than Two Year	7,298	4,297
Private, Non-Profit		
Four Year Undergraduates	12,612	9,408
Two Year Undergraduates	10,922	6,875
Graduate Students	16,339	9,249
Less Than Two Year	10,812	5,939
For-Profit		
Four Year Undergraduates	11,187	6,321
Two Year Undergraduates	10,563	8,687
Two Year Undergraduates	11,450	6,016
Less than Two Year	8,491	4,863

Loan amounts reported in nominal dollars. CFPB Loan Level Dataset estimates at the loan level and NPSASo8 estimates at the individual level. NPSASo8 observations weighted using WTAooo.



PSL Data Means Before the Self-Certification Form

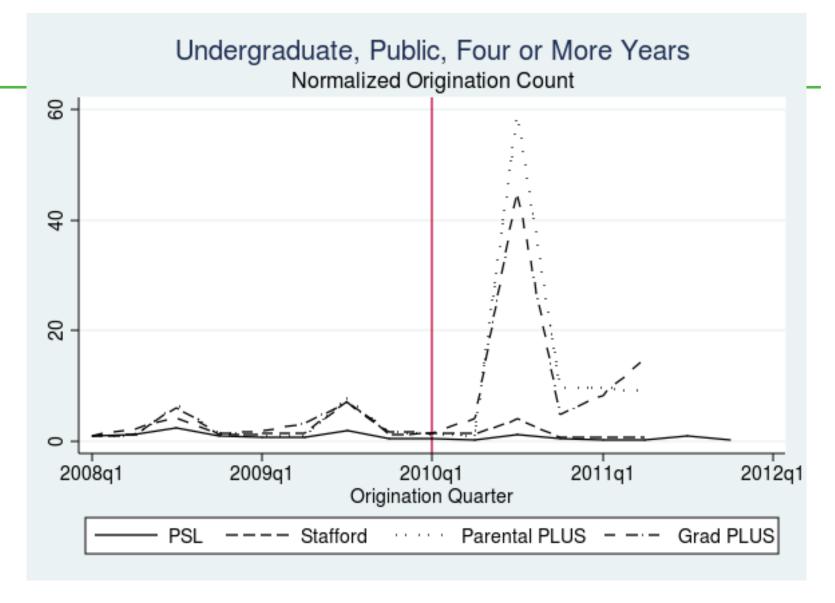
Four Year	Undergraduate		
	Public	Private	For-Profit
Total Enrollment	13,528	2,656	2,405
In District Tuition and Fees	5,522	18,741	14,924
PSL Originations	1,094	331	1,418
Average PSL Original Balance	5,161	6,357	6,299
PLUS Loan Originations	169	53	78
Average PLUS Original Balance	6,684	9,519	5,527
Subsidized Stafford Originations	1,319	379	1,644
Subsidized Stafford Original Balance	3,648	4,422	4,001
Unsubsidized Stafford Originations	1,333	386	1,769
Subsidized Stafford Original Balance	4,152	5,179	4,864



Empirical Strategy

- Loan Level Data and Title IV Volume Reports
 - Difference-in-difference
 - FSL as controls for PSL
 - Bias correction for substitution between PSL and FSL
 - School level analysis, weighted by enrollment
 - Propensity score matching
 - Strong ignorability assumption consistent with automated underwriting
- Borrower level analysis with NPSAS
 - Propensity score matching
 - Multinomial logit
 - Loan amount regressions







PSL Loan Level Dataset and Title IV Volume Reports

	Four Year Undergraduates		
	Public	Private	For-Profit
nel A: Diffe	erence-in-Difference	Results	
	-0.846***	-0.966***	-0.972***
	(0.00)	(0.000)	(0.000)
2	0.632	0.592	0.750
	-0.714***	-0.442***	-0.957***
	(0.000)	(0.000)	(0.000)
2	0.566	0.491	0.698
el B: Prope	nsity Score Matching	g Results	
	-216.3716***	-762.1033***	545.0620***
	(41.6269)	(63.7422)	(188.8903)
	0.0125***	0.0126***	0.0194***
	(0.0002)	(0.0002)	(0.0007)
	2	Public nel A: Difference-in-Difference -0.846*** (0.00) 2	Public Private nel A: Difference-in-Difference Results -0.846*** -0.966*** (0.00) (0.000) 2 0.632 0.592 -0.714*** -0.442*** (0.000) (0.000) 2 0.566 0.491 nel B: Propensity Score Matching Results -216.3716*** -762.1033*** (41.6269) (63.7422) 0.0125*** 0.0126***

Difference-in-difference estimates include controls for tuition and fees, Carnegie classification, cohort default rate, HBCU or HSI status, log total enrollment, and school fixed effects.

Propensity score matching on having a co-borrower, year in school, school type, FICO score intervals, distribution channel, tuition and fees, quarter of origination, and enrollment status.



NPSAS Loan Types

	No Loans	FSL Only	PSL Only	Both FSL and PSL
Population Proportions				
NPSAS 2012	57.74%	36.54%	1.49%	4.23%
NPSAS 2008	60.89%	25.44%	3.57%	10.10%
Propensity Score Matched S	Sample			
2012 Actual	56.93%	37.22%	1.32%	4.53%
2008 Matched	42.41%	34.19%	3.99%	19.40%
Untreated (2008)	109010			
Treated (2012)	68010			
Pseudo-R2	0.2148			
* p>0.1, **p>0.05, ***p>0	.01.			

Standard errors in parentheses.

Source: NPSAS 2008 and NPSAS 2012.

Propensity score matching with 1 neighbor based on race, age categories, dependency status, parental education, institution region, a polynomial in adjusted gross income, and student budget minus all other grants (NETCST3).

An individual is considered to have PSL if PRIVLOAN>0 and is considered to have FSL if TFEDLN2>0 or TFEDLN>0.

Obervations are weighted using the treated observation weights (WTA000) and all observation counts rounded to the nearest 10.



Loan Types Borrowed, NPSAS 2012 vs. 2008

	Four Ye	Four Year Undergraduates	
	(1)	(2)	
	Logit	Multinomial Logit	
Has a PSL	0.3590***		
	(0.0131)		
FSL Only		1.4984***	
		(0.0368)	
FSL and PSL		0.4355***	
		(0.0177)	
PSL Only		0.4728***	
		(0.0428)	
		0.0389	
N	83650	83650	
Pseudo-R2	0.0480	0.0389	
* p>0.1. **p>0.05. ***p>0.01.			

p>0.1, **p>0.05,

Standard errors in parentheses.

Reported coefficients are relative risk ratios for multinomial logit specifications and odds ratios for logit specifications. Source: NPSAS 2008 and NPSAS 2012.

All models include a control for student budget minus all other grants (NETCST3) as well as dummies for race (RACE) and age category (AGECAT: <24, 24-29, 30+).

An individual is considered to have PSL if PRIVLOAN>0 and is considered to have FSL if TFEDLN2>0 or TFEDLN>0. Student level is from the BENLADEG variable harmonized between surveys: professional and other doctoral programs are combined in the NPSAS2012 for consistency with NPSAS2008.

Sample restricted to citizens and permanent residents.

Observations weighted by WTA000.



Dollar Amounts Borrowed, NPSAS 2012 vs 2008

	Four Voor Undergraduates		
	Four Year Undergraduates		
	(1) OLS	(2) SUR	(3) SUR Tobit
DCI Domossina			
PSL Borrowing	-1074.0233***	-523.1358***	-7475.1761***
	(37.3848)	(29.0797)	(265.6375)
R2	0.0575	0.0863	
FSL Borrowing	1150 5009***	0500 0065***	1905 1005***
ral bullowing	1170.7098***	2532.9067***	1837.1325***
_	(57.7169)	(57.8198)	(103.4876)
R2	0.1015	0.3551	
Total Borrowing	96.6865	2009.7709***	
	(68.1997)	(66.5963)	
R2	0.1170	(0) 0)	
N	83650	88090	83650
* p>0.1, **p>0.05, ***p>0.0	• •	•	3 3

Standard errors in parentheses.

Reported coefficients are the coefficient on a binary variable for appearing in the 2012 survey from an OLS regression, where zeros are included in the outcome variable.

Source: NPSAS 2008 and NPSAS 2012.

All models include a control for student budget minus all other grants (NETCST3) as well as dummies for race (RACE) and age category (AGECAT: <24, 24-29, 30+).

Outcome variables are PRIVLOAN, TFEDLN2/TFEDLN, and the sum of PSL and TFEDLN2/TFEDLN.

Student level is from the BENLADEG variable harmonized between surveys: professional and other doctoral programs are combined in the NPSAS2012 for consistency with NPSAS2008.



Findings

- PSL lending decreased as a result of the self-certification form
 - The number of PSL decreases relative to FSL
 - □ Total PSL volume decreases relative to FSL
 - □ FSL volume and dollar amounts increase
- Effects on average PSL size vary by program type
 - Average PSL size increases for for-profit institution undergraduates while it decreases for not-for-profit undergrads. This is inconsistent with the position that for-profit students borrowed more than their financial need prior to the self-cert form.
- Price of PSL increased
- The magnitude of the effects suggests that compliance with the selfcertification form was non-trivial

