

What Predicts Differences in Student Borrowing Across College Sectors?

Stephanie Riegg Cellini
George Washington
University & NBER

Rajeev Darolia
University of Missouri

Understanding Student Debt Conference
Philadelphia, PA
August 2016

Motivation

- Student loan debt a key policy issue
 - Disconnect between rhetoric and evidence
- For-profit (FP) postsecondary education sector
 - Has grown tremendously over the last decade.
 - 3X enrollment 2000-2011, 2.5M students
 - FPs seemingly dependent on federal student aid.
 - 80% FP students get fed aid, 70% FP revenue from fed aid
 - FP student default rates are higher than in other sectors.
- Policy debates: Gainful Employment regulations; “Skin in the game” risk sharing

Overview

- Establish trends in student borrowing across college sectors over the last decade (1996-2012).
- Compare of FP student borrowing patterns to other sectors
 - Can these differences be explained by:
 - Student demographics
 - Educational costs
 - Student financial resources/need
 - Work behavior
- Discuss possible reasons for unexplained differences

Related literature

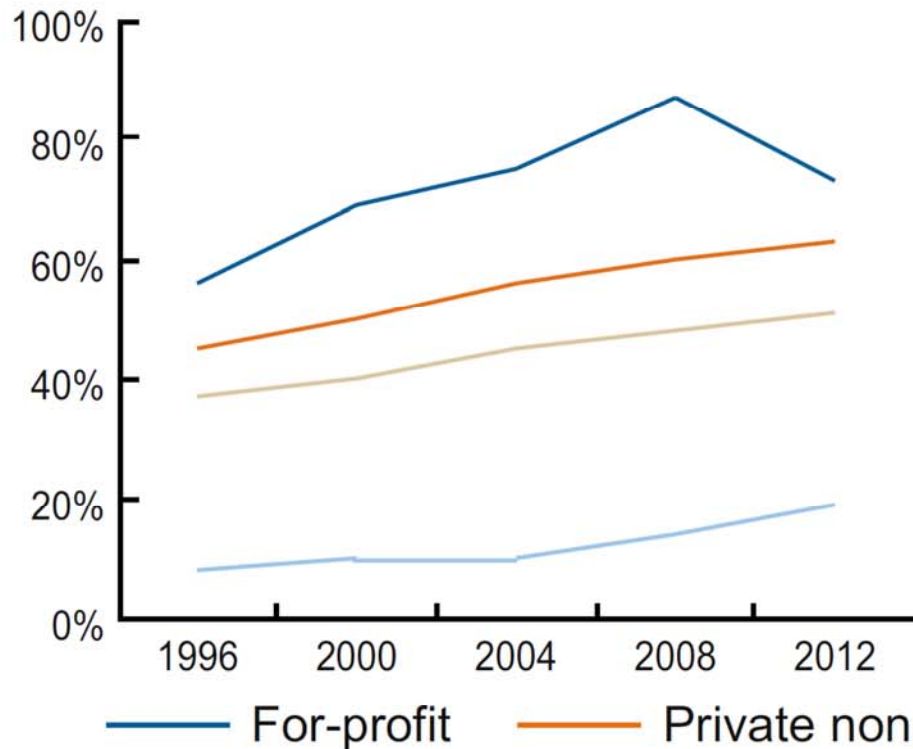
- FP students disproportionately borrow and rely on aid
 - FPs receive 26% of fed loan disbursements at peak (College Board 2013)
 - Loss of federal aid leads to large enrollment declines (Darolia 2013)
- Institutions capture financial aid
 - Federal aid-eligible institutions charge 78% more than ineligible institutions for similar programs (Cellini & Goldin 2014)
 - FPs capture around 20% of Pell Grant aid, but no different than non-selective non-profits (Turner 2013)
- FP price premium doesn't yield higher return to education
 - Survey and administrative data (Cellini & Chaudhary 2012; Cellini & Turner 2016; Lang & Weinstein 2013)
 - Experimental resume audit studies (Darolia et al 2015, Deming et al 2016)

Summary of descriptive observations

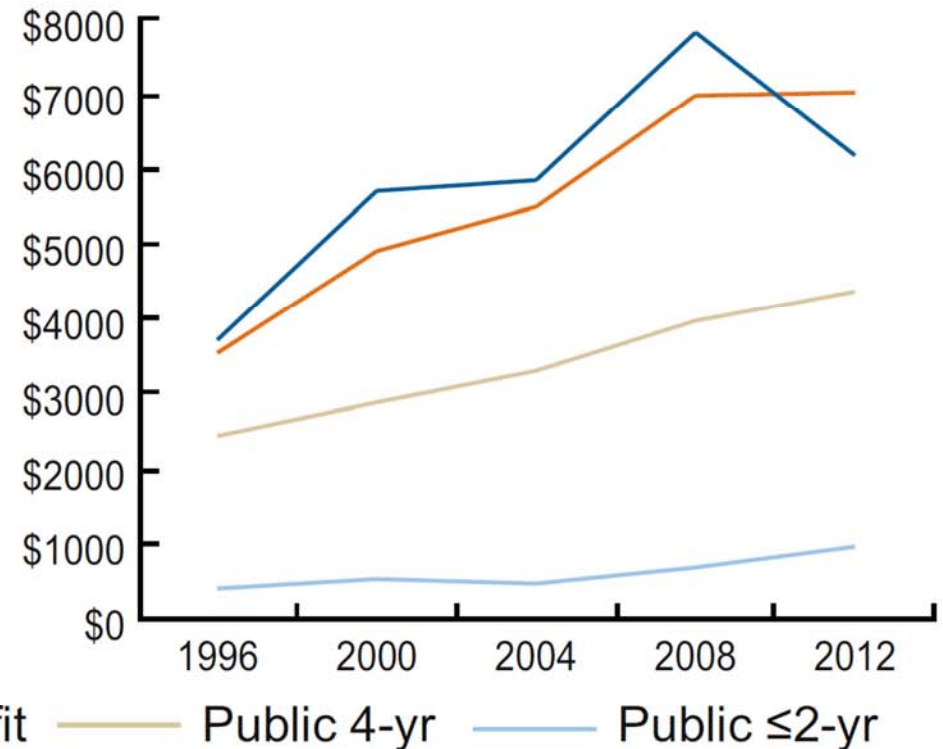
- Borrowing
 - Increasing borrowing rate and amount in every sector
 - Rate and avg amount (until 2008) highest in FP sector
 - Dip from 2008-2012 in FPs
- Academics, demographics, and resources
 - FPs & CCs serve most at-risk students with fewest resources and with students working the most
- College costs and aid
 - FP college costs are relatively high, with almost no institutional aid
 - Nearly all FP students apply for aid

Trends in undergraduate borrowing by sector

A. Percentage of Students Borrowing



B. Average Annual Amount Borrowed

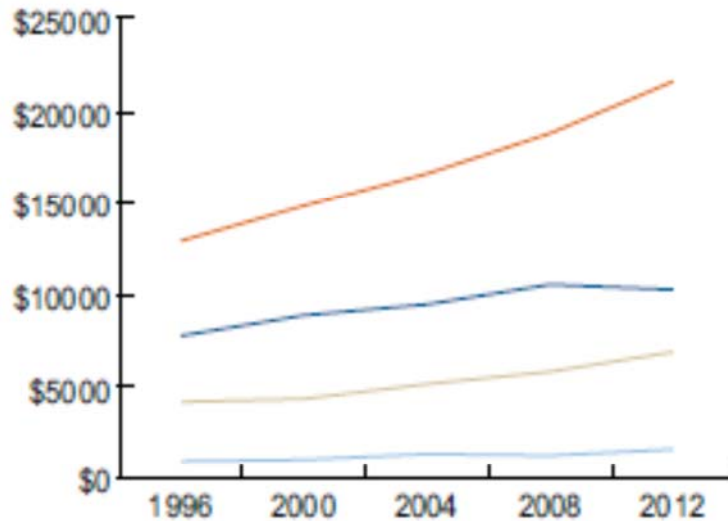


Notes: All dollars in constant 2012 dollars. Survey weights used.

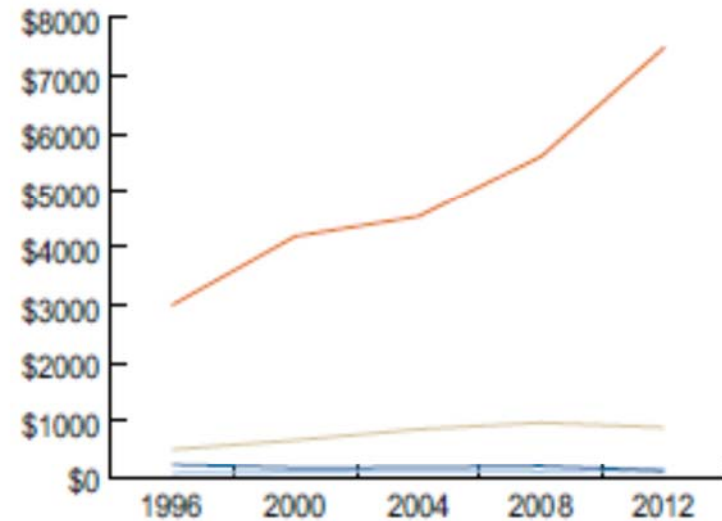
Source: Authors' tabulation of data from the National Postsecondary Student Aid Study

Trends in college costs and need

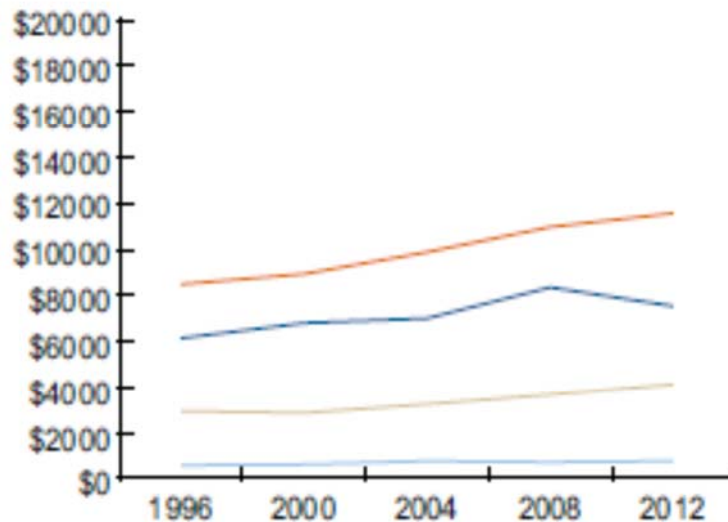
A. Average gross tuition and fees



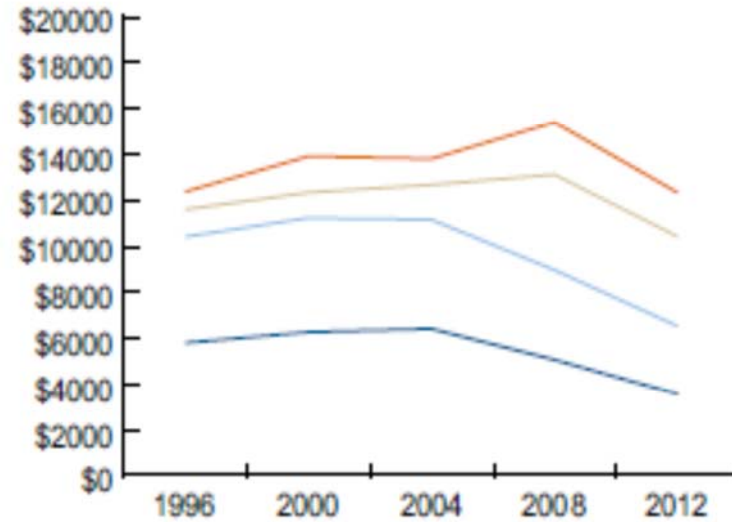
B. Average institutional aid



C. Average tuition, net of grants



D. Average expected family contribution



— For-profit — Private nonprofit — Public 4-yr — Public ≤2-yr

Notes: All dollars in constant 2012 dollars. Survey weights used.

Source: Authors' tabulation of data from the National Postsecondary Student Aid Study

Variance decomposition

- How much of the cross-sector variation is explained by:
 - Cost (COA, institutional grants)
 - Student financial resources (EFC)
 - Academic characteristics (credentials, attendance patterns)
 - Student demographics (gender, race/eth, first gen, fin independent)
 - Location, Year

Summary of decomposition results (FP vs. CC)

- Net COA is largest predictor of explained variation (+)
- Financial resources explains little (0)
- Academic patterns (-)

Summary of empirical work

- FP students borrow at the highest rates and levels.
- Borrowing in the FP sector has increased more than other sectors.
- Why?
 - College costs have increased steeply.
 - Unlike the non-profit sector, FP tuition hikes were not met with increases in institutional aid.
 - FP students are more disadvantaged and have fewer resources than students in other sectors.
 - But, student need and hours worked have not changed in the FP sector.
 - Even after controlling for resources and costs, FP debt still higher.

Discussion

- Why are disadvantaged and financially constrained students attending high-cost FP institutions?
- Policy recommendations and implications for students depend on which mechanisms are at work.
- Much more work to do to sort out these hypotheses.

Possible Reason 1: Financial need not well measured

- EFC calculations do a worse job reflecting ability to pay for FP students
 - E.g., less home equity or retirement accounts among FPs
 - Potential policies: Reconsider treatment of resources for “nontraditional” students in financial need formulas

Possible Reason 2: Rational decisions

- Indirect costs at FPs are lower
 - FPs have scheduling, classes, student services, or other unobservables that students value.
 - FP class schedules are most amenable to work.
- FP students have high discount rates
 - Heavily value the current over future
- Higher expected returns
 - Not borne out in recent research
- Public institutions are capacity constrained.
 - Attending FP better than not attending at all
 - Potential policy: additional funding for public higher ed.

Possible Reason 3: Information deficiencies

- Students are misled about aid and/or returns.
 - Potential policies: punitive regulations
- Students lack access to information from trusted sources
 - FP students most likely to talk to staff, least likely to talk to family.
 - Potential policies: indep loan counselors, “know before you owe”
- Students are confused/misinformed.
 - Unaware of their options, process is opaque.
 - FP students least likely to have parents with BA.
 - 50% of students at FPs in NLSY97 incorrectly identified whether the institution is public or private.
 - Students do not know how much they borrow
 - Potential policies: information disclosure, college scorecards, personalized counseling

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

APPENDIX

Data

- National Postsecondary Student Aid Study (NPSAS)
 - Coordinated by Dept. of Ed.
 - Nationally-representative, repeated cross-section, student-level data with detailed info on college financing.
 - Stratified random sample of students in federal aid-eligible schools, with oversample of for-profit students.
- 5 waves
 - 1995-96, 1999-00, 2003-04, 2007-08, 2011-12
- Sample size
 - 41,000 to 105,000 undergraduate students per wave.

College sector classification

- For-profit, any level
 - 32% Certificate, 40% AA, 27% BA, 1% no program
- Public, two-year or less
 - 8% Certificate, 79% AA, 2% BA, 11% no program
- Public, four-year
 - 0% Certificate, 4% AA, 91% BA, 2% no program
- Non-profit, any level
 - 2% Certificate, 4% AA, 92% BA, 1% no program

Oaxaca-Blinder variance decomposition

- Consider following linear estimation of loan amount, L ,

$$L = X\gamma + u$$

- Example: differences between the for-profit (F) and public (P) 2-year sector:

$$E[L_F - L_P] = \{E[X_F] - E[X_P]\}\gamma^* + \{E[X_P](\gamma_P - \gamma^*) + E[X_F](\gamma^* - \gamma_F)\}$$

- Decomposes the loan amount difference between sectors into difference in average observables (endowments); difference between group-specific coefficients (coefficients); and the interaction of differences in endowments and coefficients
 - For our purposes – Explained and Unexplained

O-B decomposition covariates

- **Cost:** Cubic functions of cost of attendance (COA) and grants, and all pairwise interactions of these functions
- **Student financial resources:** cubic function of expected family contribution (EFC)
- **Academics:** Type of credential sought (degree, certificate, coursework), year in school, attendance pattern (full-time, full-year; full-time, partial-year; part-time, full-year; part-time, partial-year)
- **Student demographics:** Gender, race, ethnicity, first generation immigrant, financially independent, single parent, number of dependents, married
- **Geographic:** State of residence, college state different than residence state, international student
- **Year:** 2008, 2012

Decomposition of borrowing variation (FPs & CCs)

	Amount (\$)	Rate (%)
Difference from FP	6,113	63
Explained Total	2,985	24
Cost	3,467	28
Resources	-36	0
Academic	-217	-3
Demographics, Location, Year	-228	-1
Unexplained	3,128	39