



FAMILY TIES: THE EFFECTS OF THE PRICE OF COLLEGE ON PARENT AND STUDENT FINANCES

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Motivation

- Gaps in college-going by family income (Bailey & Dynarski, 2011)
- Recent trends show increases in college tuition along with rise in use of educational debt (Looney & Yannelis, 2018)
- Lowering the cost of college or increasing access to credit can affect college enrollment, persistence, and graduation behavior, as well as later labor market outcomes (Denning, Marx, Turner 2019; Bettinger et al. 2019; Black et al. 2021, Chakrabarti et al. 2020; Eng & Matsudaira 2021)
 - Some have considered returns to grants and loans on credit outcomes but only for students (Scott-Clayton & Zafar 2019; Black et al. 2021)

Motivation

- Families often fund college jointly via both parents and children
- Little is known about the effects of college attendance on parents' financial outcomes or the role of access to funding on parent and child financial health
 - Federal Parent PLUS loans rose from 9% of total undergraduate loan originations in 1997 to 15% in 2017
 - Parents may also rely on alternative forms of credit such as HELOCs
- Are there unintended consequences of increased college-going?
 - Parental investment related to intergenerational transfer rather than students' purpose of human capital investment
 - Does it increase parental debt? Financial aid policies may not cover the cost of full tuition, could induce shifts into colleges with higher tuition rates or additional burdens (e.g., travel, housing)

What Are We Doing?

- Study how both students' and parents' financial health is affected by changing access to grant aid for the child
 - Financial health is difficult to measure on surveys
 - Identification strategy: use sharp changes in Cal Grant state aid eligibility at GPA and income thresholds
- Linking data on universe of FAFSA applicants in California to credit data via the University of California Consumer Credit Panel (UC-CCP)
 - FAFSA identifies both the student and their parents
- Focusing only on the student obscures the overall impact of aid
 - Receiving state aid decreases educational loan and HELOC balances for parents with little impact on students' educational debt, with some key differences by family assets

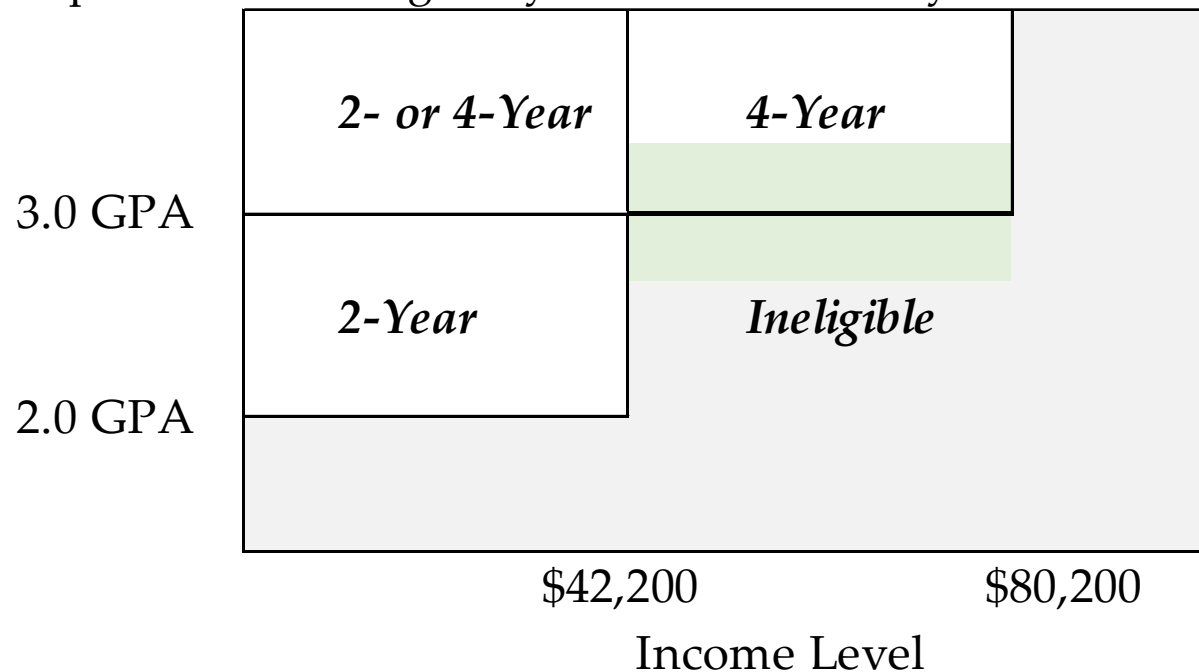
Data

- Universe of California's FAFSA submissions obtained from the California Student Aid Commission (CSAC) for academic years 2006-07 to 2015-16
 - 22 million FAFSA submissions from 7.5 million unique students
 - Contains information on parents and students, including age, gender, education level, marital status, zip code of residence; expected family contribution, family income
 - Identifies both student AND parent SSN
- Cal Grant applications
 - Recent high school graduates eligible for the primary "Entitlement" award
 - Can observe college receiving aid; (for many) in-state public college enrollment

Research Design

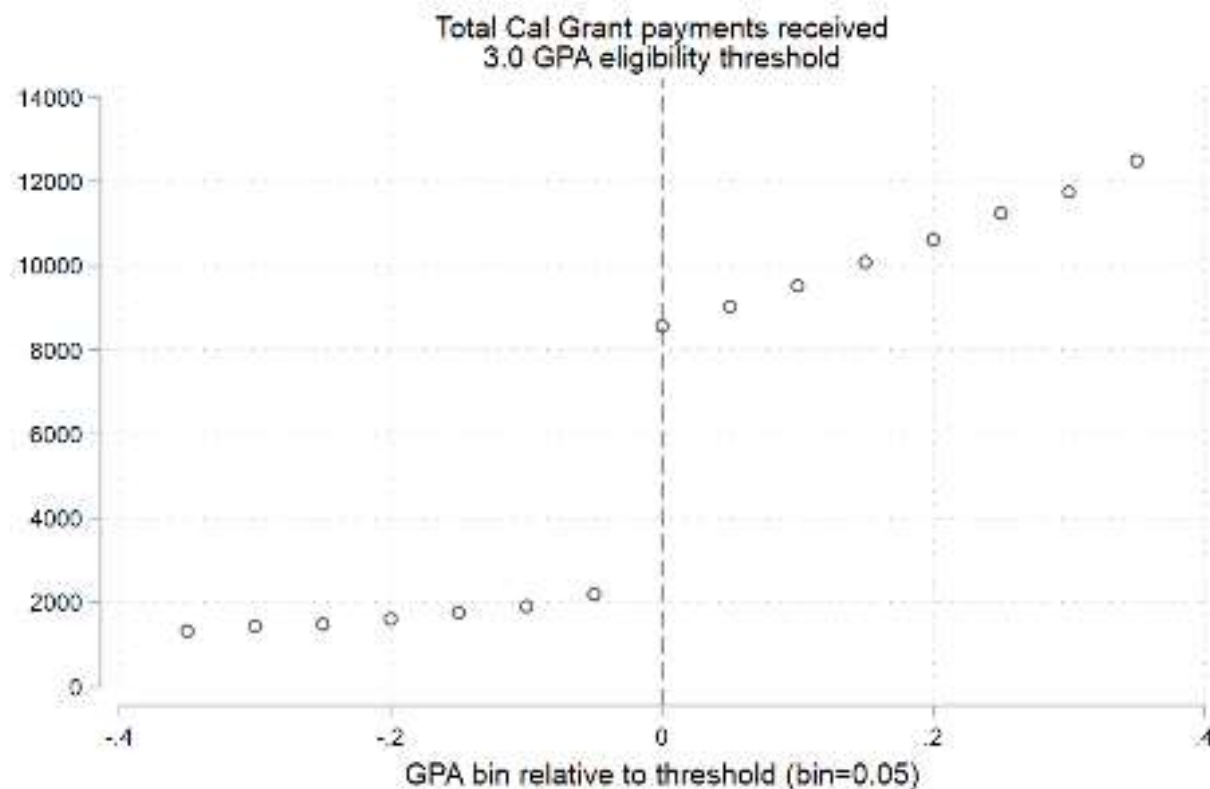
- Cal Grant has sharp changes in aid eligibility at GPA and income thresholds
- Middle-income students who cross the 3.0 GPA threshold can receive full tuition at CSU or UC, or a \$9,000 subsidy at private colleges.

Sample Cal Grant eligibility cutoffs for a family of 4 in 2010



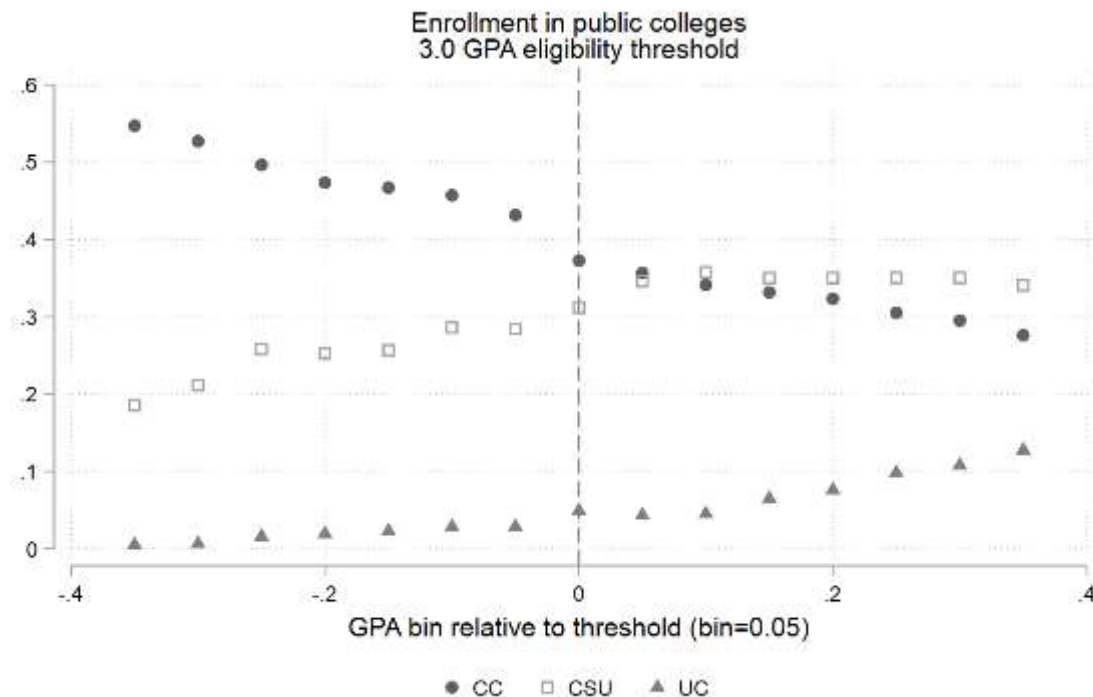
Research Design

- Crossing the aid eligibility threshold increases receiving aid in first year by 36pp (~2/3 at California State University) and total aid over time by \$5800
 - Removed spike at 3.0 GPA and twins; will show results for fixed 0.3 GPA bandwidth



Research Design

- Aid eligibility only slightly increases CSU enrollment at the expense of community colleges
 - Prior work found larger impacts on persistence than enrollment (Bettinger, et. al., 2019)
- We are then mostly estimating a pure subsidy for students



Descriptives

Table 1. Descriptive characteristics from FAFSA

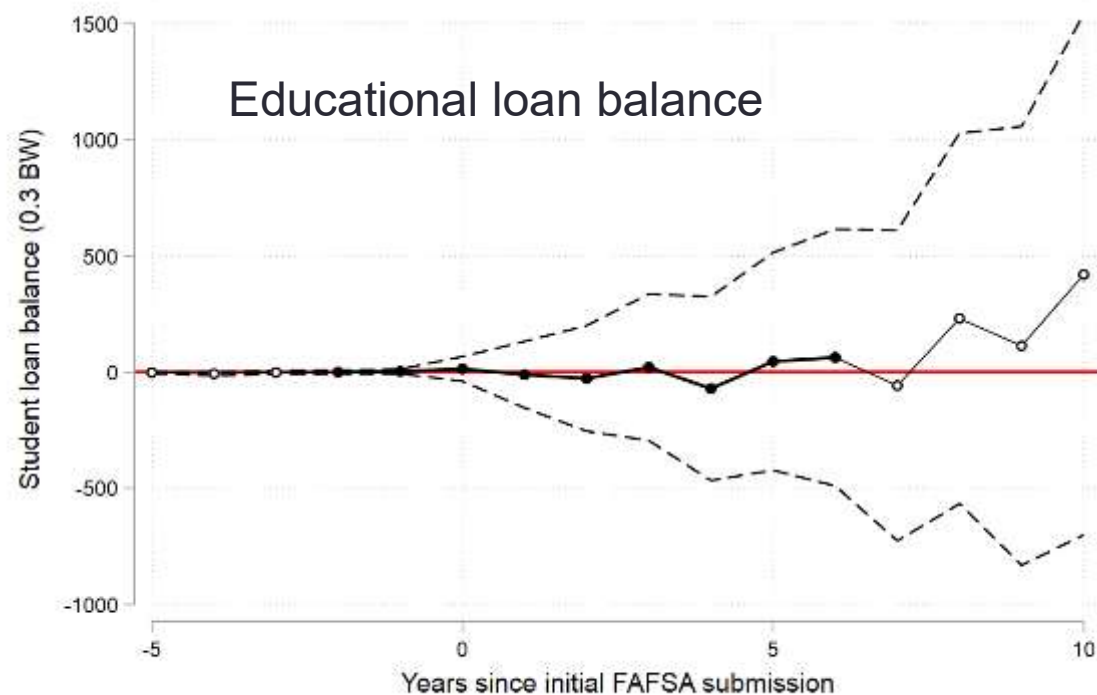
Student characteristics	Average
Income	60151
Age	18.9
Family has another child in college	7.0%
Female	57.7%
Parent characteristics	
Age of first parent	47.1
Age of second parent	48.5
Parents currently married	69.7%

Data

- Linked to the University of California Consumer Credit Panel (UC-CCP); quarterly information from 2004-present for all Californians
 - Credit outcomes, primarily disaggregated debt amounts, balances, default, and credit score; detailed information on geographic residence
 - Track annual outcomes from fourth quarter snapshots (e.g., December)
- Dependent students with married parents or those living together report two SSNs; whereas never married, divorced, separated, or widowed report one
- Tradelines identify existence of debt, total amount, and delinquencies
 - Report the sum of total debt for the parents; For jointly held debt (i.e., both individuals within a household are listed on the mortgage or the credit card), we allocate half of the balance to each person in the couple to avoid double counting.

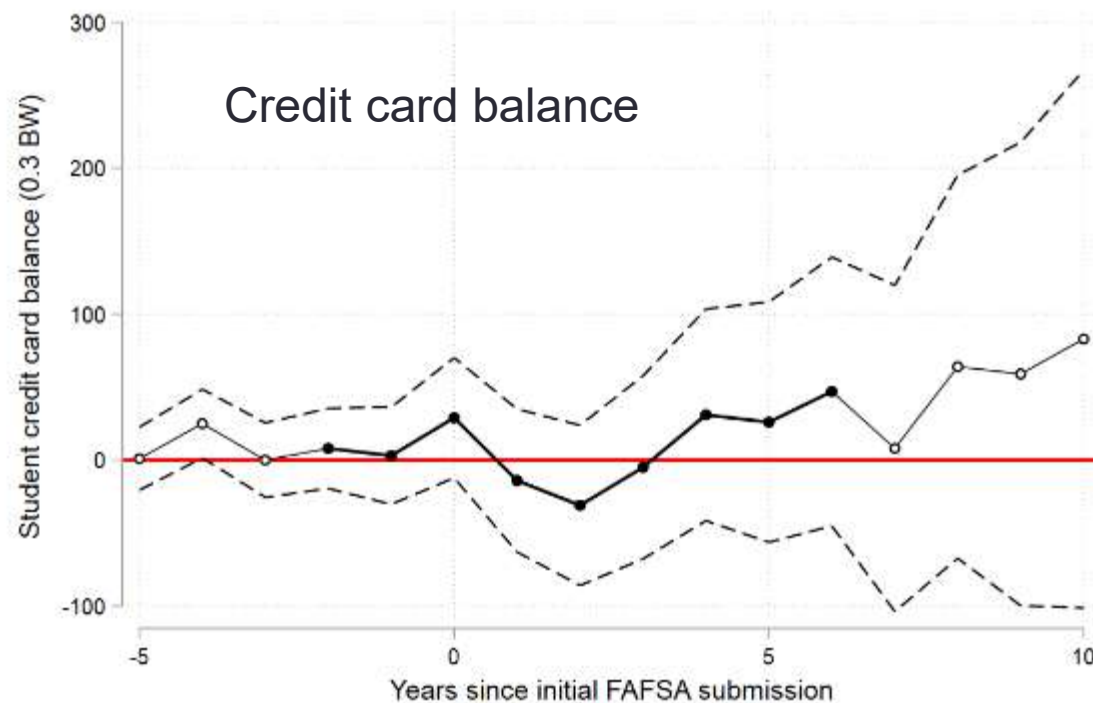
Results: Students

- Estimate treatment impacts from five years prior to eleven years after initial FAFSA submission; Solid dots identify the balanced portion of the panel
- Little to no impacts on credit measures (educational loans, credit cards, auto loans, mortgages)



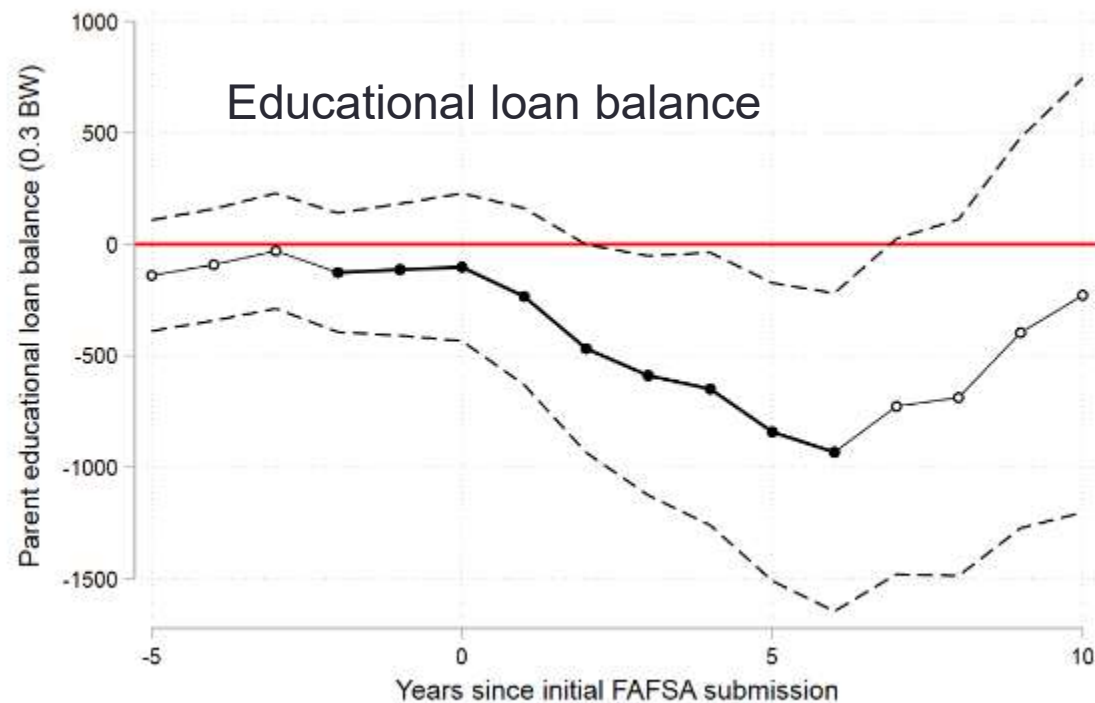
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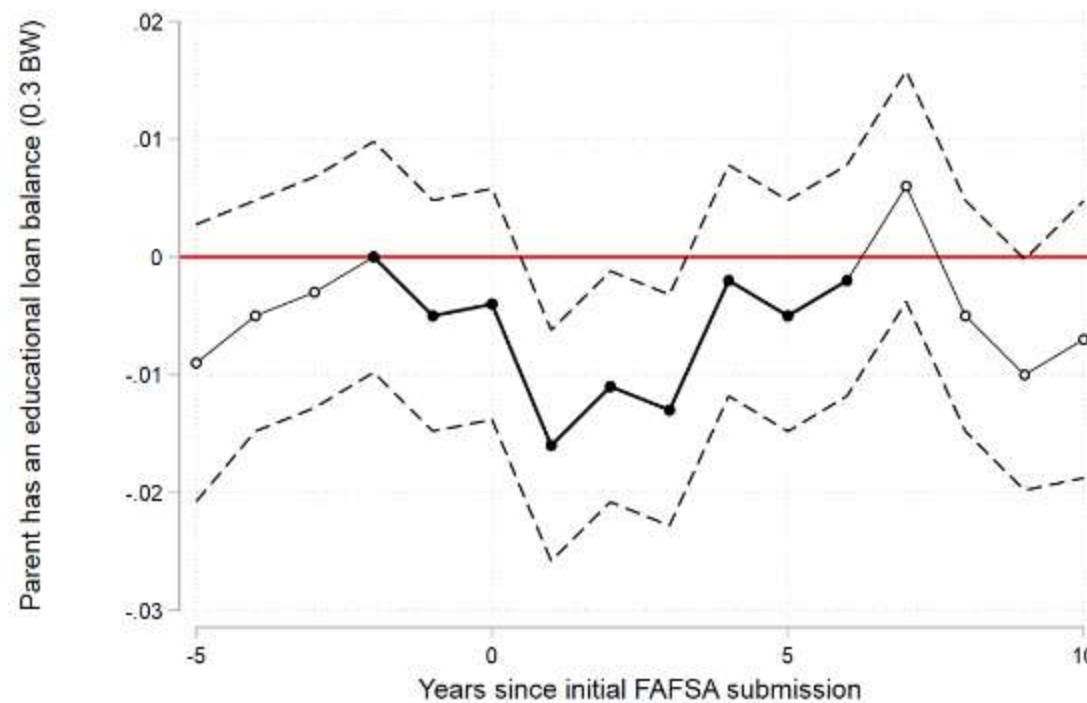
Results: Parents

- Offer of grant aid (~\$5,800 in reduced form) lowers parents' educational loan balances ~\$600-\$900
 - Approximately 1.0 to 1.5 pp decline in having an educational loan balance
 - Some declines on HELOC balances mostly 5 to 7 years from initial application



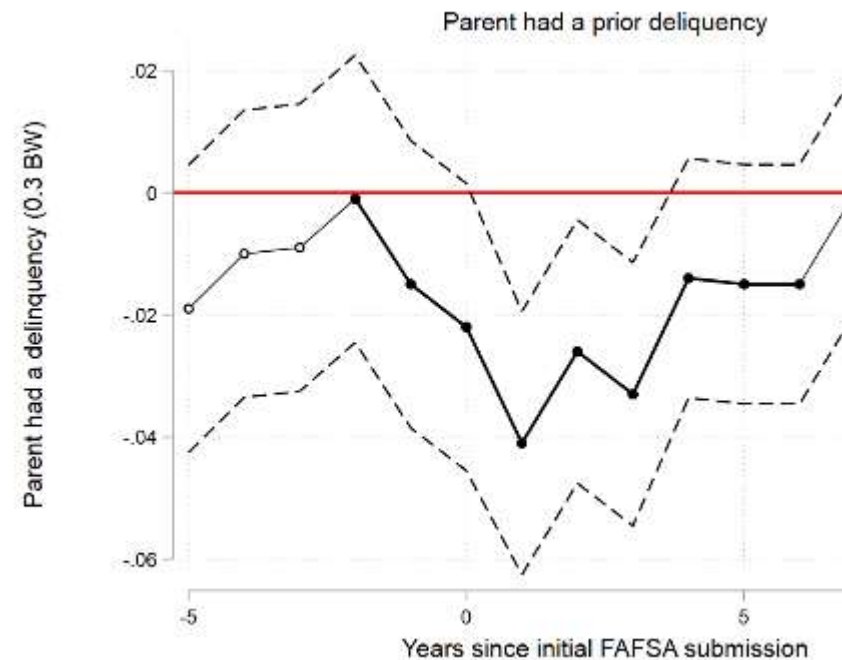
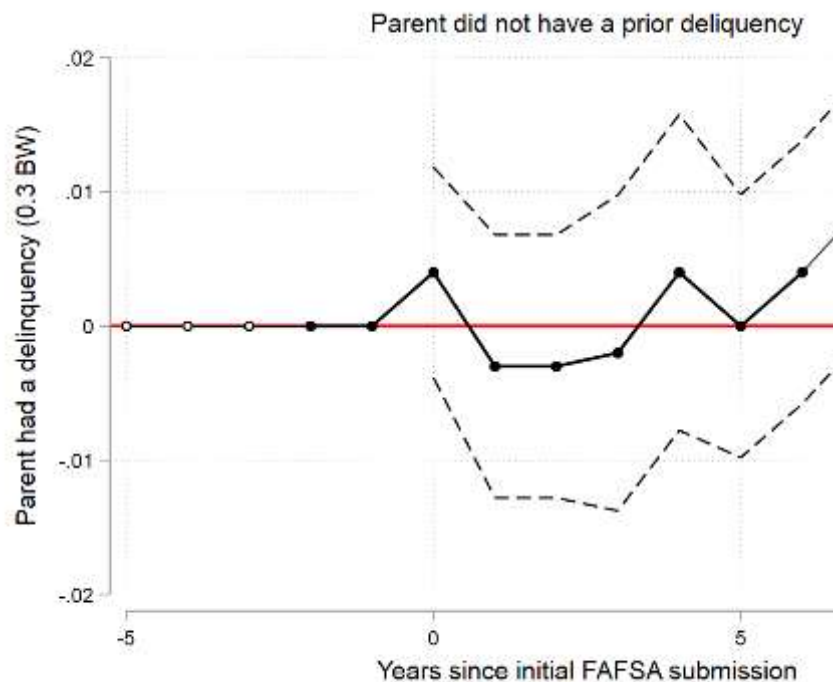
Results: Parents

- Delinquencies decline roughly 1 to 1.5 percentage points in the years when a child is in college
 - This aggregates multiple trade lines, including credit cards, auto, mortgage, HELOCs



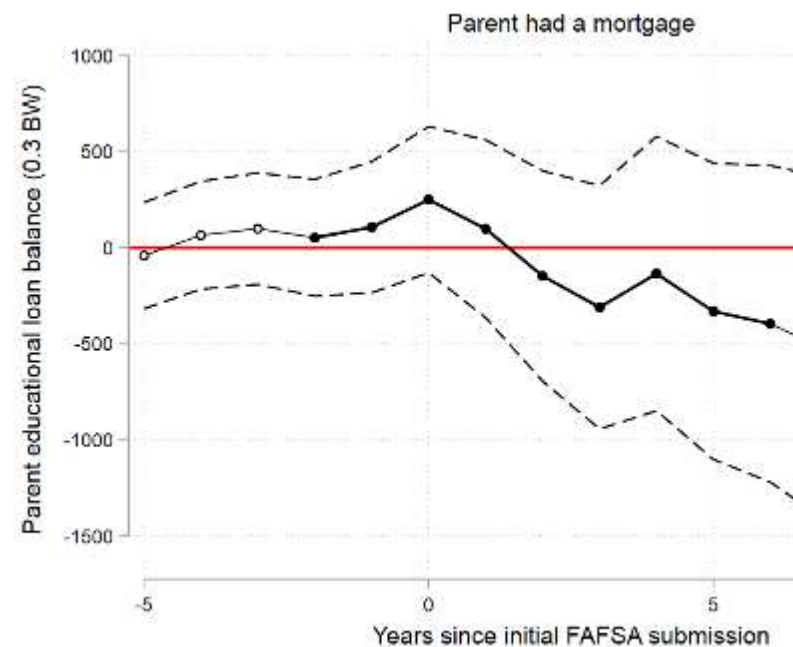
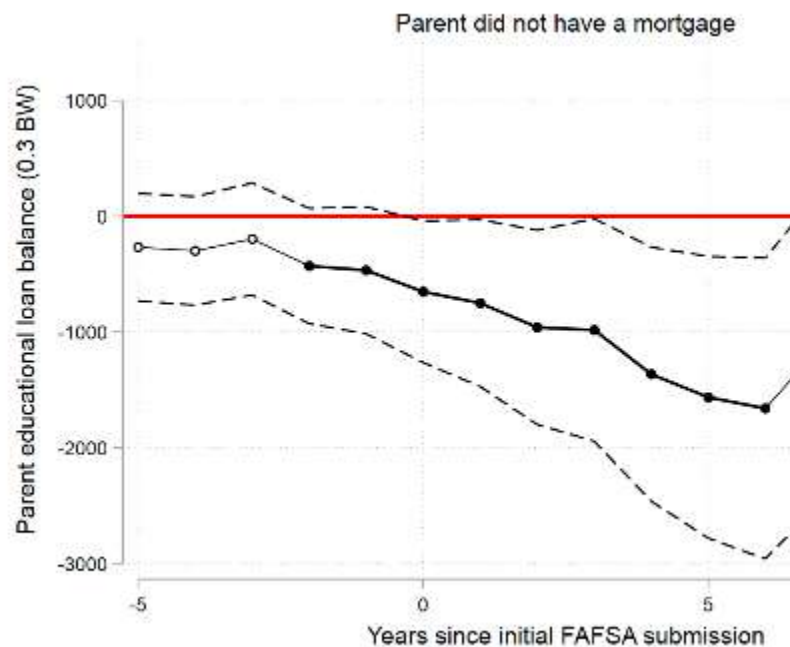
Results: Parents

- Currently exploring heterogeneous effects
- For example, declines in delinquences appear driven by families with prior delinquences



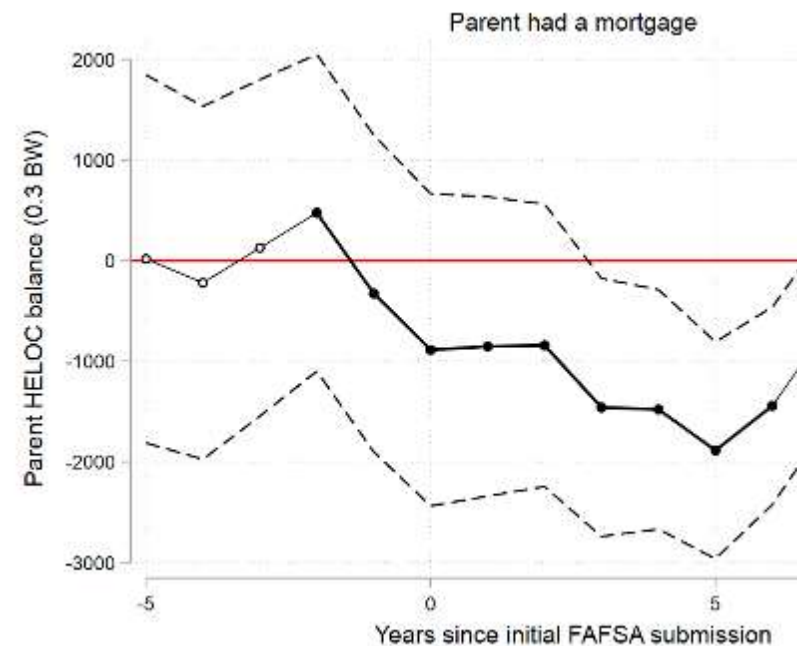
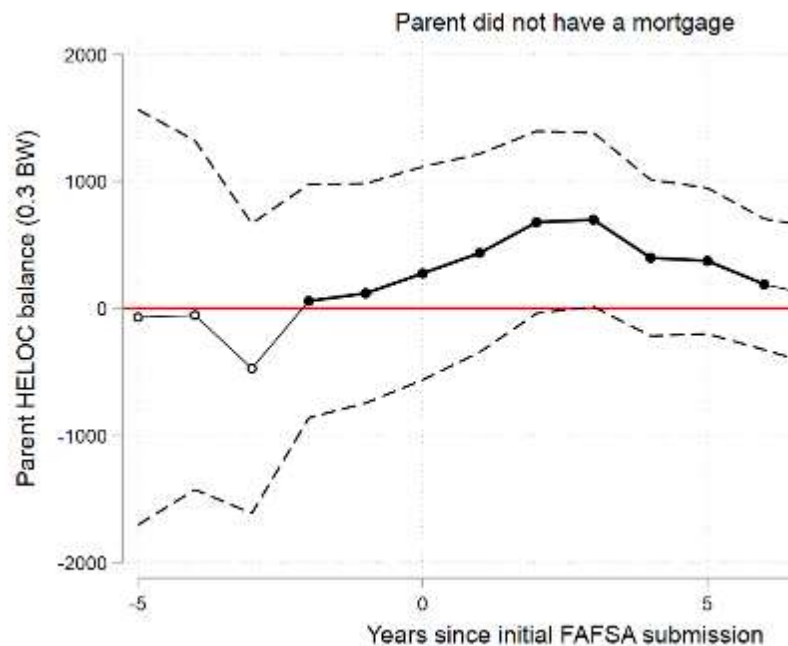
Results: Parents

- Divergent pattern by assets; families with mortgages lower their HELOC balances, whereas families without mortgages lower their educational loans



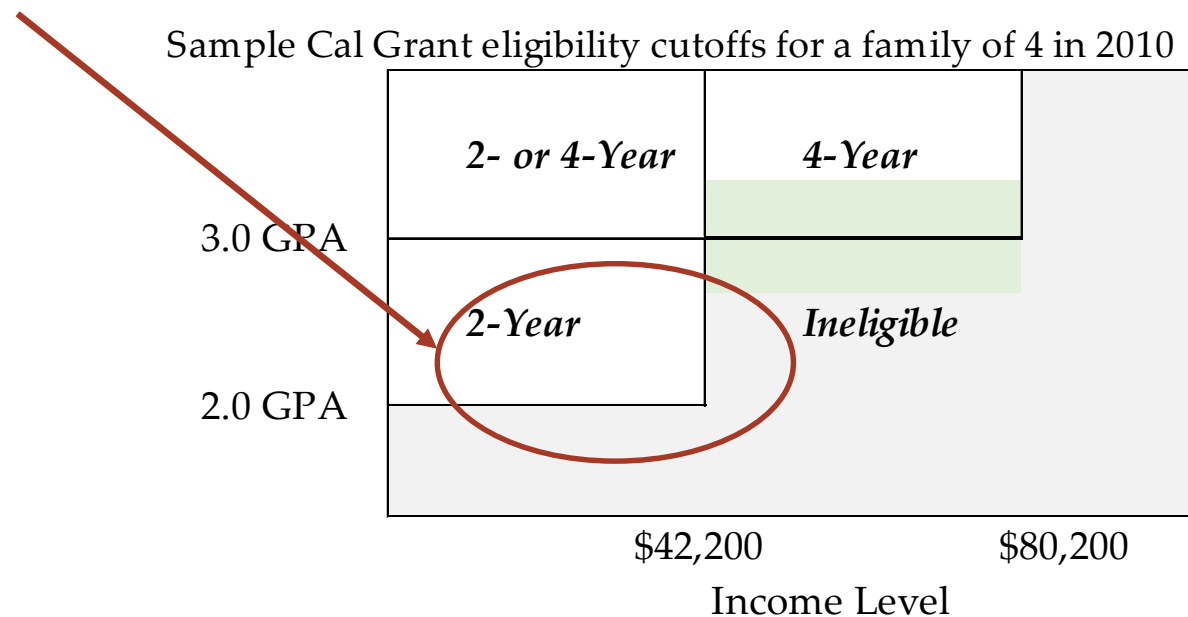
Results: Parents

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Additional results and robustness

- Results do not change by bandwidth (except very short bandwidths) or how we disaggregate parents
- Other Cal Grant cutoffs – for lower income and lower GPA students focused on community colleges, which offer less aid – produces mostly null changes to parent credit outcomes



Next Steps

- This paper: robustness checks; heterogeneous results
- Refine credit data
- Descriptive “event study” design of how parents finance their child’s college education
- Link to National Student Clearinghouse data

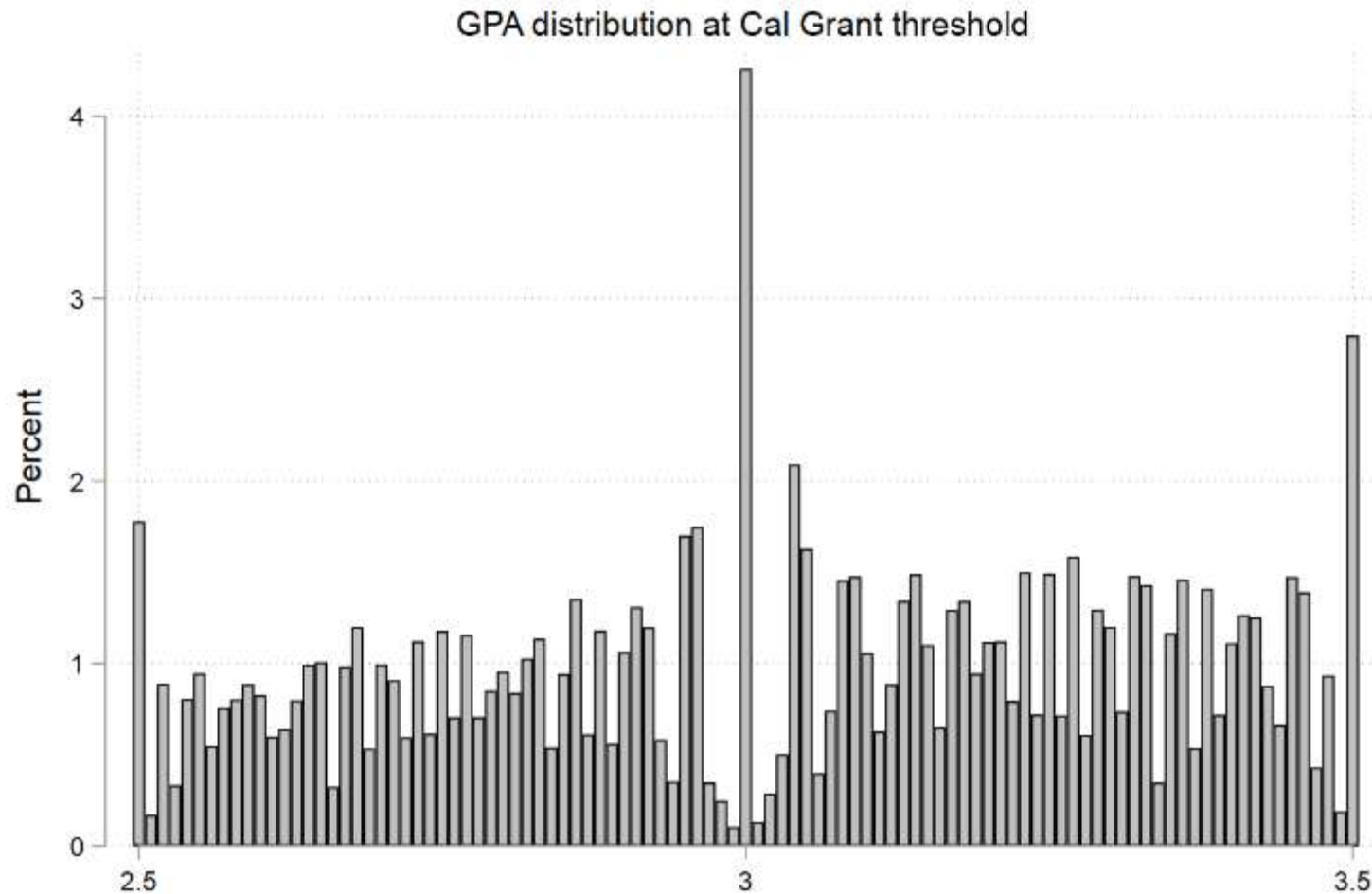
Conclusion

- About 10% (or more) of state aid ends up as reduced educational loan burden on parents
- Only observing student – without observing the family unit – would have led to conclusion that grant aid had little to no impact on debt and delinquency
- Not claiming that this will always occur – but that the ways families finance college and react to aid is complex
- California context: relatively low tuition rates and generous subsidy programs; expansive public college sector

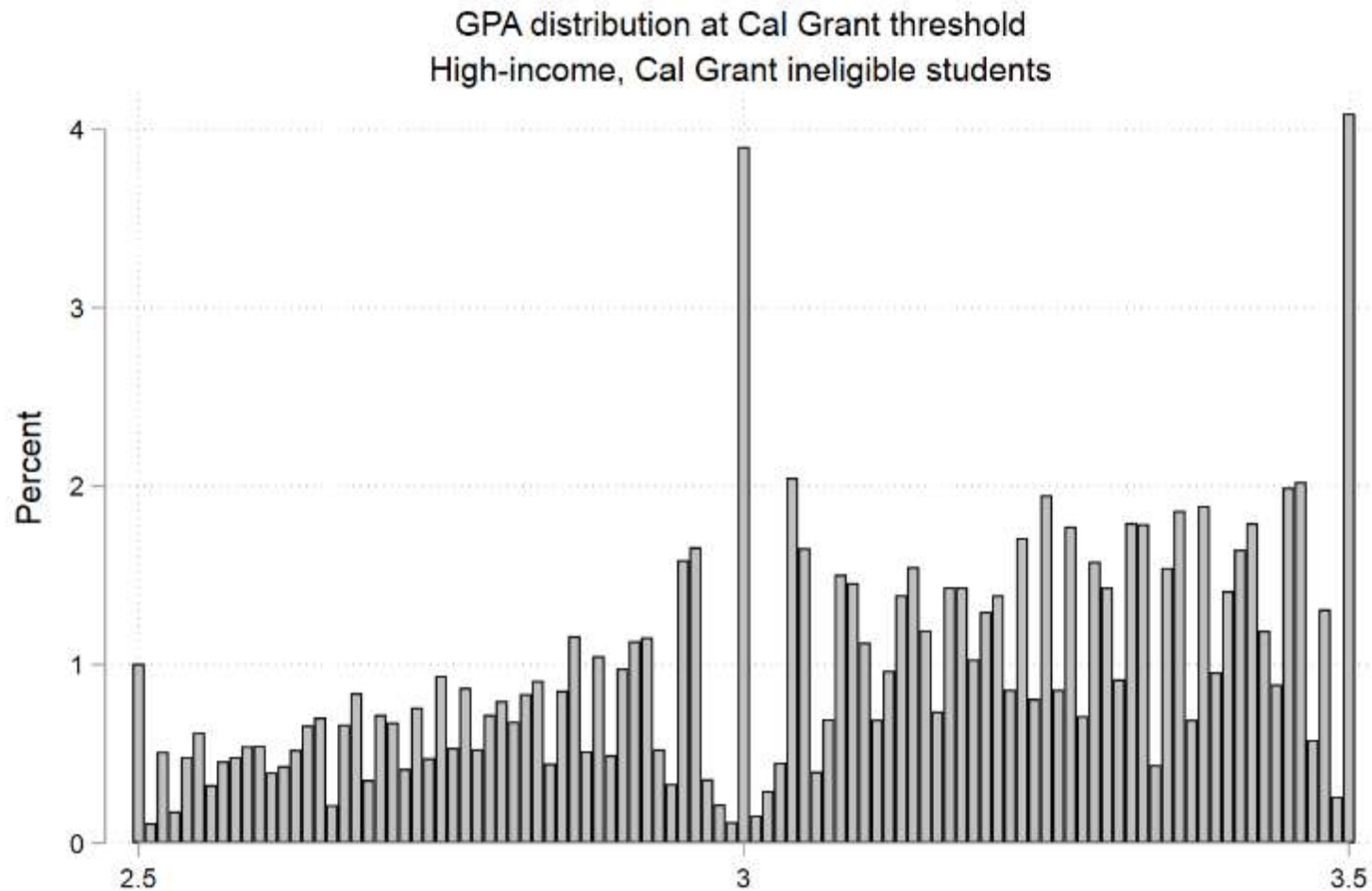


Extra Slides

Histogram; Eligible Applicants



Histogram; Ineligible Applicants



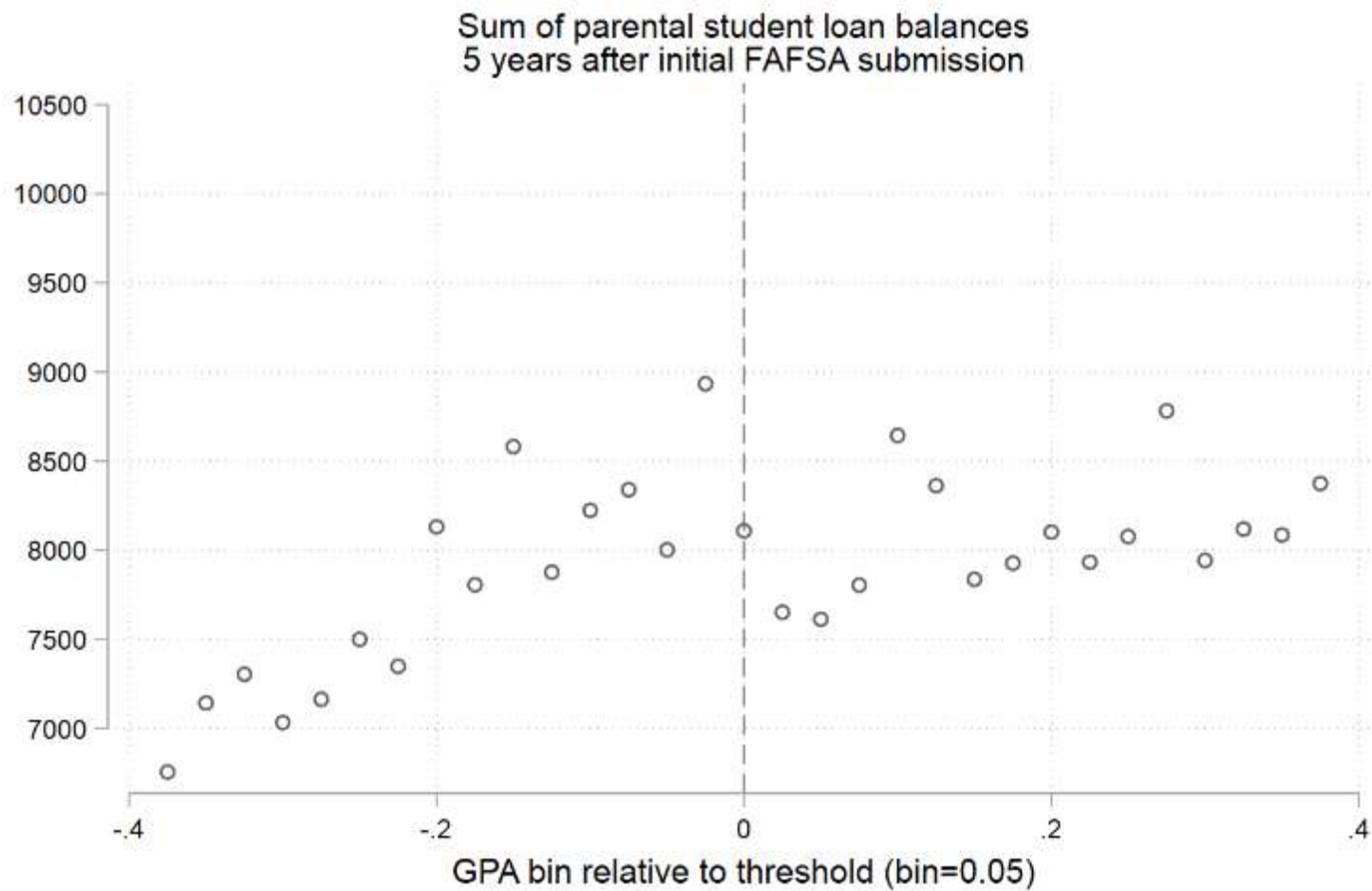
Covariate balance

Table 2. Test of covariate balance at regression discontinuity threshold

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Income	Family size	Family has another member in college	Parent college educated	Student is a freshman	Student age	Has a parent	Age: Parent 1	Age: Parent 2	Female	Degree objective: Bachelors	Citizen	Parent is married
Fixed Bandwidth	31.735	0.000	-0.002	0.001	0.002	-0.016	-0.001	0.054	0.051	0.001	0.006	-0.004+	-0.000
	(171.790)	(0.017)	(0.003)	(0.007)	(0.003)	(0.011)	(0.001)	(0.086)	(0.102)	(0.007)	(0.006)	(0.002)	(0.006)
N	126510	126510	126510	126510	126510	126510	126510	117852	89597	123914	125681	126510	126510
Baseline mean	60000	4.11	0.069	0.447	0.954	18.961	0.991	46.91	48.30	0.570	0.665	0.970	0.696

Notes. ** p<0.01, * p<0.05, + p<0.10. Sample includes all first-time FAFSA submitting students from 2006 through 2015 who are California residents, dependents, defined as "middle-income" (Appendix Table 1), submitted their high school GPA by March 2nd of the application year as part of the Cal Grant application process, and had a GPA between 2.7 and 3.3.

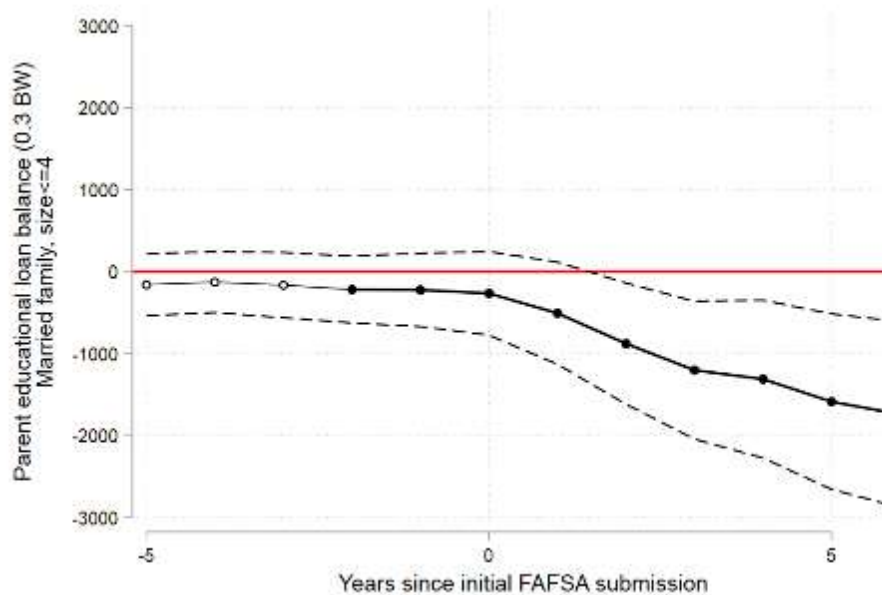
Results: Parents



Results: Parents

- Currently exploring heterogeneous effects
- For example, declines in student loan balances appear driven by smaller families
 - HELOC declines appear driven by larger families

Family size ≤ 4



Family size ≥ 5

