Taking It to the Limit: Effects of Increased Student Loan Availability on Attainment, Earnings, and Financial Well-being*

ONLINE APPENDICES: NOT FOR PUBLICATION

Sandra E. Black
Columbia University, NBER, IZA, NHH

Jeffrey T. Denning
Brigham Young University, NBER, IZA

Lisa J. Dettling
Federal Reserve Board of Governors

Sarena Goodman
Federal Reserve Board of Governors

Lesley J. Turner
Vanderbilt University, NBER

August 2020

* Email: sblack@columbia.edu, jeffdenning@byu.edu, lisa.j.dettling@frb.gov, sarena.f.goodman@frb.gov, and lesley.j.turner@vanderbilt.edu. Any views or interpretations expressed in this paper are those of the authors and do not necessarily reflect the views of the Federal Reserve Board of Governors. The conclusions of this research do not necessarily reflect the opinion or official position of the Texas Education Research Center, the Texas Education Agency, the Texas Higher Education Coordinating Board, the Texas Workforce Commission, or the State of Texas.

Appendix A: Additional Details on Federal Loan Programs

Our analyses focus on borrowing limits for Stafford Loan Program, which is the primary source of loan aid provided to undergraduates by the federal government. Prior to 2010, schools could participate in one or both of two parallel federal lending programs: the William D. Ford Federal Direct Loan Program and the Federal Family Education Loan (FFEL) Program. FFEL loans were originated by private lenders and guaranteed by the federal government, but from a student's perspective, the two programs were interchangeable. The 20 Health Care and Education Reconciliation Act abolished the FFEL program.

Students are limited in the total amount of Stafford Loans they can borrow during their undergraduate education. Prior to 2008, dependent students could borrow up to $23,000 in total and independent students could borrow up to $46,000. After 2008, aggregate limits were raised to $31,000 for dependent students and $57,500 for independent students.

Students in our sample were exposed to three different Stafford Loan interest rate regimes. Loans originated before July 1, 2006 had variable in-school interest rates based on the 91-day Treasury note plus 1.7 percent and variable in-repayment interest rates based on the 91-day Treasury note plus 2.3 percent, both with a maximum of 8.25 percent. Loans originated after June 30, 2006 had interest rates that were fixed at origination. Between July 1, 2006 and June 30, 2012, interest rates ranged from 3.4 to 6.8 percent and were set by legislation. Starting July 1, 2012, interest rates were pegged to the rate for the 10-year Treasury note plus 2.05 percent, with a cap of 8.25 percent. Table B.1 summarizes the interest rates for loans originated between July 1, 2000 and June 30, 2018, while Table B.2 shows the annual interest rates for loans in repayment that were originated before July 1, 2007.

Stafford Loans provided to undergraduate students are classified as subsidized or unsubsidized. Subsidized loans do not accrue interest while a student has at least half-time enrollment. Subsidized loans also had lower interest rates between 2009 and 2013 (Table A.1). A student's subsidized loan eligibility is limited by the smaller of the subsidized loan maximum (Table A.3) and her unmet need. Unmet need equals to the cost of attendance minus EFC and

other financial assistance (grants and work-study). Unsubsidized loans eligibility is limited by the smaller of the overall loan maximum and the total cost of attendance minus other financial assistance and subsidized loans (i.e., unsubsidized loans can be used to cover a student's EFC). This latter constraint is rarely binding, and as a result, a reduction in subsidized loan eligibility is almost always met with an equal sized increase in unsubsidized loan eligibility (with total loan eligibility unchanged).

The value of the in-school subsidy will depend on the prevailing interest rate and time spent in school. Table A.4 provides examples of the difference in loan balance when entering repayment for a $1000 subsidized relative to a $1000 unsubsidized loan borrowed in a student's year of entry. Depending on the length of time spent in school, the in-school subsidy is worth as little as $34 to as much as $389.

Borrowers are charged an origination fee that continuous in the amount borrowed and automatically subtracted from the amount of loan aid that is applied to tuition and fees or disbursed. Table A.5 displays origination fees for loans received between 2001 and 2018.

Undergraduate students also potentially had access to Perkins Loans and Parent PLUS loans during the years we examine. The authority for schools to make new Perkins loans ended September 30, 2017, and final disbursements were allowed through June 30, 2018.[1] Perkins Loans were "campus-based" loans that schools could provide to students with exceptional financial need. Schools received a formula-based pot of money through the Perkins Loan Program that could be lent to students. Not all students with unmet need received Perkins Loans offers due to limited program funding. In the last year of the program, Perkins Loans made up less than 1 percent of all federal loan aid provided to students.[2]

Parent PLUS loans are available to credit-worthy parents of students. If a parent is denied PLUS loans due to "an adverse credit history," their child student is eligible to borrow at the independent student limit. Parents deemed credit-worthy can borrow up to their student's cost of attendance less grants and other loans. Statutory interest rates for Parent PLUS loans

[1] See https://studentaid.gov/understand-aid/types/loans/perkins.
[2] See Table 1, https://research.collegeboard.org/pdf/trends-student-aid-2019-full-report.pdf.

always exceed interest rates for Stafford Loans.[3] In the years we examine, Parent PLUS loans made up 8 to 12 percent of annual borrowing.[4]

Table A.1 Historic Stafford Loan interest rates

Year originated	Interest rate		Formula
	Sub	Unsub	
2000-2001	Variable		In-School, grace, and deferment periods: 91-day T-bill + 1.7% (capped at 8.25%); repayment periods: 91-day T-bill + 2.3% (capped at 8.25%).
2001-2002	Variable		
2002-2003	Variable		
2003-2004	Variable		
2004-2005	Variable		
2005-2006	Variable		
2006-2007	6.8%	6.8%	Set by 2002 amendments to the Higher Education Act (P.L. 107-139) and the College Cost Reduction and Access Act of 2007 (P.L. 110-84).
2007-2008	6.8%	6.8%	
2008-2009	6.0%	6.8%	
2009-2010	5.6%	6.8%	
2010-2011	4.5%	6.8%	
2011-2012	3.4%	6.8%	
2012-2013	3.4%	6.8%	
2013-2014	3.86%	3.86%	10-Year Treasury Note + 2.05% (capped at 8.25%).
2014-2015	4.66%	4.66%	
2015-2016	4.29%	4.29%	
2016-2017	3.76%	3.76%	
2017-2018	4.45%	4.45%	

Notes: Year originated covers July 1 through June 30 (e.g., 2000-2001 covers July 1, 2000 through June 30, 2001).

[3] See Smole, D. P. 2015. *Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers.* CRS Report R40122, Washington DC.

[4] See Figure 6, https://research.collegeboard.org/pdf/trends-student-aid-2019-full-report.pdf.

Table A.2 Annual Stafford Loan interest rates for loans originated between 2001 and 2007

Date	In-school interest rate	Repayment interest rate
2000-2001	8.19	7.59
2001-2002	5.99	5.39
2002-2003	4.06	3.46
2003-2004	3.42	2.82
2004-2005	3.37	2.77
2005-2006	5.30	4.70
2006-2007	7.14	6.54
2007-2008	7.22	6.62
2008-2009	4.21	3.61
2009-2010	2.48	1.88
2010-2011	2.47	1.87
2011-2012	2.36	1.76
2012-2013	2.39	1.79
2013-2014	2.35	1.75
2014-2015	2.33	1.73

Notes: Subsidized loans do not accrue interest while a borrower is in school or during the 6-month grace period following repayment entry. Interest rates are in effect July 1 to June 30. The in-school interest rate also applies to loans in deferment or in grace periods. 2000-2015 interest rates from Smole, D. P. 2015. *Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers.* CRS Report R40122, Washington DC.

Table A.3: Value of in-school subsidy for $1000 loan borrowed at entry

	Time spent in school				
Cohort	1 year	2 years	3 years	4 years	5 years
2001	$82	$147	$193	$234	$276
2002	$60	$103	$141	$179	$242
2003	$41	$76	$112	$171	$255
2004	$34	$69	$126	$206	$293
2005	$34	$88	$166	$250	$303
2006	$50	$125	$207	$257	$289
2007	$68	$141	$218	$301	$389
2008	$68	$141	$218	$301	$389

Notes: This table shows the amount of interest that would accumulate while a borrower is in school for a $1000 unsubsidized loan.

Table A.4: Subsidized loan limits by class standing and entry cohort

Academic year	Freshmen	Sophomores	Upper level
2006-07 and earlier	$2,625	$3,500	$5,500
2007-08	$3,500	$4,500	$5,500
2008-09 and later	$3,500	$4,500	$5,500

Notes: Community college students are limited to sophomore status regardless of credit accumulation.

Table A.5 Stafford Loan origination fees by origination year

Date originated	Fee
July 1, 1994 – June 30, 2006	4%
July 1, 2006 – June 30, 2007	3%
July 1, 2007 – June 30, 2008	2.5%
July 1, 2008 – June 30, 2009	2%
July 1, 2009 – June 30, 2010	1.5%
July 1, 2010 – June 30, 2013	1%
July 1, 2013 – November 30, 2013	1.051%
December 1, 2013 – September 30, 2014	1.072%
October 1, 2014 – September 30, 2015	1.073%
October 1, 2015 – September 30, 2016	1.068%
October 1, 2016 – September 30, 2017	1.069%
October 1, 2017 – September 30, 2018	1.066%

Notes: From Smole, D. P. 2019. *Federal Student Loans Made Through the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers.* CRS Report R45931, Washington DC.

Appendix B: Data

B.1 Texas education data

We use data from the Texas Higher Education Coordinating Board, which was accessed through the University of Houston Education Research Center (ERC).[5] Although these data are not publicly available, interested researchers can apply for access through the ERCs at the University of Houston, University of Texas at Austin, and University of Texas at Dallas.[6]

Records of all students who enrolled in a public higher education institution in Texas are linked to quarterly earnings in sectors covered by the Texas unemployment insurance system. UI records cover employers who pay at least $1500 in gross wages to employees or have at least one employee during twenty weeks in a calendar year. Students employed by their college or university are not included in this data set. However, we do observe earnings through federal, state, or institutional work-study programs. Annual earnings are the sum of quarterly earnings

[5] See https://www.uh.edu/education/research/institutes-centers/erc/. Information on the data maintained at the ERC is available at: https://www.uh.edu/education/research/institutes-centers/erc/data-warehouse/.
[6] Information on submitting a proposal to the University of Houston ERC is available at: https://www.uh.edu/education/research/institutes-centers/erc/proposal-preparation-and-submission/.

over the academic year. For example, 2004 annual earnings are the sum of earnings for 2003-Q3, 2003-Q4, 2004-Q1, and 2004-Q2.

We observe attainment and earnings outcomes are available through the 2016-17 academic year and financial aid outcomes through the 2018-19 academic year. Thus, for all students in our main sample, we observe at least 9 years of outcomes (i.e., outcomes up to 8 years after entry).

B.2 CCP/Equifax data

Our student loan borrowing data are derived from the student loan tradeline data, a subset of the CCP/Equifax dataset. This is a *loan-level* dataset available for every member of CCP/Equifax sample who has a student loan. It includes detailed information on up to 20 individual student loans in each quarter. For each loan, the dataset includes the exact date of loan origination, the amount borrowed at origination, the current balance, the current payment, and the current delinquency status.

We collapse the tradeline data on each individual student loan into a borrower by academic year dataset. To do this, we employ the universe of tradeline data for 2004 through 2019, measured in June of each year. We assign academic years using the loan opening date, where we define an academic year as July through June. To allow for lags between loan origination and appearance on the credit record, our analyses will use up to six years of retrospective panel data to calculate each academic year of borrowing.[7] For example, to calculate borrowing for the 2003-04 academic year, we will first examine a borrowers' credit record in June of 2004. If we observe any loans with opening dates between July 1, 2003 and June 30, 2004, we collapse those loans and assign the total amount as AY 2003-04 borrowing. If we do not observe any student loans with opening dates between July 1, 2003 and June 30, 2004, we examine data from June 2005, and so on. If we do not see any loans by the sixth year, June 2009, we assume no borrowing took place in AY2003-04. We then repeat this process for all borrowers and each

[7] Lags between loan origination and appearance on the credit record occur for two reasons. First, student loan servicers do not always report every quarter. Second, a servicer could report a loan, but the data provider might not have sufficient information to positively link the loan to an existing credit record. The loan will then generate its own credit record for a (typically, short) period of time, until the data provider has sufficient information to make the link between the loan and the pre-existing credit record. At that point, the data provider will only maintain a file for the pre-existing credit record, which will include that new loan (with its original opening date).

academic year we study (2003-04 through 2007-08 entry cohorts, with up to six years of borrowing for each cohort). We do not remove loans if they disappear, since that could reflect a borrower paying off the loan. We also do not revise total borrowing amounts if they change over time, because changes in loan size could reflect refinancing.

Correctly identifying each borrower's cohort and corresponding statutory borrowing limit is central to our analysis; thus, we impose several criteria to achieve a final sample of borrowers for whom we can most confidently infer this information. First, to help ensure we are observing a borrower's true first year of postsecondary education, rather than simply her first year of borrowing, we restrict the sample to those who were at most 20 years old in the first year we observe borrowing. Second, we exclude individuals who, in their first year of borrowing, borrow above the first-year statutory limit for their cohort. Such borrowers may face a statutory higher limit because they began borrowing in a later year of schooling (in which case their cohort would be misidentified) or because they are considered financially independent according to Department of Education guidelines, or they may have obtained a student loan through the private market.[8] In any of these instances, they would not be subject to the statutory limits that generate our variation.

Once we have used these criteria to identify a sample of borrowers who began borrowing in 2003-04 through 2007-08, we then merge in full credit record data for the year before entry through eight years after entry (e.g., for the 2003-04 entry cohort, we merge data for June 2003 through June 2012). Because servicers (especially student loan servicers) do not always report every quarter, we will impute up to two years of missing student loan data, and up to one year of other type of missing data using a simple linear interpolation. When data is missing because an individual has not yet established a credit record, we assume a value of zero for all variables. We also use the panel information to further restrict the sample to include only individuals who

[8] We cannot distinguish private and federal student loans the CCP/Equifax data, but individuals that are able to borrow through the private market are likely quite different than borrowers that exclusively rely on federal loans in a manner that is not necessarily consistent over time, so it makes sense to try to exclude them. In particular, private student loans are underwritten, which implies potential borrowers must be sufficiently creditworthy to have their application approved (or, their parents sufficiently creditworthy and willing to aid their children), they are not subject to statutory limits, and their terms and availability reflect credit market conditions.

remain in the credit record data through the eighth year of after entry. Because the sampling is based on Social Security numbers, this removes individuals who legitimately passed away during that time, which could be a (fairly rare) outcome of interest. However, this process improves our confidence in the imputation of missing data as only due to servicer non-report, and also removes inadvertently duplicated individuals.[9] Our final sample includes 146, 616 borrowers, measured over 10 years each.

B.3 Tables

Table B.1: Characteristics and Higher Education Outcomes for Texas and United States

	United States	Texas
A. Population characteristics		
Fraction of population with bachelor's degree	0.357	0.310
Median household Income	$60,336	$59,336
B. Public higher education characteristics		
Educational appropriations per FTE	$7,642	$7,356
Average tuition		
Public community colleges	$3,156	$2,099
Public 4-year institutions	$8,804	$8,375
6-year graduation rates (4-yr institutions)	0.602	0.537
Student race/ethnicity		
White	0.540	0.345
Black	0.133	0.133
Hispanic	0.209	0.380

Source: 2019 THECB Almanac except for information on national enrollment by race which comes from the 2019 NCES Digest of Education Statistics Table 306.10 (https://nces.ed.gov/programs/digest/d19/tables/dt19_306.10.asp).
Notes: Race variables from fall 2018. For details of variable construction see 2019 Texas Public Higher Education Almanac. FTE = full-time equivalent students.

[9] As described above, duplicated files arise when a new loan is taken out but there is not sufficient information to link that loan to an existing credit record. These so-called "fragmentary" duplicated files typically only remain in the data a short time before the data provider is able to make a positive link, merges the loan to the existing record, and ceases reporting on the duplicated file. These "fragmentary" files are relatively more common in our sample than in the overall data because many student borrowers tend to have very little other information on their credit record when they first begin borrowing, making positive links more difficult. By restricting the sample to individuals who remain in the data through the eighth year, we should eliminate the vast majority of duplicate "fragmentary" files. Furthermore, because we use up to six years of retrospective data for assigning within school borrowing, we can be confident that we will have assigned the in-school borrowing to the appropriate individual as well, even if at the time of initial reporting, a positive link between that loan and the individual had not yet been made.

Table B.2 Credit Outcomes for Texas and All United States Borrowers

	Constrained		Unconstrained	
	2004-05	2006-08	2004-05	2006-08
A. United States borrowers				
Entry Year Borrowing	$3,588	$4,003	$2,039	$2,161
Age	18.5	18.5	18.8	18.7
Has a Credit Report	0.18	0.17	0.28	0.28
Has a Credit Score	0.15	0.15	0.26	0.26
Number of Accounts	0.23	0.22	0.45	0.42
Has a Credit Card	0.09	0.10	0.16	0.17
Has an Auto Loan	0.02	0.02	0.04	0.04
Has a Mortgage	>0.01	>0.01	>0.01	>0.01
Number of Students	41,539	65,858	16,525	22,692
B. Texas borrowers				
Entry Year Borrowing	$3,588	$4,003	$1,969	$2,056
Age	18.6	18.5	18.8	18.8
Has a Credit Report	0.22	0.21	0.30	0.29
Has a Credit Score	0.19	0.18	0.28	0.27
Number of Accounts	0.28	0.25	0.46	0.44
Has a Credit Card	0.13	0.13	0.16	0.18
Has an Auto Loan	0.02	0.02	0.04	0.04
Has a Mortgage	>0.01	>0.01	>0.01	>0.01
Number of Students	2431	3651	1350	1749

Notes: Credit report outcomes are measured in the June prior to the start of the academic year (e.g., June 2004 for the 2004-05 academic year). All dollar amounts adjusted for inflation using the CPI-U and reported in 2018$.

Appendix C: Additional Tables and Figures

Table C.1: Baseline characteristics of nonborrowers and students who borrowed above the first-year Stafford Loan limit at entry, Texas sample

	Nonborrowers		Borrowed > 1st year max	
Entry cohort =	*2001-2005*	*2006-2008*	*2001-2005*	*2006-2008*
A. Four-year college entrants				
Demographics				
Gender = male	0.48	0.49	0.44	0.45
Race = white	0.58	0.55	0.52	0.46
Race = URM	0.34	0.36	0.43	0.48
Age	18.0	17.9	18.2	18.0
Financial aid received in entry year (2018$)				
Federal Pell Grant	$727	$737	$1,280	$1,281
TEXAS Grant	$481	$593	$875	$922
Other grants	$553	$1,043	$1,584	$2,087
Work study	$46	$40	$151	$142
EFC (2018$)	$2,119	$8,221	$12,257	$13,549
COA (2018$)	$11,344	$14,670	$13,929	$17,696
Number of students	174,063	95,209	30,902	36,074
B. Community college entrants				
Demographics				
Gender = male	0.49	0.49	0.56	0.60
Race = white	0.53	0.48	0.58	0.53
Race = URM	0.40	0.45	0.39	0.45
Age	18.6	18.2	18.9	18.3
Financial aid received in entry year ($2018)				
Federal Pell Grant	$635	$708	$1,302	$1,421
TEXAS Grant	$71	$106	$341	$136
Other grants	$91	$143	$2,093	$1,337
Work study	$19	$18	$188	$68
EFC (2018$)	$1,093	$2,988	$10,070	$9,352
COA (2018$)	$7,859	$9,334	$14,075	$13,978
Number of students	580,712	333,458	4,360	3,730

Notes: The sample is limited to students who first enrolled in a public higher education institution in Texas and were classified as dependent students. Nonborrowers are students who did not have any student loans in their first year. Students who borrowed above the first-year maximum are those who borrowed above the federal Stafford Loan maximum for first-year students. URM = under-represented minority (Black, Hispanic, Native American, or Alaskan Native). EFC = expected family contribution. COA = cost of attendance (generally tuition and fees, room and board, and books and supplies).

Table C.2: Borrowing by type of loan, cohort, and constrained status, Texas sample

	Constrained borrowers		Unconstrained borrowers		Borrowing > fed max	
Entry cohort =	*2001-2005*	*2006-2008*	*2001-2005*	*2006-2008*	*2001-2005*	*2006-2008*
A. Four-year college entrants						
Federal Stafford loans						
Subsidized	$2,458	$2,563	$1,957	$1,617	$2,081	$2,143
Unsubsidized	$1,122	$1,004	$516	$427	$3,224	$3,016
State loans	$0	$1	$16	$28	$717	$1,105
PLUS loans	$1	$6	$13	$15	$2,966	$3,987
Perkins loans	$3	$16	$63	$103	$252	$240
Other loans	$2	$3	$4	$5	$1,234	$781
Total loans	$3,586	$3,592	$2,569	$2,195	$10,474	$11,273
B. Community college entrants						
Federal Stafford loans						
Subsidized	$2,419	$2,550	$1,637	$1,449	$2,356	$2,195
Unsubsidized	$1,116	$1,011	$482	$493	$2,574	$2,868
State loans	$0	$2	$19	$30	$568	$532
PLUS loans	$1	$8	$17	$16	$2,526	$1,805
Perkins loans	$2	$1	$8	$2	$189	$49
Other loans	$0	$1	$3	$2	$448	$261
Total loans	$3,539	$3,573	$2,167	$1,991	$8,661	$7,709

Notes: The sample is limited to students who first enrolled in a public higher education institution in Texas and were classified as dependent students. Constrained and unconstrained borrowers are defined in Table 3 notes. All dollar amounts adjusted for inflation using the CPI-U and reported in 2018$.

Table C.3: Treatment and baseline student characteristics for pooled Texas sample

	(1) Pred. grad rate	(2) Male	(3) White	(4) API	(5) URM	(6) Age
Dependent variable mean	0.469	0.483	0.424	0.045	0.525	18.26
Constrained × cohort ∈ {2006,2007,2008}	0.002	0.008	-0.001	0.008	-0.006	0.10
	(0.003)	(0.007)	(0.009)	(0.003)*	(0.009)	(0.07)

	(7) CC entrant	(8) Pell Grant aid	(9) TEXAS Grant aid	(10) Other grant aid	(11) Work study aid	(12) EFC
Dependent variable mean	0.372	$1877	$972	$1433	$130	$8137
Constrained × cohort ∈ {2006,2007,2008}	-0.002	63	-80	16	16	696
	(0.002)	(82)	(104)	(103)	(15)	(849)

Notes: The sample is limited to student borrowers who first enrolled in a public higher education institution in Texas, were classified as dependent students, and borrowed at or below the federal Stafford Loan maximum for first-year students (N = 117,254). Each column includes estimates from separate regressions; dependent variable indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, and entry school fixed effects. Predicted graduation rate is a linear prediction of the probability of receiving any degree within 8 years of college entry on the other characteristics displayed in this table and school of entry fixed effects. URM = underrepresented minority. API = Asian or Pacific Islander. EFC = expected family contribution. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$.

Table C.4: Treatment and baseline financial aid receipt by entry college, Texas sample

	(1) Pell Grant aid	(2) TEXAS Grant aid	(3) Other grant aid	(4) Work study aid	(5) EFC
A. Four-year college entrants (N = 74,132)					
Dependent variable mean	$1920	$1412	$1969	$173	$9026
Constrained × cohort ∈ {2006,2007,2008}	-125	-302	-197	12	1720
	(115)	(167)+	(184)	(27)	(1206)
B. Community college entrants (N = 43,122)					
Dependent variable mean	$1805	$228	$528	$59	$6639
Constrained × cohort ∈ {2006,2007,2008}	212	55	-39	7	-938
	(62)*	(47)	(54)	(11)	(364)

Notes: The sample is limited to student borrowers who first enrolled in a public four-year institution (Panel A) or public community college (Panel B) in Texas, were classified as dependent students, and borrowed at or below the federal Stafford Loan maximum for first-year students. Each column within a panel includes estimates from separate regressions; dependent variable indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, and entry school fixed effects. EFC = expected family contribution. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$.

Table C.5: The effect of loan limit increases on the probability of any borrowing, Texas sample

X =	1	2	3	4	5	6
A. Entered 4-year institution (N = 74,132)						
Dependent variable mean	0.599	0.521	0.478	0.340		
Constrained x Cohort in {2006,2007,2008}	0.048	0.045	0.041	0.011	0.007	-0.0004
	(0.013)**	(0.014)**	(0.013)**	(0.012)	(0.010)	(0.007)
	{0.095}	{0.030}	{0.012}	{0.059}	{0.178}	{0.903}
B. Entered community college (N = 43,122)						
Dependent variable mean	0.391	0.265	0.215	0.175		
Constrained x Cohort in {2006,2007,2008}	0.020	0.027	0.020	0.023	0.002	-0.002
	(0.014)	(0.009)**	(0.009)*	(0.009)*	(0.007)	(0.006)
	{0.037}	{0.023}	{0.046}	{0.035}	{0.834}	{0.814}

Notes: The sample is limited to student borrowers who first enrolled in a public four-year institution (Panel A) or public community college (Panel B) in Texas, were classified as dependent students, and borrowed at or below the federal Stafford Loan maximum for first-year students. Each column within a panel contains estimates from separate regressions; dependent variable is the probability of borrowing any student loans X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.6: Effects of loan limits on cumulative federal Stafford Loans, Texas sample

X =	0	1	2	3	4	5	6
A. Entered 4-year institution (N = 74,132)							
Dependent variable mean	$3029	$5621	$8755	$12,089	$14,462	$15,755	$16,632
Constrained x Cohort in {2006,2007,2008}	215	567	907	1254	1330	1356	1371
	(98)*	(134)**	(188)**	(251)**	(306)**	(334)**	(355)**
	{0.569}	{0.229}	{0.159}	{0.084}	{0.074}	{0.091}	{0.073}
B. Entered community college (N = 43,122)							
Dependent variable mean	$2661	$4116	$5513	$6967	$8335	$9450	$10,347
Constrained x Cohort in {2006,2007,2008}	73	241	512	688	851	873	804
	(26)**	(76)**	(119)**	(171)**	(218)**	(255)**	(284)**
	{0.806}	{0.590}	{0.258}	{0.108}	{0.043}	{0.046}	{0.053}

Notes: See Table C.6 notes for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative federal Stafford Loans ($1k) X years after entry, where the value of X is indicated in column heading. See Table C.2 for dependent variable means. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets.

Table C.7: Effects of loan limits on cumulative state loans, Texas sample

Years since entry =	0	1	2	3	4	5	6
A. Four-year entrants (N = 74,132)							
Dependent variable mean	$9	$79	$92	$106	$63	$25	$8
Constrained × cohort ∈ {2006,2007,2008}	-6	4	11	27	7	14	10
	(5)	(23)	(38)	(54)	(64)	(63)	(63)
	{0.799}	{0.930}	{0.854}	{0.769}	{0.949}	{0.892}	{0.928}
B. Community college entrants (N = 43,122)							
Dependent variable mean	$14	$24	$36	$49	$42	$18	$9
Constrained × cohort ∈ {2006,2007,2008}	-0.2	-11	-29	-19	8	33	42
	(6)	(15)	(25)	(37)	(46)	(52)	(51)
	{0.992}	{0.686}	{0.351}	{0.538}	{0.744}	{0.313}	{0.299}

Notes: See Table C.6 notes for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative Texas state loans ($1k) X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets.

Table C.8: The effect of loan limit increases on constrained students' educational attainment: Community college entrants

X =	1	2	3	4	5	6	7	8
A. Enrollment X years later								
Dependent variable mean	0.680	0.504	0.405	0.334	0.259	0.199	0.158	0.131
Constrained × cohort ∈ {2006,2007,2008}	0.050	0.039	0.037	0.033	0.008	0.001	-0.001	0.003
	(0.012)**	(0.011)**	(0.01)**	(0.012)**	(0.011)	(0.009)	(0.006)	(0.008)
	{0.009}	{0.017}	{0.012}	{<0.001}	{0.372}	{0.903}	{0.925}	{0.532}
B. Cumulative years of enrollment								
Dependent variable mean	1.68	2.18	2.59	2.92	3.18	3.38	3.54	3.67
Constrained × cohort ∈ {2006,2007,2008}	0.05	0.09	0.13	0.16	0.17	0.17	0.17	0.17
	(0.01)**	(0.02)**	(0.03)**	(0.04)**	(0.04)**	(0.05)**	(0.05)**	(0.06)**
	{0.010}	{0.011}	{0.010}	{0.008}	{0.004}	{0.001}	{0.006}	{0.004}
C. Cumulative credits attempted								
Dependent variable mean	37.80	47.87	55.84	62.19	66.79	70.14	72.71	74.79
Constrained × cohort ∈ {2006,2007,2008}	2.52	3.58	4.52	5.21	5.39	5.49	5.51	5.58
	(0.59)**	(0.71)**	(0.94)**	(1.15)**	(1.27)**	(1.29)**	(1.29)**	(1.33)**
	{0.056}	{0.027}	{0.016}	{0.027}	{0.030}	{0.027}	{0.041}	{0.023}
D. Any degree or credential								
Dependent variable mean	0.047	0.091	0.133	0.187	0.231	0.261	0.282	0.299
Constrained × cohort ∈ {2006,2007,2008}	0.001	0.006	0.006	0.014	0.012	0.018	0.014	0.017
	(0.007)	(0.008)	(0.009)	(0.009)	(0.010)	(0.010)+	(0.011)	(0.011)
	{0.934}	{0.783}	{0.676}	{0.290}	{0.462}	{0.285}	{0.366}	{0.238}
E. Bachelor's degree								
Dependent variable mean			0.019	0.055	0.094	0.121	0.139	0.153
Constrained × cohort ∈ {2006,2007,2008}			-0.001	0.003	-0.003	0.001	0.0004	-0.0004
			(0.004)	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)
			{0.920}	{0.814}	{0.765}	{0.896}	{0.971}	{0.962}
F. Associate degree								
Dependent variable mean		0.053	0.079	0.099	0.113	0.124	0.133	0.141
Constrained × cohort ∈ {2006,2007,2008}		0.006	0.010	0.015	0.016	0.020	0.019	0.021
		(0.005)	(0.006)	(0.007)*	(0.008)*	(0.008)*	(0.009)*	(0.008)*
		{0.631}	{0.388}	{0.188}	{0.204}	{0.111}	{0.120}	{0.098}

Notes: See Table C.5 notes for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.9: The effect of loan limit increases on additional measures of attainment, Texas four-year entrants

X =	1	2	3	4	5	6	7	8
A. Enrollment in four-year institution, X years later								
Dependent variable mean	0.753	0.650	0.601	0.421	0.216	0.122	0.078	0.055
Constrained × cohort ∈ {2006,2007,2008}	0.075	0.061	0.055	0.022	0.008	-0.005	-0.011	-0.001
	(0.012)**	(0.011)**	(0.010)**	(0.011)**	(0.009)	(0.007)	(0.004)**	(0.004)
	{<0.001}	{<0.001}	{<0.001}	{0.032}	{0.532}	{0.186}	{0.026}	{0.802}
B. Enrollment in community college, X years later								
Dependent variable mean	0.193	0.201	0.176	0.143	0.112	0.091	0.075	0.063
Constrained × cohort ∈ {2006,2007,2008}	-0.015	-0.006	-0.002	-0.001	-0.009	-0.004	-0.006	-0.005
	(0.008)+	(0.006)	(0.007)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
	{0.119}	{0.250}	{0.699}	{0.891}	{0.110}	{0.357}	{0.297}	{0.055}
C. Cumulative years of enrollment in four-year institutions								
Dependent variable mean	1.75	2.40	3.00	3.42	3.64	3.76	3.84	3.90
Constrained × cohort ∈ {2006,2007,2008}	0.07	0.14	0.19	0.21	0.15	0.21	0.20	0.20
	(0.01)**	(0.02)**	(0.03)**	(0.04)**	(0.03)**	(0.05)**	(0.04)**	(0.04)**
	{0.001}	{<0.001}	{<0.001}	{0.005}	{<0.001}	{<0.001}	{<0.001}	{<0.001}
D. Cumulative years of enrollment in community colleges								
Dependent variable mean	0.19	0.39	0.57	0.71	0.83	0.92	0.99	1.05
Constrained × cohort ∈ {2006,2007,2008}	-0.01	-0.02	-0.02	-0.02	-0.03	-0.04	-0.04	-0.05
	(0.01)+	(0.01)+	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)+
	{0.098}	{0.083}	{0.078}	{0.176}	{0.132}	{0.112}	{0.057}	{0.048}
E. Cumulative credits attempted at four-year institutions								
Dependent variable mean	45.85	63.83	80.13	89.66	94.07	96.43	97.90	98.93
Constrained × cohort ∈ {2006,2007,2008}	3.18	4.78	6.06	6.51	6.67	6.68	6.48	6.53
	(0.65)**	(0.97)**	(1.28)**	(1.38)**	(1.40)**	(1.42)**	(1.40)**	(1.37)**
	{0.002}	{<0.001}	{0.006}	{0.005}	{0.006}	{<0.001}	{0.016}	{0.001}
F. Cumulative credits attempted at community colleges								
Dependent variable mean	5.75	9.21	11.85	13.82	15.31	16.51	17.50	18.31
Constrained × cohort ∈ {2006,2007,2008}	-0.34	-0.50	-0.64	-0.75	-0.93	-1.07	-1.12	-1.14
	(0.18)+	(0.26)+	(0.32)*	(0.35)*	(0.40)*	(0.44)*	(0.48)*	(0.49)*
	{0.061}	{0.064}	{0.043}	{0.063}	{0.038}	{0.038}	{0.028}	{0.027}

Notes: Texas sample, see Table 3 notes for definition (N = 74,132). Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.10: The effect of loan limit increases on additional measures of attainment, Texas community college entrants

X =	1	2	3	4	5	6	7	8
A. Enrollment in four-year institution, X years later								
Dependent variable mean	0.044	0.110	0.141	0.140	0.111	0.078	0.056	0.044
Constrained × cohort ∈ {2006,2007,2008}	-0.003	0.014	0.022	0.014	-0.001	0.001	-0.002	-0.002
	(0.004)	(0.009)	(0.010)*	(0.010)	(0.007)	(0.005)	(0.004)	(0.004)
	{0.265}	{0.081}	{0.059}	{0.085}	{0.942}	{0.704}	{0.577}	{0.449}
B. Enrollment in community college, X years later								
Dependent variable mean	0.644	0.413	0.279	0.208	0.159	0.126	0.106	0.090
Constrained × cohort ∈ {2006,2007,2008}	0.054	0.037	0.020	0.029	0.014	-0.002	-0.003	0.003
	(0.011)**	(0.011)**	(0.013)	(0.009)**	(0.009)	(0.009)	(0.006)	(0.007)
	{0.017}	{0.021}	{0.039}	{0.013}	{0.055}	{0.829}	{0.799}	{0.609}
C. Cumulative years of enrollment in four-year institutions								
Dependent variable mean	0.04	0.15	0.29	0.43	0.55	0.62	0.68	0.72
Constrained × cohort ∈ {2006,2007,2008}	-0.003	0.01	0.03	0.05	0.05	0.05	0.04	0.04
	(0.004)	(0.01)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
	{0.262}	{0.273}	{0.100}	{0.093}	{0.128}	{0.120}	{0.163}	{0.179}
D. Cumulative years of enrollment in community colleges								
Dependent variable mean	1.64	2.06	2.34	2.54	2.70	2.83	2.93	3.02
Constrained × cohort ∈ {2006,2007,2008}	0.05	0.09	0.11	0.14	0.15	0.15	0.15	0.15
	(0.01)**	(0.02)**	(0.03)**	(0.04)**	(0.04)**	(0.05)**	(0.05)**	(0.05)**
	{0.019}	{0.011}	{0.015}	{0.012}	{0.004}	{0.018}	{0.018}	{0.026}
E. Cumulative credits attempted at four-year institutions								
Dependent variable mean	0.92	3.48	6.96	10.24	12.58	14.13	15.19	16.00
Constrained × cohort ∈ {2006,2007,2008}	-0.03	0.43	1.05	1.30	1.31	1.29	1.34	1.33
	(0.10)	(0.30)	(0.57)+	(0.81)	(0.87)	(0.89)	(0.91)	(0.93)
	{0.611}	{0.035}	{0.020}	{0.032}	{0.058}	{0.080}	{0.099}	{0.099}
F. Cumulative credits attempted at community colleges								
Dependent variable mean	51.65	73.12	92.09	103.61	109.53	113.11	115.58	117.43
Constrained × cohort ∈ {2006,2007,2008}	2.57	3.19	3.53	3.98	3.16	4.25	4.20	4.29
	(0.56)**	(0.62)**	(0.73)**	(0.79)**	(0.82)**	(0.83)**	(0.82)**	(0.84)**
	{0.027}	{0.026}	{0.029}	{0.033}	{0.028}	{0.021}	{0.021}	{0.029}

Notes: Texas sample, see Table 3 notes for definition (N = 74,132). Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.11: The effect of loan limit increases on constrained students' earnings, Texas sample

X =	1	2	3	4	5	6	7	8
A. Four-year entrants (N = 74,132)								
Dependent variable mean	$7726	$8927	$10,896	$15,607	$20,829	$24,653	$27,699	$30,266
Constrained × cohort ∈ {2006,2007,2008}	-84	-86	-70	-55	31	70	99	159
	(31)**	(36)*	(37)+	(48)	(73)	(70)	(69)	(82)+
	{0.074}	{0.077}	{0.169}	{0.681}	{0.246}	{0.063}	{0.09}	{0.072}
B. Community college entrants (N = 43,122)								
Dependent variable mean	$10,051	$12,053	$13,881	$15,856	$18,108	$20,310	$22,189	$23,861
Constrained × cohort ∈ {2006,2007,2008}	20	26	-47	-73	-15	-25	14	39
	(32)	(38)	(47)	(52)	(53)	(69)	(72)	(87)
	{0.566}	{0.539}	{0.47}	{0.446}	{0.588}	{0.372}	{0.324}	{0.443}

Notes: See Table C.5 notes for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Earnings are winsorized at the 99th percentile. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.12: The effect of loan limit increases on constrained students' labor market outcomes: Community college entrants

X =	1	2	3	4	5	6	7	8
A. Ln(earnings) X years after entry								
Dependent variable mean	8.920	9.135	9.307	9.453	9.614	9.757	9.868	9.954
Constrained × cohort ∈ {2006,2007,2008}	0.007	0.003	-0.063	-0.037	0.012	-0.024	-0.021	0.0004
	(0.027)	(0.032)	(0.029)*	(0.028)	(0.031)	(0.026)	(0.027)	(0.031)
	{0.841}	{0.912}	{0.024}	{0.474}	{0.529}	{0.363}	{0.350}	{0.979}
Observations	36,419	35,307	34,488	34,114	33,769	33,405	33,020	32,665
B. Any earnings X years after entry								
Dependent variable mean	0.844	0.818	0.800	0.791	0.783	0.774	0.763	0.757
Constrained × cohort ∈ {2006,2007,2008}	0.012	0.022	0.021	0.010	0.005	0.011	0.013	0.006
	(0.008)	(0.009)*	(0.009)*	(0.010)	(0.010)	(0.011)	(0.009)	(0.008)
	{0.026}	{0.011}	{0.011}	{0.269}	{0.423}	{0.352}	{0.143}	{0.451}
Observations	43,122	43,122	43,122	43,122	43,122	43,122	43,122	43,122

Notes: See Table C.5 notes for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.13: The effect of loan limit increases on neighborhood quality, CCP/Equifax sample

X =	4	5	6	7	8
A. Zip code mean wage income					
Dependent variable mean	$51,778	$51,334	$50,225	$52,554	$53,585
Constrained × cohort ∈ {2006,2007,2008}	882	919	746	675	935
	(264)**	(257)**	(262)**	(297)+	(307)**
	{0.016}	{0.002}	{0.006}	{0.052}	{0.017}
B. Zip code mean AGI					
Dependent variable mean	$72,007	$71,855	$71,267	$74,976	$76,740
Constrained × cohort ∈ {2006,2007,2008}	1888	1972	1574	1255	1570
	(442)**	(423)**	(446)**	(539)*	(522)**
	{0.006}	{0.014}	{0.044}	{0.069}	{0.033}
C. Zip code median house price					
Dependent variable mean	$260,059	$251,453	$244,896	$256,994	$268,737
Constrained × cohort ∈ {2006,2007,2008}	2495	1270	2827	4681	6825
	(2420)	(2349)	(2083)	(2286)*	(2529)**
	{0.195}	{0.400}	{0.004}	{0.023}	{0.047}

Notes: See Table C.9 notes for sample definition and specification. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Zip code median house prices = Zillow Housing Value Index. Robust standard errors, clustered by entry state, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.14: The effect of loan limit increases on additional financial outcomes, CCP/Equifax

X =	4	5	6	7	8
A. Has 1+ credit cards (N = 145,616)					
Dependent variable mean	0.641	0.656	0.675	0.697	0.719
Constrained × cohort ∈ {2006,2007,2008}	-0.018	-0.017	-0.014	-0.013	-0.018
	(0.007)*	(0.006)*	(0.007)*	(0.006)*	(0.005)*
	{0.122}	{0.048}	{0.051}	{0.172}	{0.098}
Observations	145,616	145,616	145,616	145,616	145,616
B. Mortgage size at origination					
Dependent variable mean	$154,300	$157,244	$157,078	$167,612	$176,407
Constrained × cohort ∈ {2006,2007,2008}	-6413	-5557	-2447	-209	1797
	(4038)	(3424)	(2325)	(3326)	(2951)
	{0.241}	{0.148}	{0.481}	{0.955}	{0.688}
Observations	5,494	8,897	13,150	17,607	22,536
C. Pseudo loan to value ratio					
Dependent variable mean	0.847	0.886	0.906	0.923	0.924
Constrained × cohort ∈ {2006,2007,2008}	-0.045	-0.018	0.013	0.017	0.003
	(0.021)*	(0.018)	(0.016)	(0.016)	(0.012)
	{0.007}	{0.516}	{0.463}	{0.241}	{0.869}
Observations	5,494	8,897	13,150	17,607	22,536
D. Auto loan size at origination					
Dependent variable mean	$19,572	$20,125	$20,352	$21,878	$22,943
Constrained × cohort ∈ {2006,2007,2008}	14	97	-11	-100	-407
	(229)	(255)	(252)	(227)	(222)+
	{0.978}	{0.857}	{0.971}	{0.821}	{0.201}
Observations	37,710	45,208	51,874	57,952	63,113
E. Credit score					
Dependent variable mean	640	642	645	649	655
Constrained × cohort ∈ {2006,2007,2008}	-0.1	-0.3	1.5	3.0	2.9
	(1.0)	(1.3)	(1.3)	(1.3)*	(1.2)*
	{0.919}	{0.821}	{0.390}	{0.052}	{0.399}
Observations	145,616	145,616	145,616	145,616	145,616
F. Credit score is in bottom quintile					
Dependent variable mean	0.288	0.300	0.308	0.309	0.302
Constrained × cohort ∈ {2006,2007,2008}	-0.013	-0.014	-0.016	-0.018	-0.017
	(0.005)*	(0.006)*	(0.006)**	(0.006)**	(0.006)**
	{0.035}	{0.118}	{0.117}	{0.061}	{0.035}
Observations	145,616	145,616	145,616	145,616	145,616

Notes: See Table C.9 notes for sample definition and specification. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Loan to volume ratio equals mortgage size/Zillow Housing Value Index. Credit score = Equifax risk score. Robust standard errors, clustered by entry state, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table C.15: IV estimates for attainment and earnings 8 years after entry, Texas community college entrants

	(1) Total years enrolled	(2) Total credits earned	(3) Any degree	(4) Bachelor's degree	(5) Associate degree	(6) Ln(earnings)
Cumulative loans ($1k)	0.165	5.41	0.016	-0.0004	0.021	0.001
	(0.044)*	(1.45)**	(0.009)+	(0.008)	(0.009)*	(0.037)
Observations	43,122	43,121	43,121	43,121	43,121	32,664

Notes: Texas sample, see Table C.5 notes for sample definition. Each column contains estimates from separate regressions; dependent variable is indicated in the column heading, measured 8 years after entry. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. The interaction between constrained at entry and belonging to the 2006 through 2008 entry cohorts serves as excluded instrument. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$.

Table C.16: Robustness of attainment and earnings estimates, Texas sample

	(1) Cum. student loans	(2) Cum. years enrolled	(3) Cum. credits attempted	(4) Any degree	(5) Ln(earnings)
A. Main sample and specification					
Constrained × cohort ∈ {2006,2007,2008}	1365	0.144	5.68	0.042	0.036
	(498)**	(0.029)**	(0.86)**	(0.008)**	(0.014)*
Observations	117,254	117,254	117,254	117,254	89,779
B. No controls					
Constrained × cohort ∈ {2006,2007,2008}	2233	0.204	7.31	0.043	0.021
	(967)*	(0.076)**	(2.66)**	(0.024)+	(0.030)
Observations	117,254	117,254	117,254	117,254	89,779
C. Only school FE					
Constrained × cohort ∈ {2006,2007,2008}	1310	0.128	5.27	0.041	0.039
	(511)*	(0.031)**	(0.93)**	(0.009)**	(0.014)**
Observations	117,254	117,254	117,254	117,254	89,779
D. Omit 2001 cohort					
Constrained × cohort ∈ {2006,2007,2008}	1550	0.129	5.17	0.040	0.027
	(512)**	(0.032)**	(0.87)**	(0.008)**	(0.015)+
Observations	104,753	104,753	104,753	104,753	80,217
E. Include nonprofits					
Constrained × cohort ∈ {2006,2007,2008}	1367	0.147	5.31	0.043	0.032
	(469)**	(0.027)**	(0.82)**	(0.007)**	(0.013)*
Observations	132,031	132,031	132,031	132,031	99,216
F. CCP sample restrictions					
Constrained × cohort ∈ {2006,2007,2008}	2021	0.092	3.94	0.027	0.021
	(579)**	(0.039)*	(1.00)**	(0.008)**	(0.016)
Observations	85,528	85,528	85,528	85,528	65,896
G. 2001 sample restrictions in every year					
Constrained × cohort ∈ {2006,2007,2008}	1349	0.124	5.14	0.042	0.043
	(526)*	(0.031)**	(0.94)**	(0.009)**	(0.014)**
Observations	113,569	113,569	113,569	113,569	87,071
H. Unconstrained borrow $1300+					
Constrained × cohort ∈ {2006,2007,2008}	1824	0.159	6.39	0.050	0.050
	(544)**	(0.037)**	(1.15)**	(0.010)**	(0.017)**
Observations	100,885	100,885	100,885	100,885	77,567

Notes: See Table C.5 notes for description of sample and specification. Each cell within a panel contain estimates from separate regressions; dependent variable indicated in column heading. Cumulative student loans measured 6 years after entry; all other outcomes are measured 8 years after entry. All specifications include indicator for constrained at entry, cohort entry year fixed effects. Specifications also include controls for race (white, URM), age at entry, EFC at entry, gender, and entry institution fixed effects (unless otherwise noted). Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

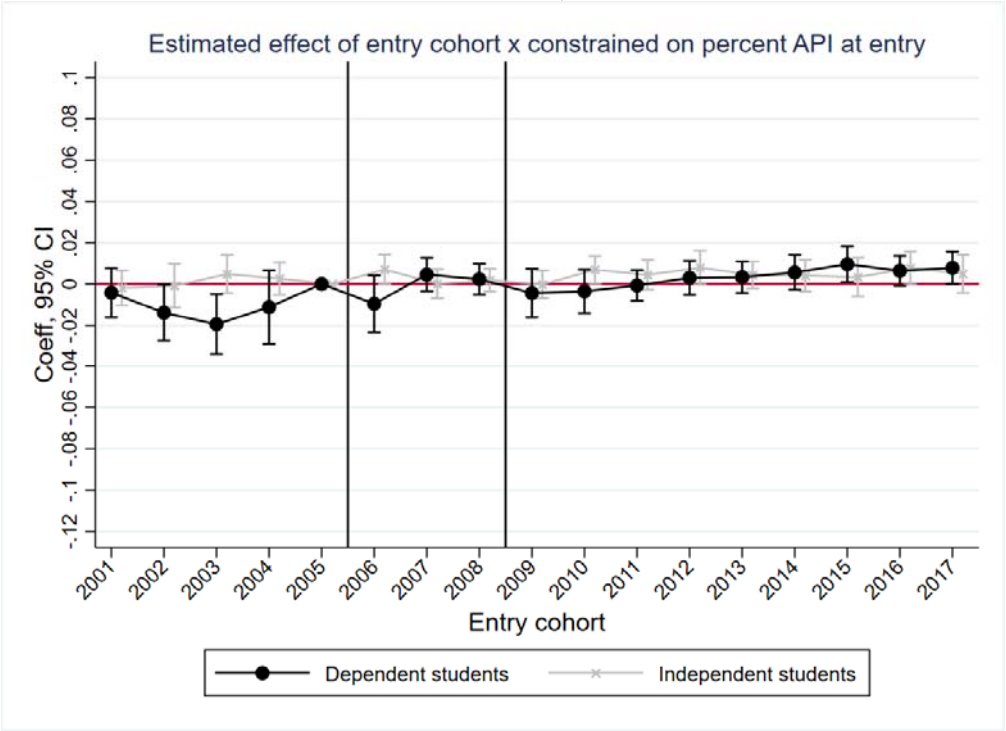
Table C.17: Robustness of financial outcomes, CCP/Equifax sample

	(1) Cum. student loans	(2) Delinquent (stud. loans)	(3) Default (stud. loans)	(4) Any Delinquent debt	(5) Any mortgage
A. No controls (N=145,616)					
Constrained × cohort ∈ {2006,2007,2008}	2273	-0.016	-0.020	-0.005	0.002
	(561)**	(0.005)**	(0.004)**	(0.005)	(0.004)
	{0.146}	{0.136}	{0.095}	{0.488}	{0.697}
B. Texas Borrowers (N=9,181)					
Constrained × cohort ∈ {2006,2007,2008}	465	0.006	-0.009	-0.001	-0.009
	(1904)	(0.020)	(0.018)	(0.016)	(0.015)
	{0.863}	{0.848}	{0.730}	{0.944}	{0.728}
C. Unconstrained borrow $1300+ (N=132,958)					
Constrained × cohort ∈ {2006,2007,2008}	2974	-0.016	-0.020	-0.003	0.0001
	(635)**	(0.006)*	(0.005)**	(0.006)	(0.005)
	{0.125}	{0.254}	{0.163}	{0.428}	{0.947}

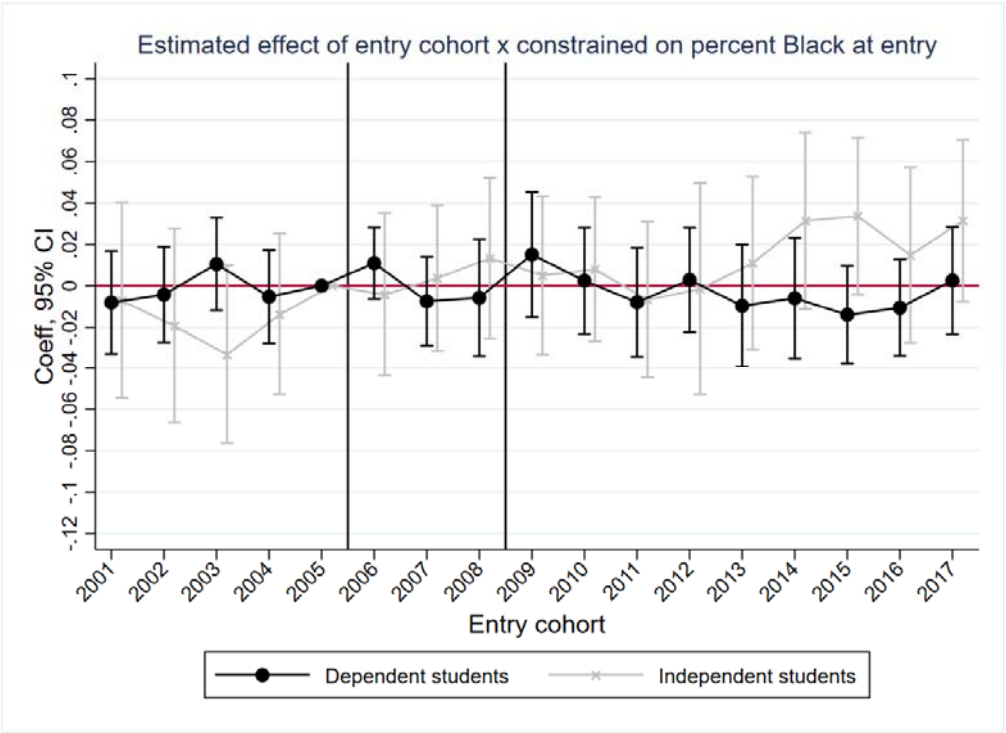
Notes: See Table C.9 notes for sample definition. Each cell within a panel contain estimates from separate regressions; dependent variable indicated in column heading. Cumulative student loans measured 6 years after entry; all other outcomes are measured 8 years after entry. All specifications include indicator for constrained at entry, cohort entry year fixed effects. Specifications also include age fixed effects and entry institution fixed effects (unless otherwise noted). Robust standard errors, clustered by entry state, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Figure C.1 Loan Limit Increases and Characteristics of Constrained Borrowers, Texas sample

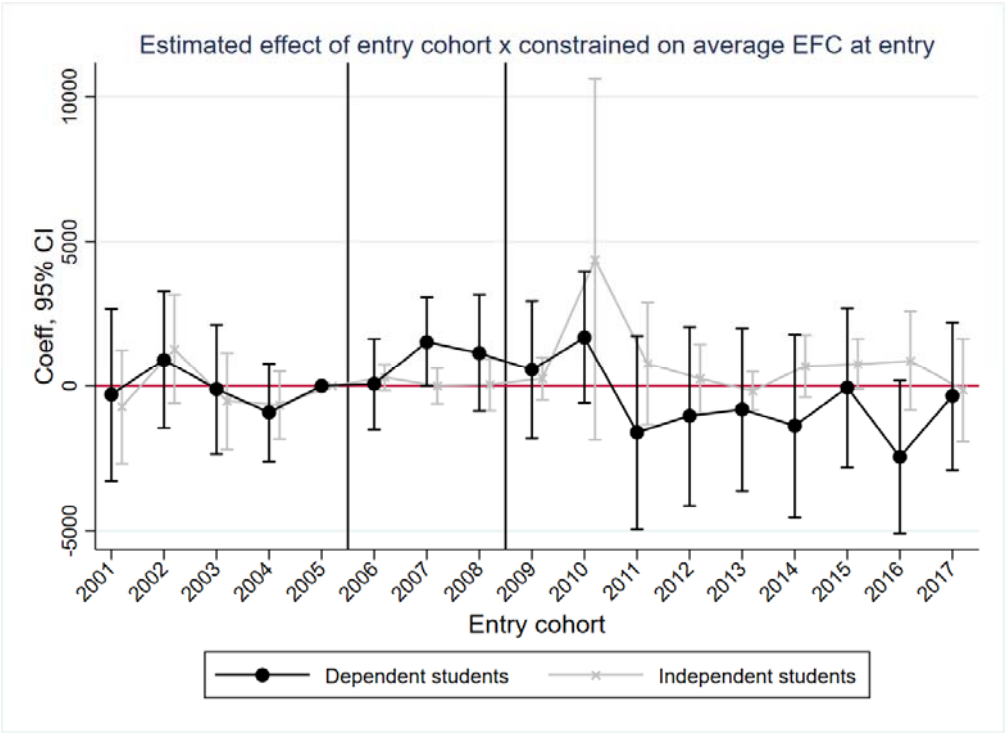
A. Asian or Pacific Islander



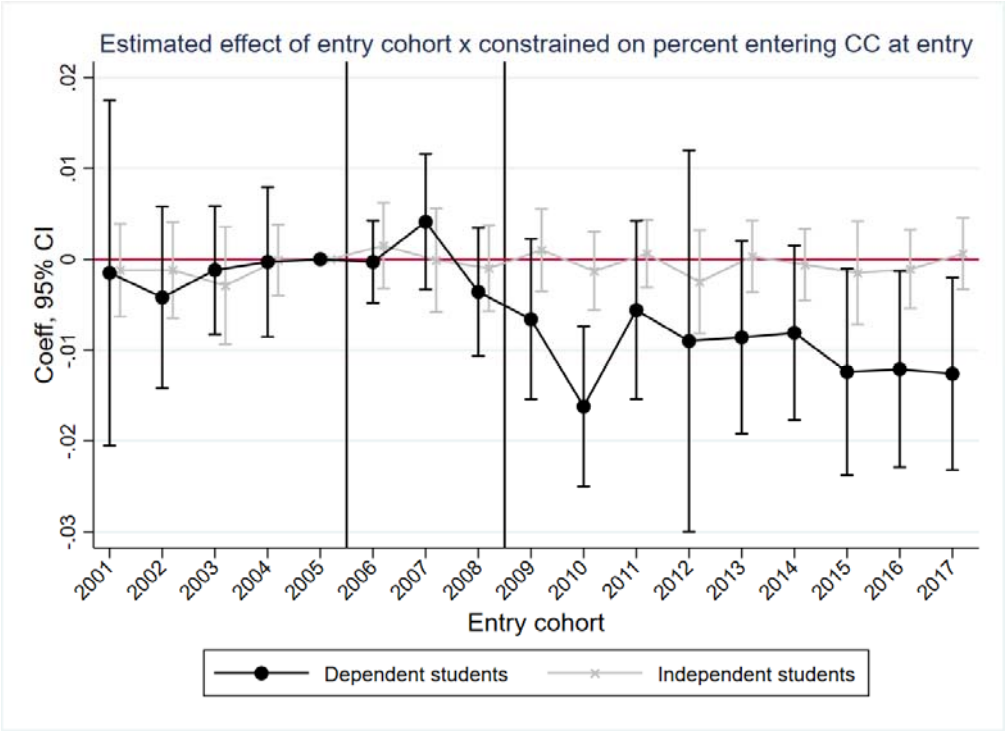
B. Black



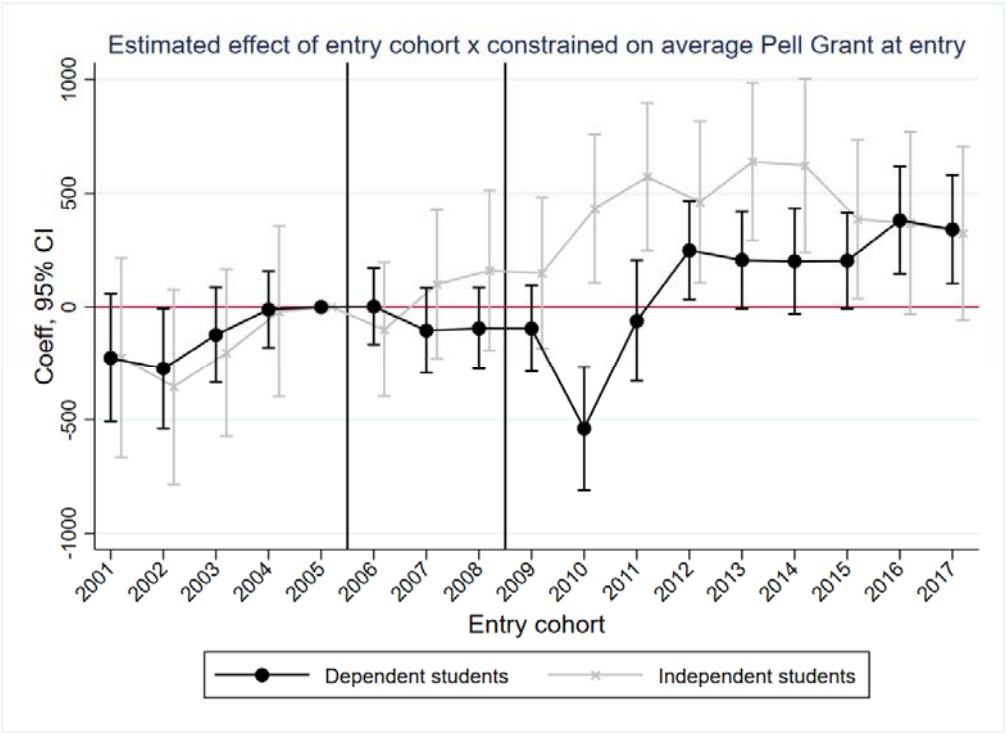
C. Expected Family Contribution



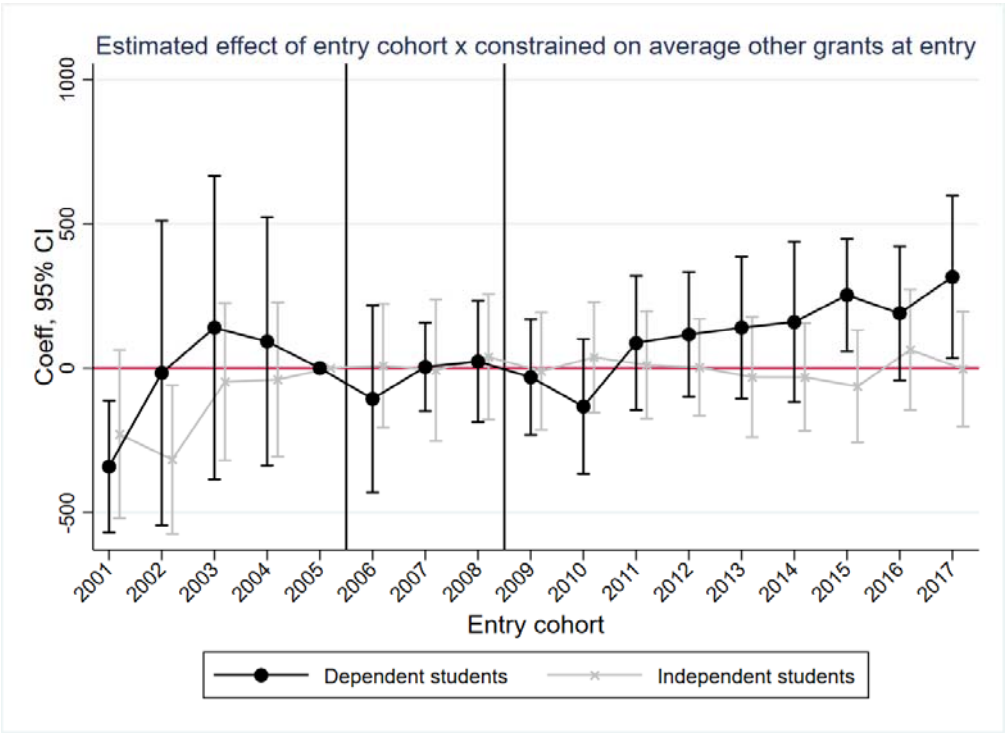
D. Initially enrolled in community college



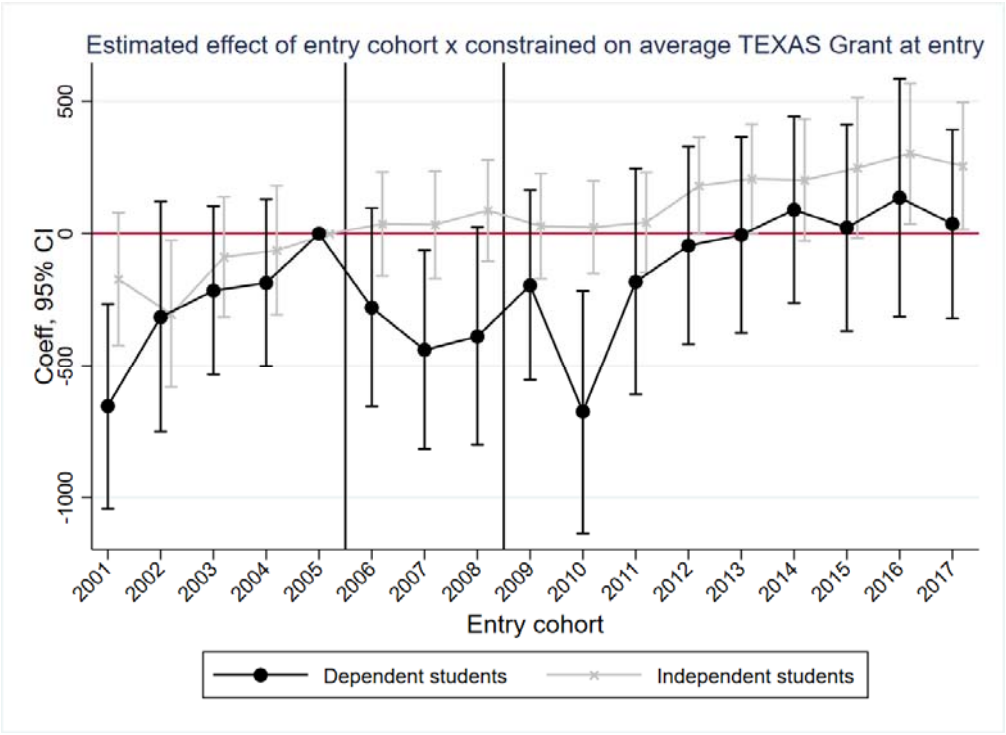
E. Pell Grant aid



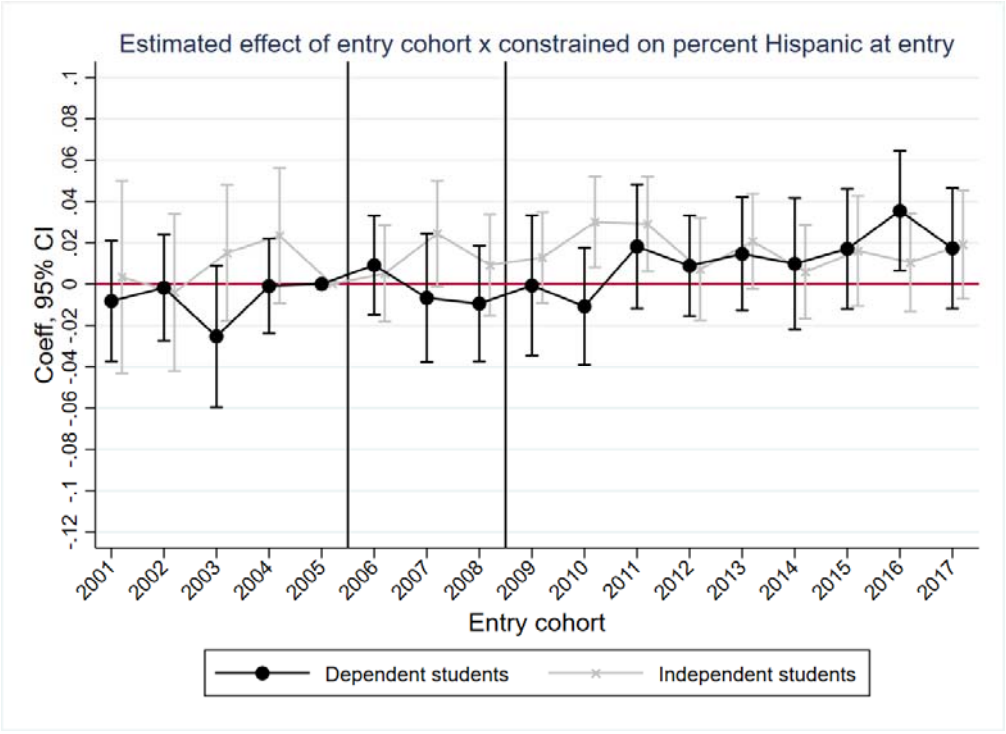
F. Other grant aid



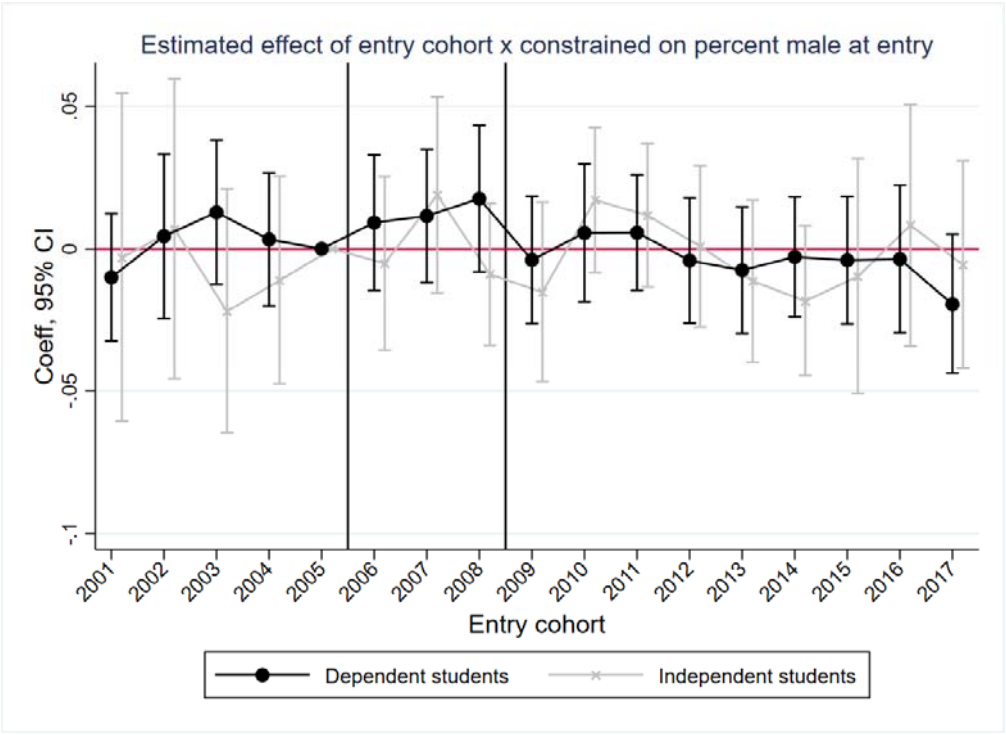
G. TEXAS Grant aid



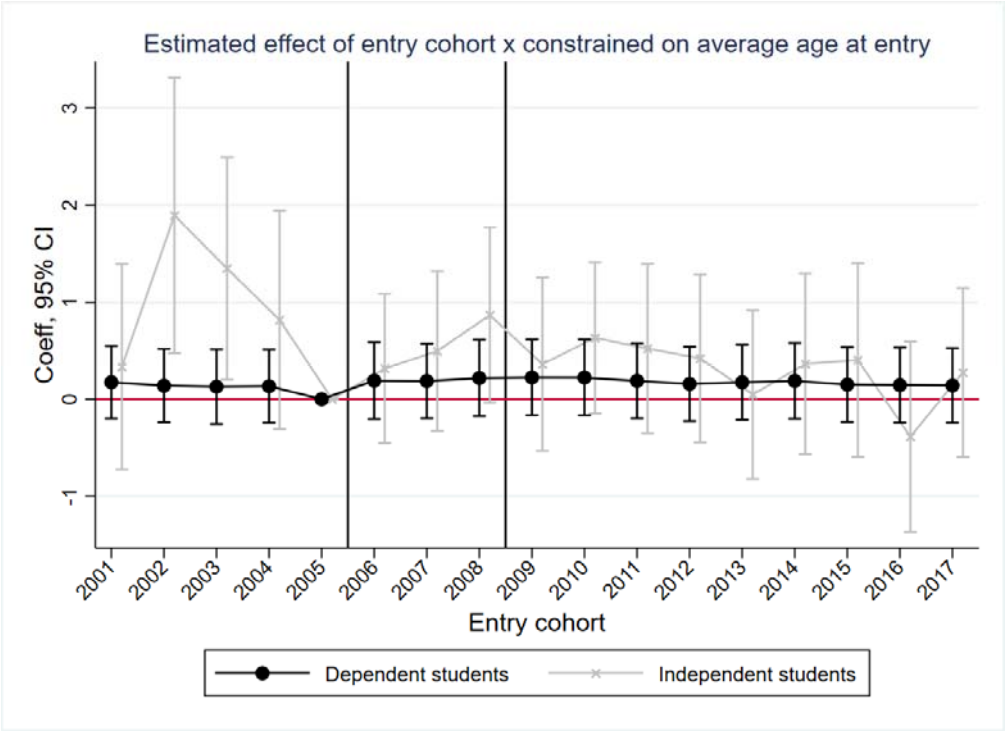
H. Hispanic



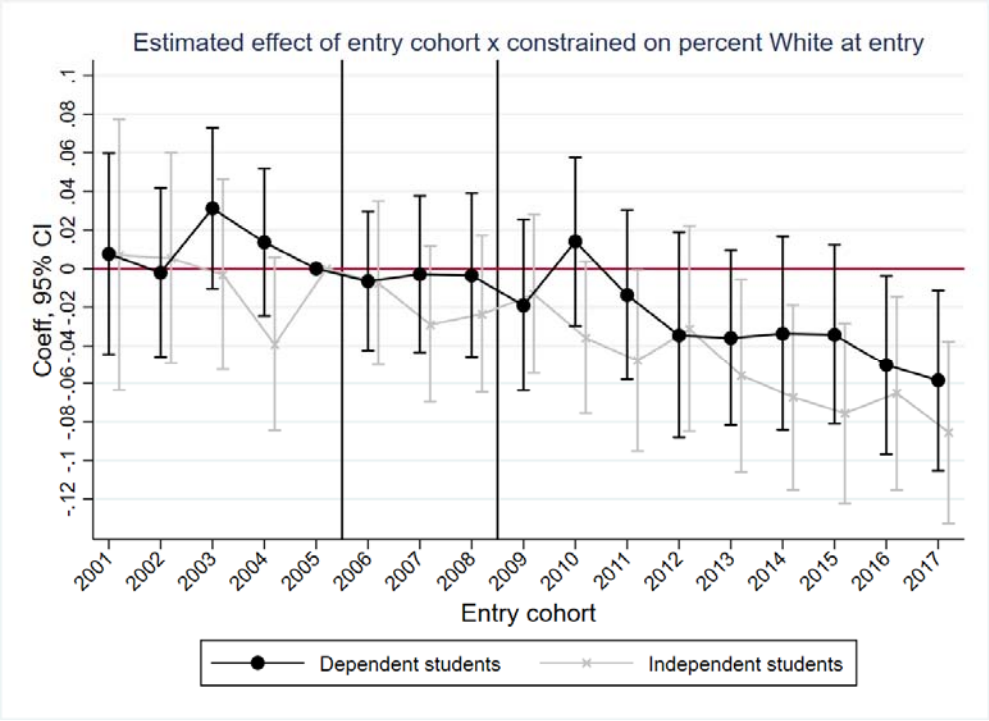
I. Male


Estimated effect of entry cohort x constrained on percent male at entry
Coeff, 95% CI
.05
0
-.05
-.1
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Entry cohort
Dependent students
Independent students

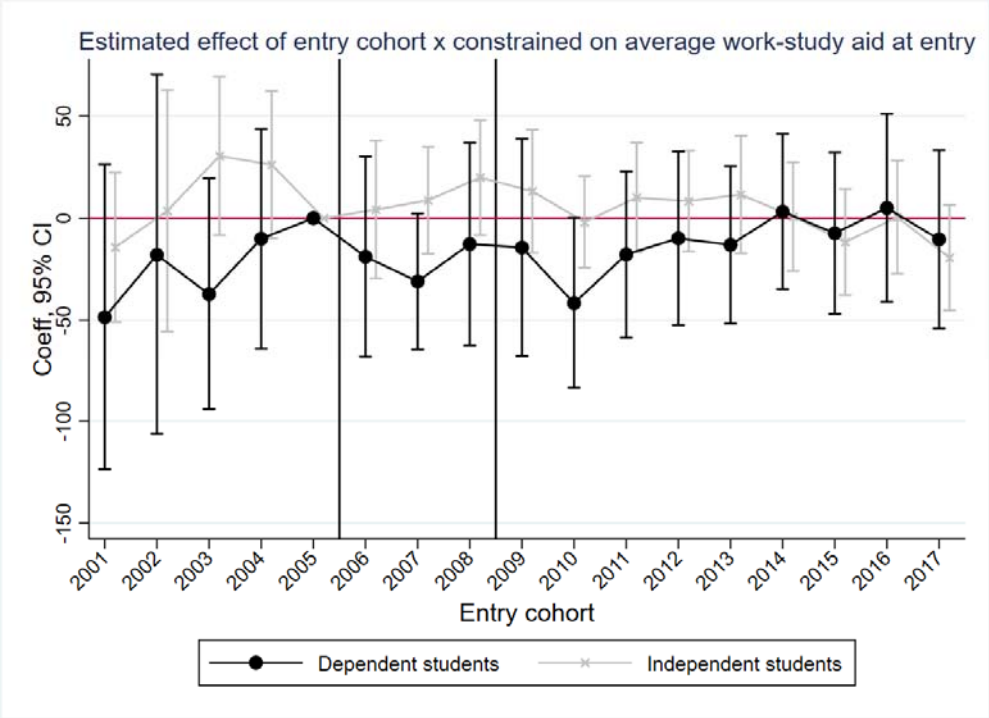
J. Age


Estimated effect of entry cohort x constrained on average age at entry
Coeff, 95% CI
3
2
1
0
-1
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Entry cohort
Dependent students
Independent students

K. White

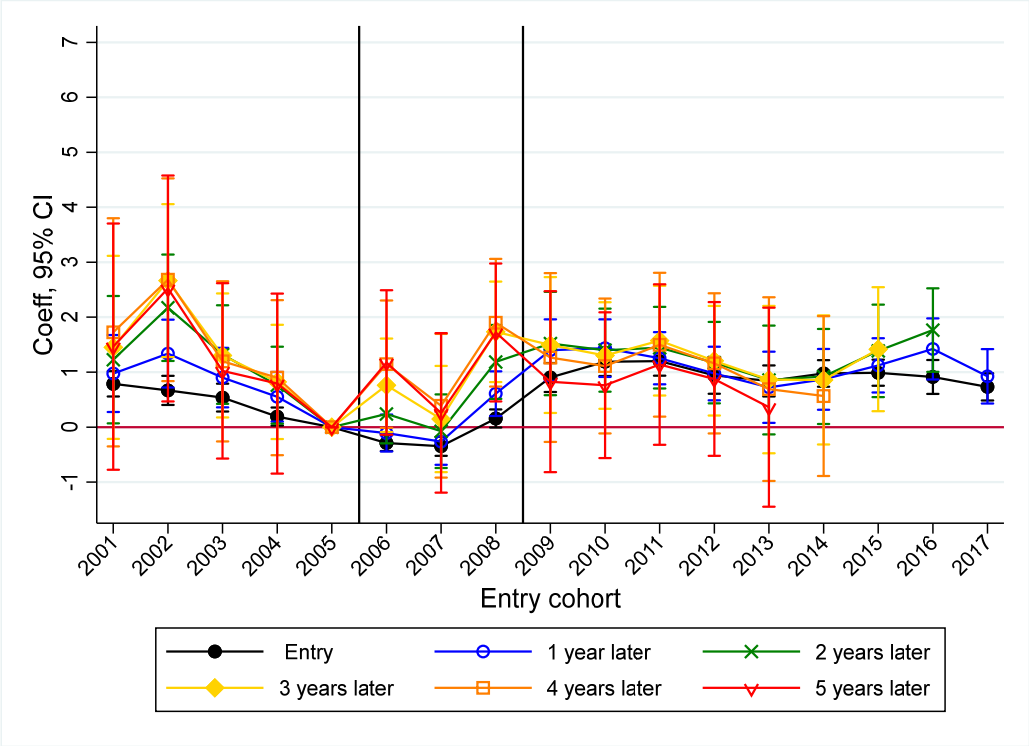


L. Work study aid



Notes: Texas sample, see Table C.5 notes for sample definition. Coefficients and 95% confidence intervals from regressions of specified characteristic on the interaction between being constrained at entry and entry cohort (with 2005 serving as omitted category). All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, and entry school fixed effects. Confidence intervals based on robust standard errors, clustered by entry institution.

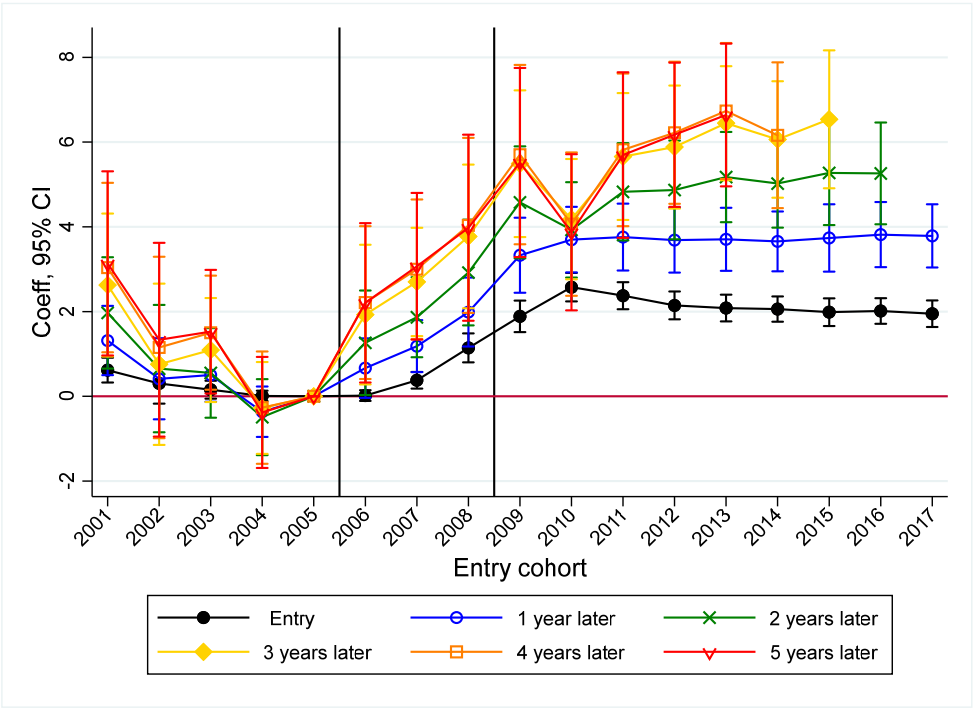
Figure C.2: The effect of being constrained at entry on cumulative student loans by entry cohort, Texas independent students



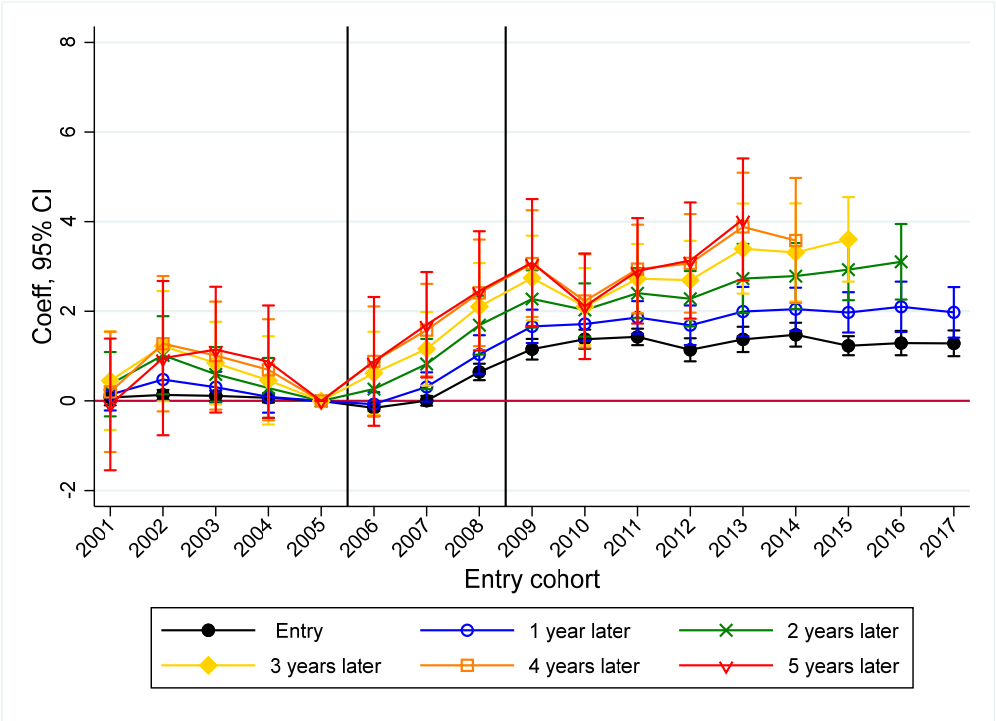
Notes: Texas sample, see Table C.5 notes for sample definition. Coefficients and 95% confidence intervals from regressions of cumulative borrowing on the interaction between being constrained at entry and entry cohort (with 2005 serving as omitted category). All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Confidence intervals based on robust standard errors, clustered by entry institution.

Figure C.3: The effect of being constrained at entry on cumulative student loans by entry cohort by type of college at entry, Texas sample

A. Four-year entrants

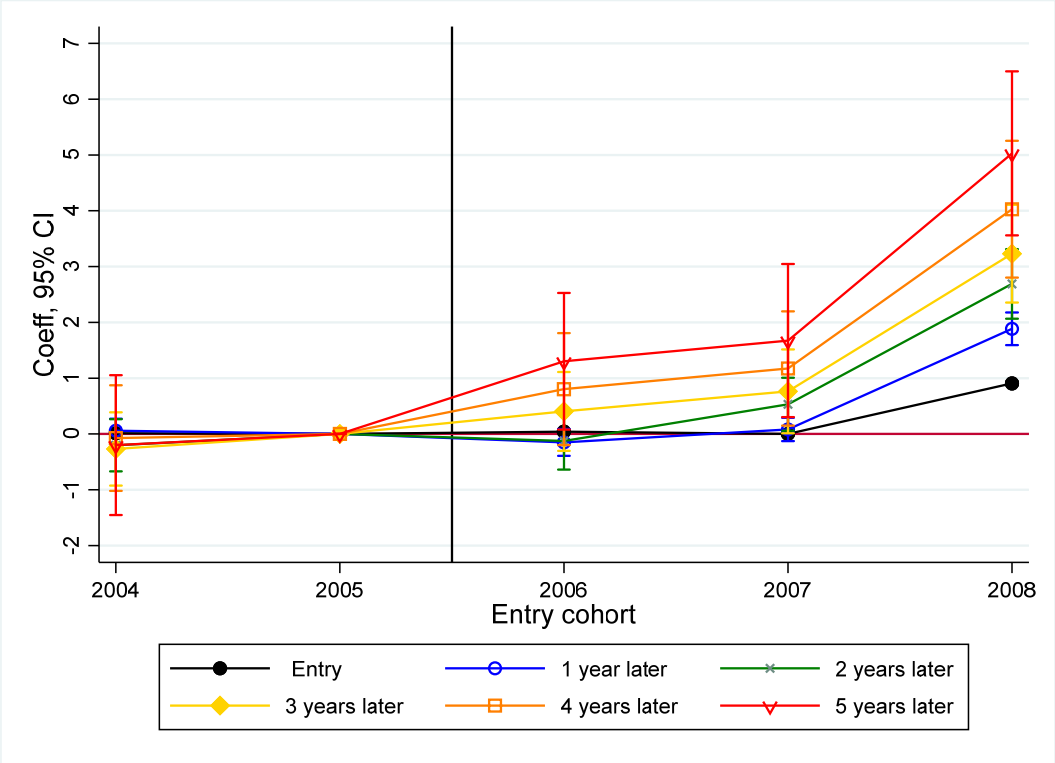


B. Community college entrants



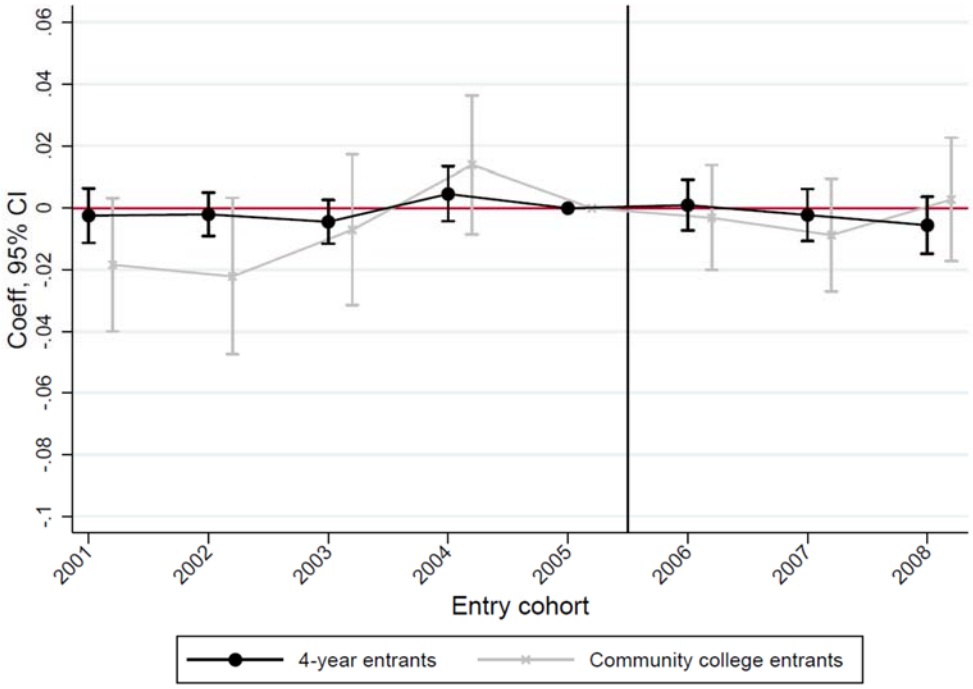
Notes: Texas sample, see Table C.5 notes for sample definition. See Figure C.2 notes for specification.

Figure C.4: The effect of being constrained at entry on cumulative student loans by entry cohort, CCP/Equifax sample



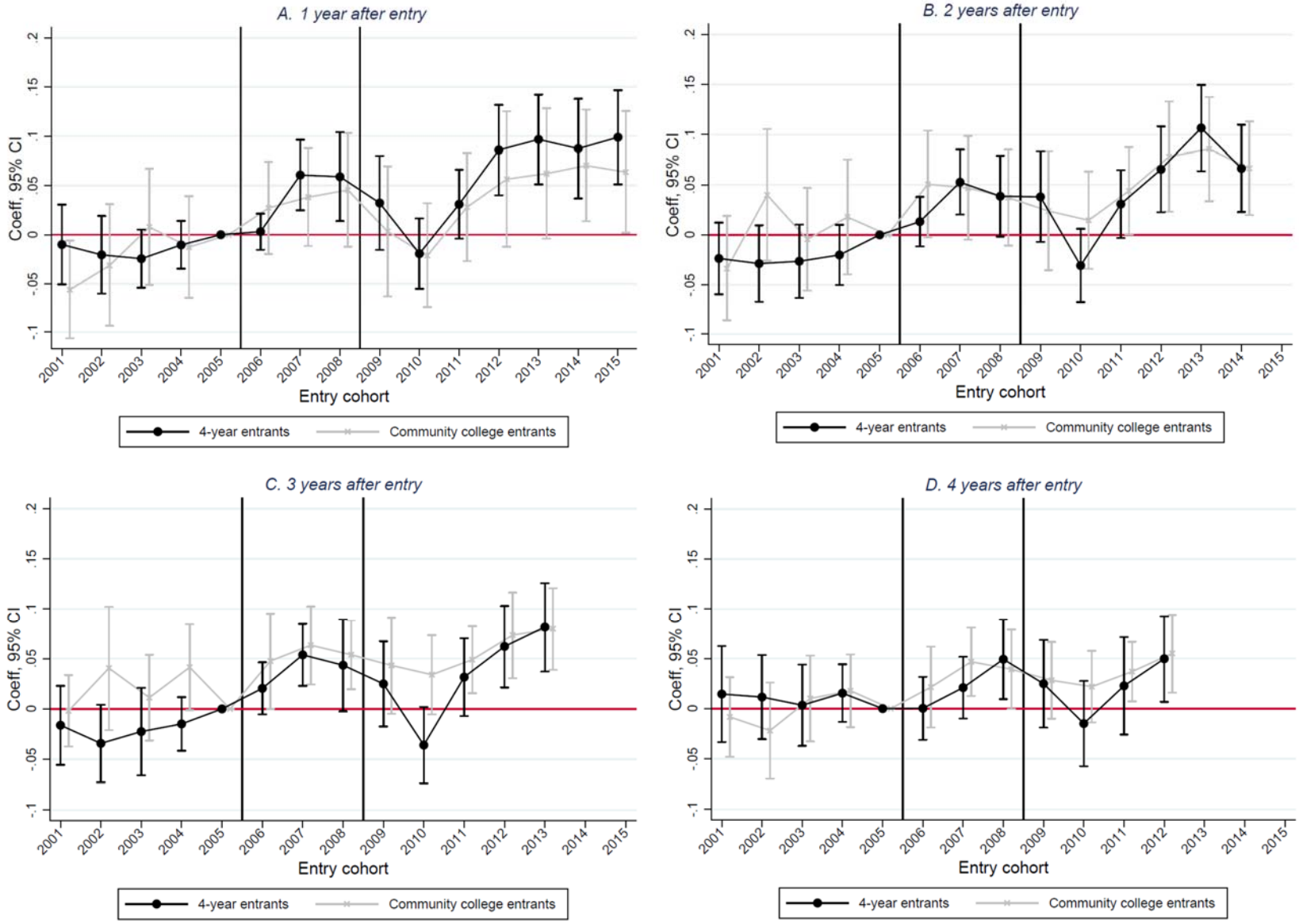
Notes: CCP/Equifax sample, Table C.9 notes for sample definition. Coefficients and 95% confidence intervals from regressions of the indicated outcome on the interaction between being constrained at entry and entry cohort (with 2005 serving as omitted category). All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, includes state and age at entry fixed effects, quarters from entry before a credit report was created fixed effects, indicators for having a credit card, auto loan, mortgage, number of credit accounts, and credit score, measured before entry. Confidence intervals based on robust standard errors, clustered by entry state. Loan amounts are winsorized at the 99th percentile.

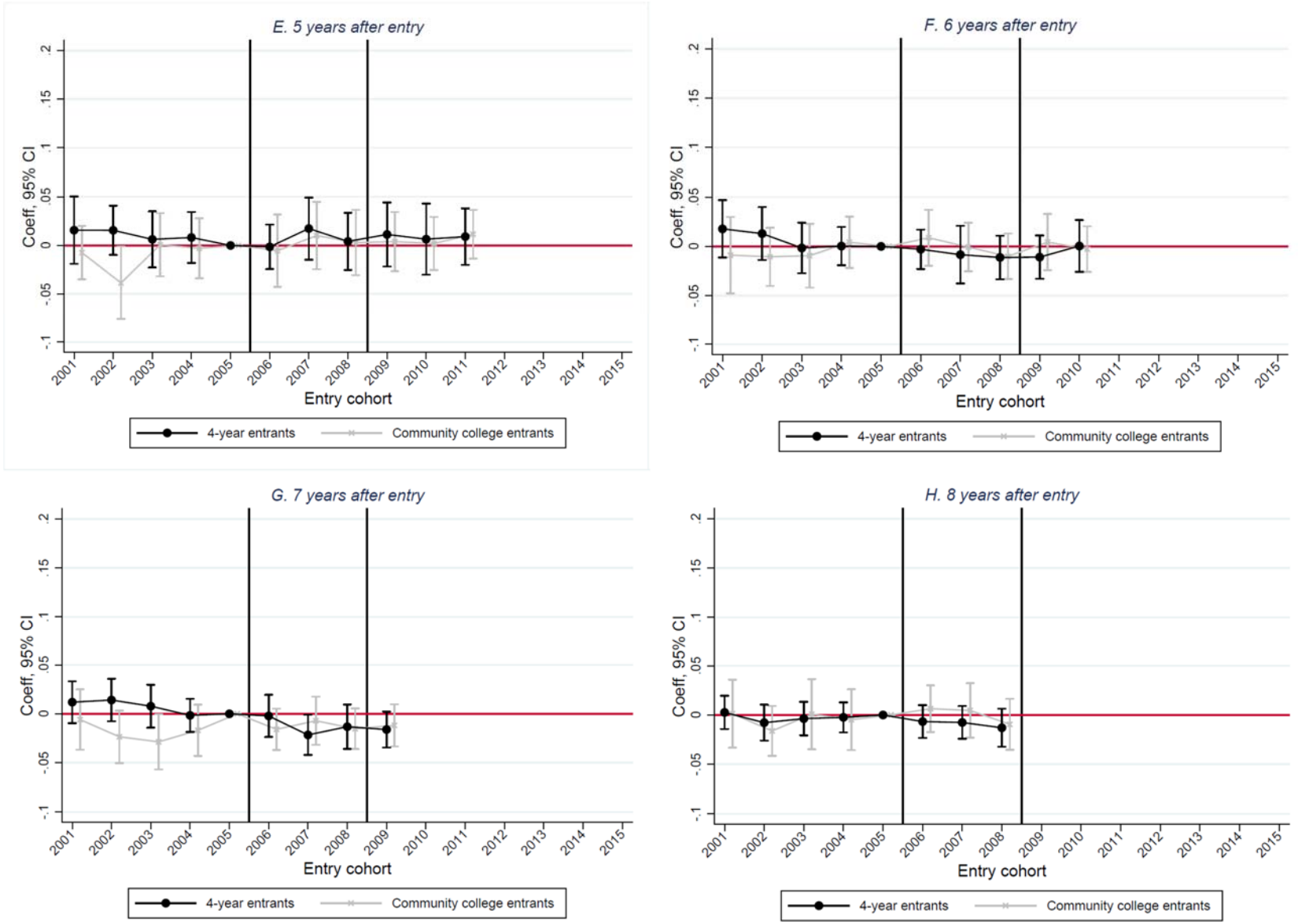
Figure C.5: Effects of loan limit increases on certificate receipt within 8 years, Texas sample



Notes: Texas sample, see Table C.5 notes for sample definition. See Figure C.2 notes for specification.

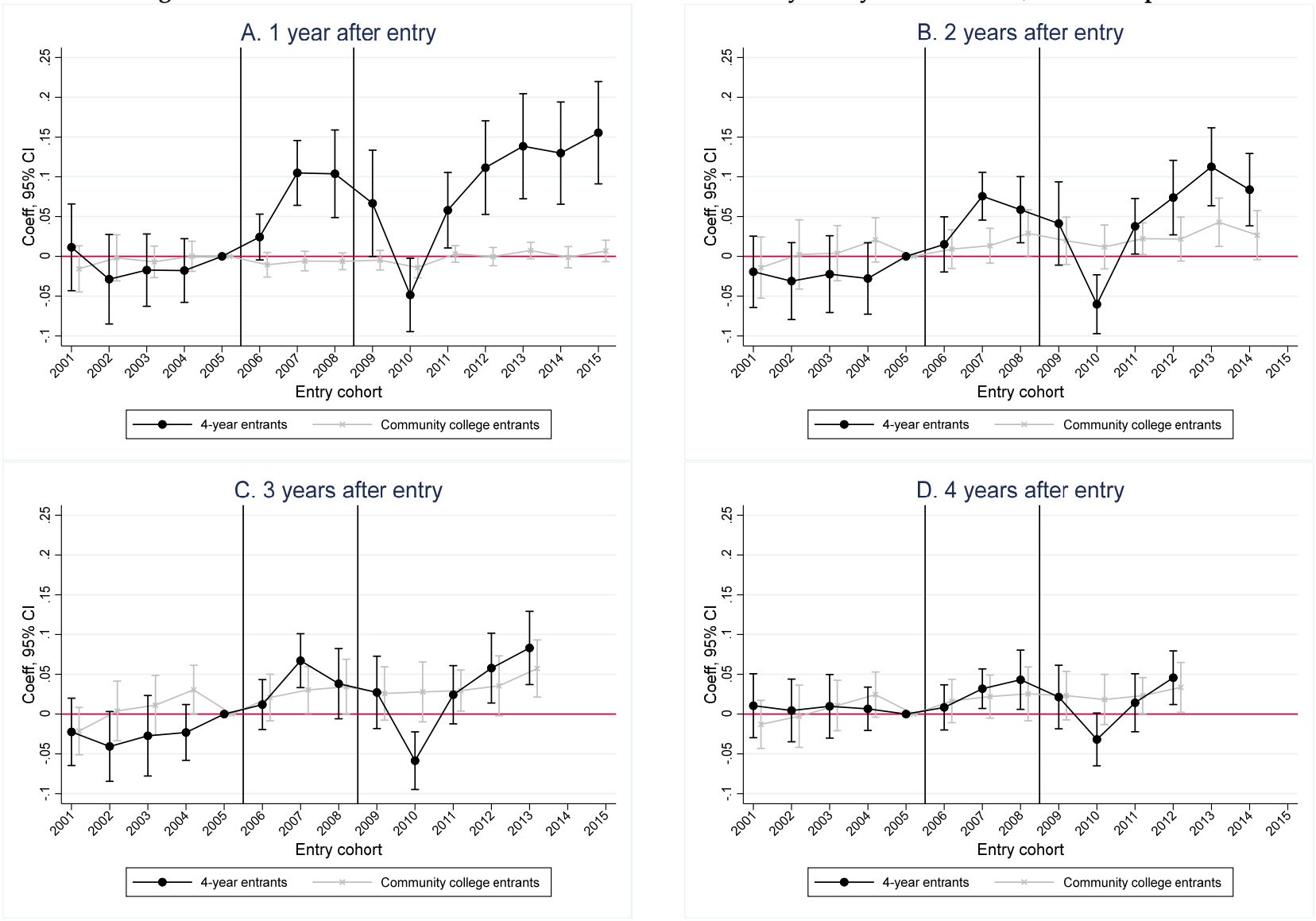
Figure C.6: Effects of loan limit increases on enrollment in any public institution, Texas sample

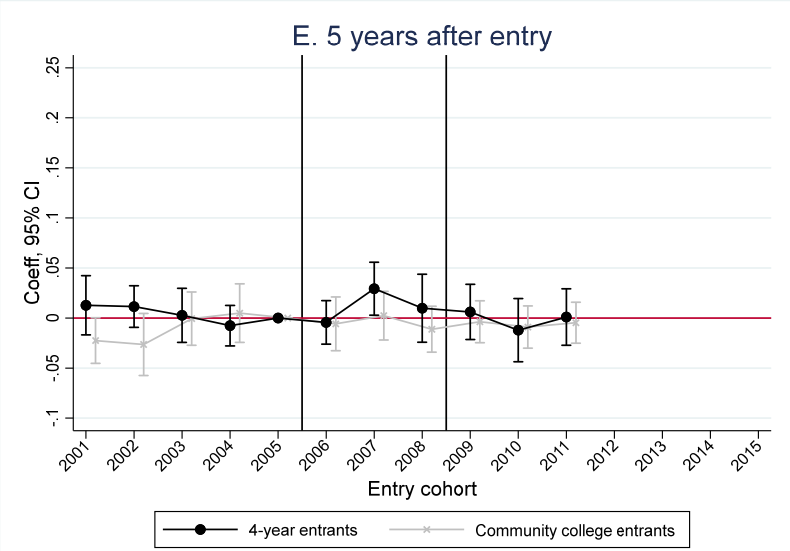


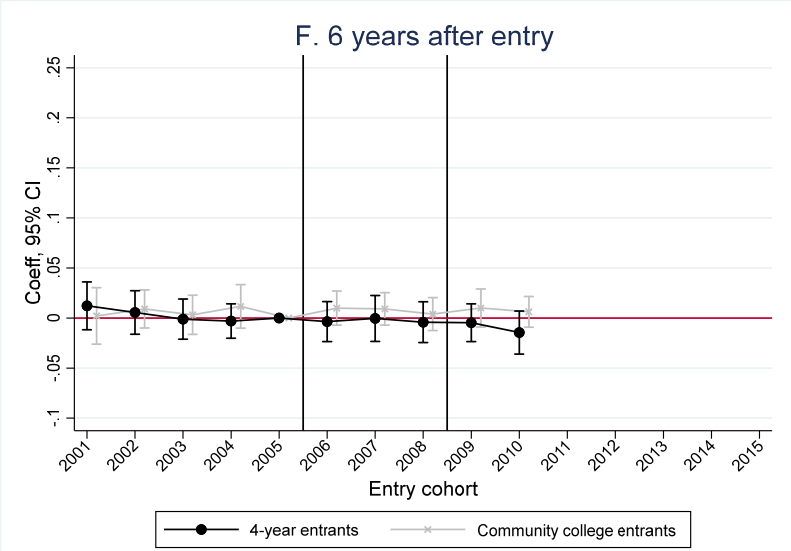


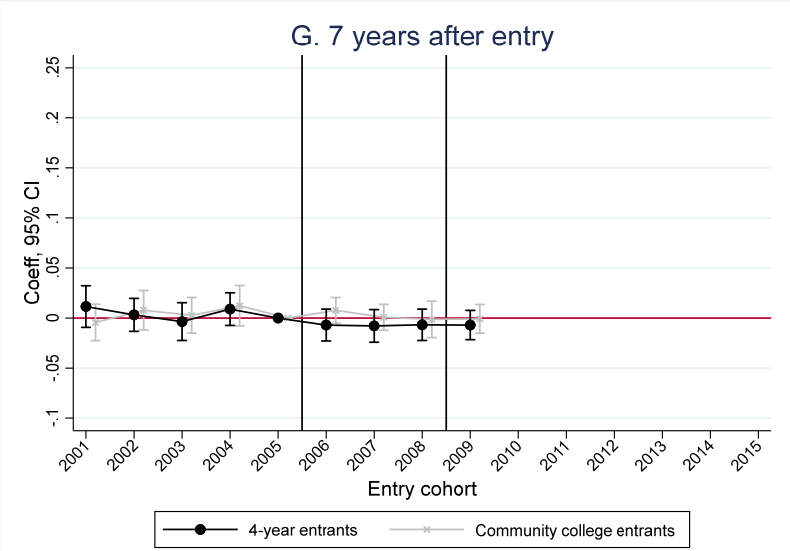
Notes: Texas sample, see Table C.5 notes for sample definition. See Figure C.2 notes for specification.

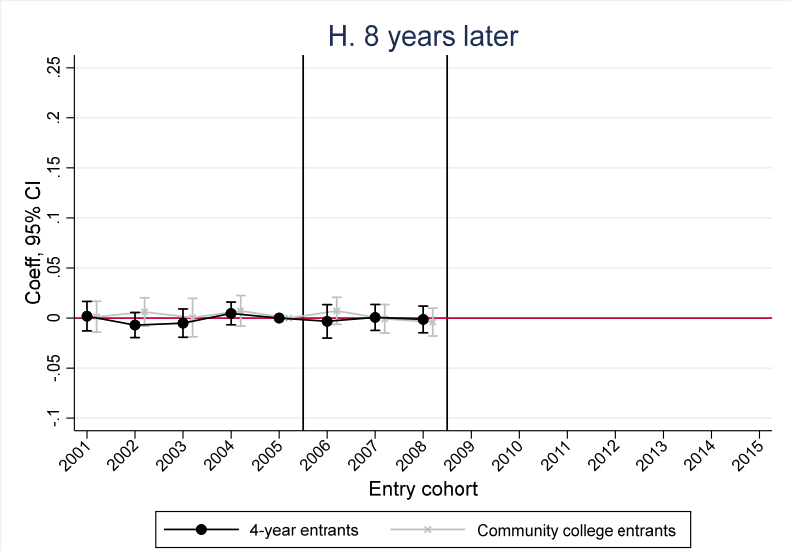
Figure C.7: Effects of loan limit increases on enrollment in any four-year institution, Texas sample





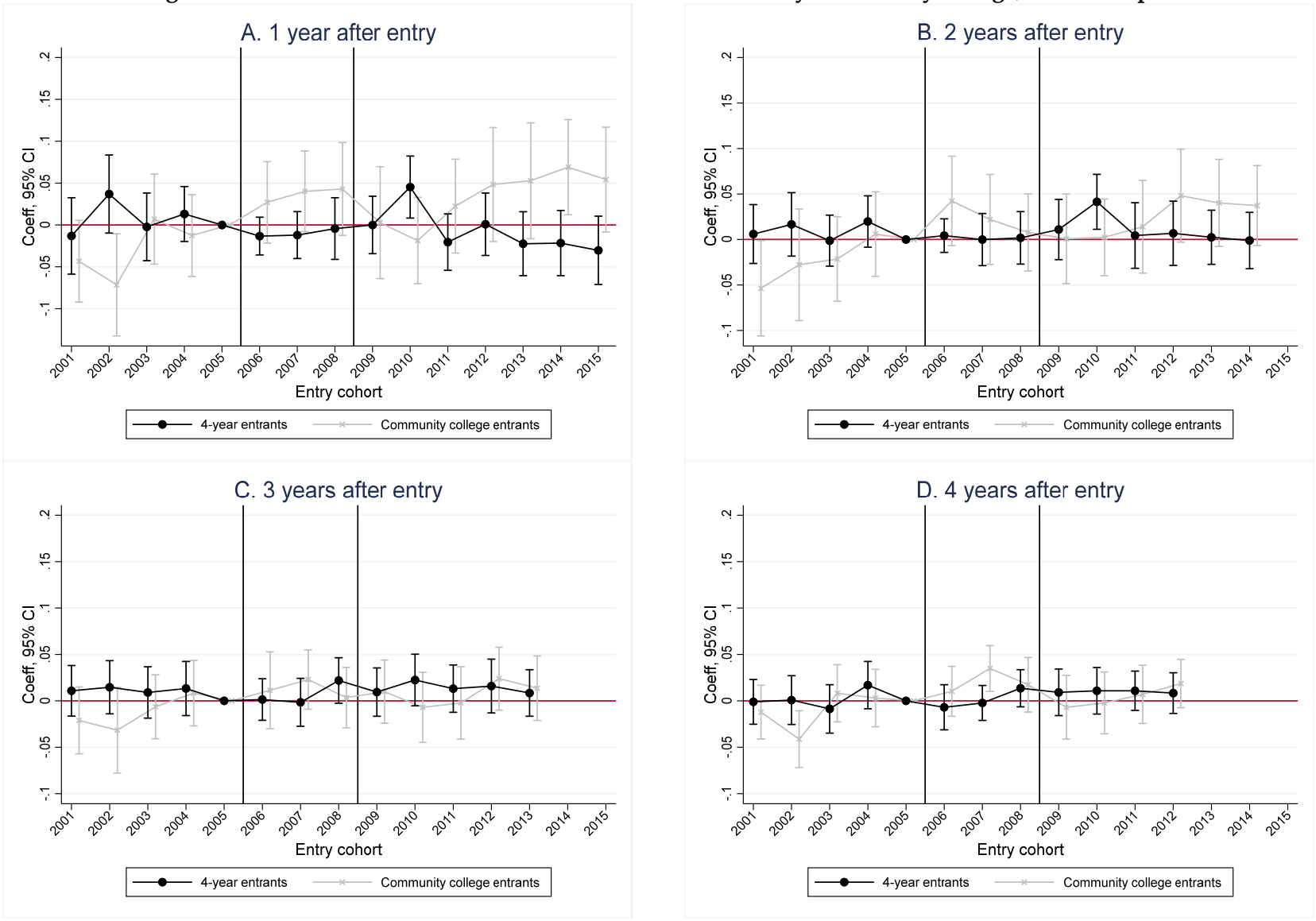


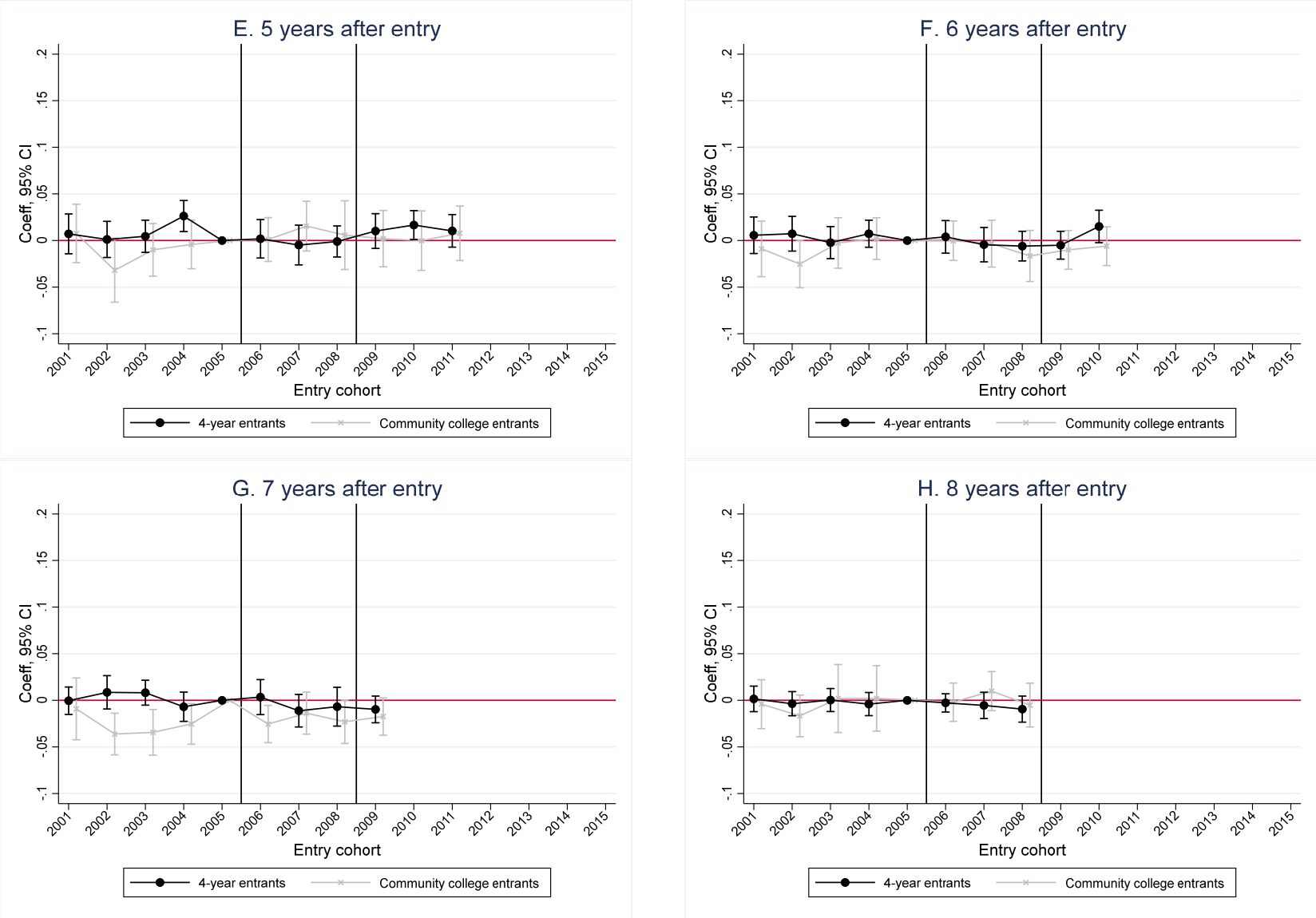




Notes: Texas sample, see Table C.5 notes for sample definition. See Figure C.2 notes for specification.

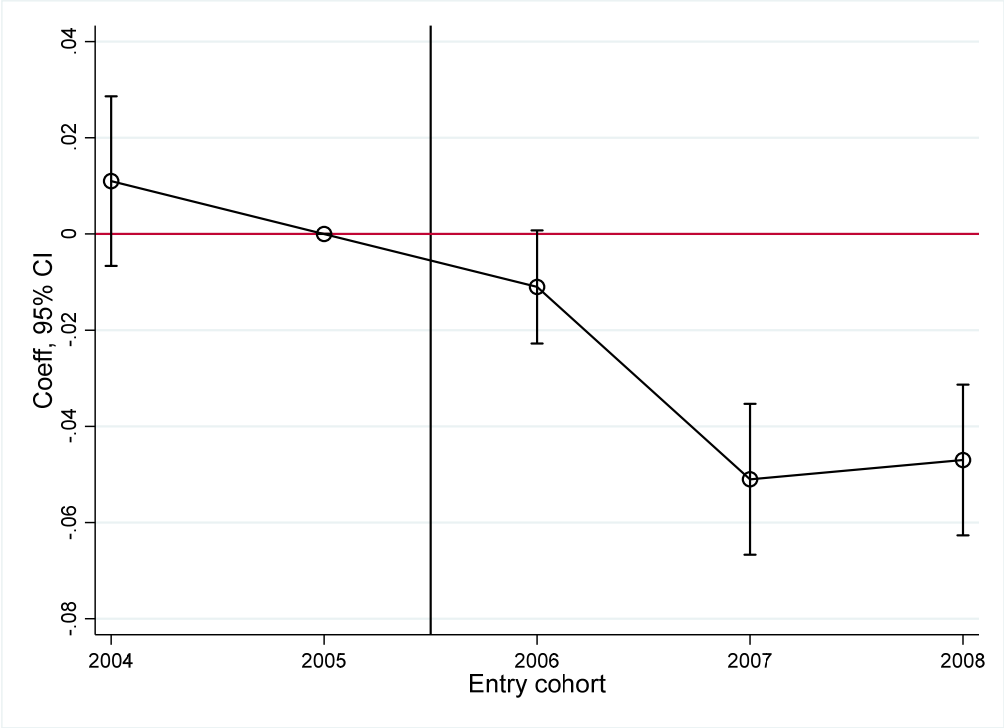
Figure C.8: Effects of loan limit increases on enrollment in any community college, Texas sample





Notes: Texas sample, see Table C.5 notes for sample definition. See Figure C.2 notes for specification.

Figure C.9: The effect of being constrained at entry on credit card use 1 year after entry



Notes: Texas sample, see Table C.9 notes for sample definition. See Figure C.4 notes for specification.

Appendix D: Estimates from Specifications that Include Great Recession Cohorts

Table D.1: Treatment and baseline characteristics, pooled Texas sample

	(1) Pred. grad rate	(2) Male	(3) White	(4) URM	(5) Age	(6) EFC
A. All cohorts (N = 377,488)						
Constrained × cohort ∈ {2006,2007,2008}	0.002	0.011	-0.014	0.007	0.087	1015
	(0.003)	(0.007)	(0.014)	(0.011)	(0.056)	(884)
Constrained × cohort > 2008	-0.003	-0.006	-0.040	0.019	0.064	-568
	(0.004)	(0.007)	(0.020)*	(0.013)	(0.053)	(920)
B. All cohorts except 2009-2011 (N = 297,778)						
Constrained × cohort ∈ {2006,2007,2008}	0.002	0.011	-0.013	0.007	0.088	969
	(0.003)	(0.007)	(0.015)	(0.011)	(0.058)	(860)
Constrained × cohort > 2008	-0.004	-0.009	-0.050	0.021	0.048	-944
	(0.004)	(0.007)	(0.023)*	(0.014)	(0.054)	(964)

Notes: The sample is limited to student borrowers who first enrolled in a public higher education institution in Texas as part of the 2001 – 2017 entry cohorts (Panel A) or 2001 – 2008 and 2012 – 2017 entry cohorts (Panel B), were classified as dependent students, and borrowed at or below the federal Stafford Loan maximum for first-year students Each column within a panel includes estimates from separate regressions; dependent variable indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, and entry school fixed effects. Predicted graduation rate is a linear prediction of the probability of receiving any degree within 8 years of college entry on the other characteristics displayed in this table and school of entry fixed effects. URM = underrepresented minority. EFC = expected family contribution. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$.

Table D.2: Effects of loan limits on constrained students' cumulative borrowing, pooled Texas sample

X =	0	1	2	3	4	5	6
A. All cohorts							
Constrained × cohort ∈ {2006,2007,2008}	238	692	1138	1445	1489	1498	1437
	(54)**	(173)**	(316)**	(426)**	(490)**	(521)**	(531)**
Constrained × cohort > 2008	1635	2676	3254	3702	3757	3686	3632
	(96)**	(192)**	(299)**	(391)**	(429)**	(445)**	(450)**
Observations	377,488	377,488	377,488	346,784	316,508	286,879	256,761
B. All cohorts except 2009-2011							
Constrained × cohort ∈ {2006,2007,2008}	225	704	1176	1497	1543	1549	1469
	(50)**	(179)**	(331)**	(445)**	(508)**	(535)**	(542)**
Constrained × cohort > 2008	1567	2710	3304	3858	4032	4070	4156
	(87)**	(189)**	(299)**	(391)**	(422)**	(427)**	(427)**
Observations	297,778	297,778	297,778	267,074	236,798	207,169	177,051

Notes: See Table D.1 notes for sample description. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative total student loans X years after entry, where the value of X is indicated in column heading. Outcomes after the 2018 academic year are not observed. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table D.3: Effects of loan limit increases on enrollment, pooled Texas sample

X =	1	2	3	4	5	6	7
A. All cohorts							
Constrained × cohort ∈ {2006,2007,2008}	0.064	0.055	0.050	0.018	0.002	-0.007	-0.009
	(0.007)**	(0.007)**	(0.007)**	(0.008)*	(0.007)	(0.006)	(0.004)
Constrained × cohort > 2008	0.087	0079	0.059	0.029	0.014	0.002	-0.004
	(0.010)**	(0.009)**	(0.010)**	(0.010)**	(0.007)*	(0.005)	(0.005)
Observations	346,784	316,508	286,879	256,761	226,826	196,964	168,965
B. All cohorts except 2009-2011							
Constrained × cohort ∈ {2006,2007,2008}	0.064	0.055	0.051	0.018	0.001	-0.008	-0.010
	(0.007)**	(0.007)**	(0.007)**	(0.008)*	(0.007)	(0.005)	(0.004)
Constrained × cohort > 2008	0.113	0.103	0.082	0.051	0.028	--	--
	(0.011)**	(0.009)**	(0.010)**	(0.010)**	(0.008)**	--	--
Observations	267,074	236,798	207,169	177,051	147,116	117,254	117,254

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is enrollment in any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table D.3: Effects of loan limit increases on cumulative credits attempted, pooled Texas sample

X =	1	2	3	4	5	6	7
A. All cohorts							
Constrained × cohort ∈ {2006,2007,2008}	3.68	5.05	5.96	6.17	6.16	5.99	5.83
	(0.59)**	(0.81)**	(0.99)**	(1.03)**	(1.02)**	(0.99)**	(0.96)**
Constrained × cohort > 2008	4.93	6.37	6.92	6.63	5.50	3.97	2.65
	(0.73)**	(0.98)**	(1.28)**	(1.42)**	(1.46)**	(1.41)**	(1.51)+
Observations	346,784	316,508	286,879	256,761	226,826	196,964	168,965
B. All cohorts except 2009-2011							
Constrained × cohort ∈ {2006,2007,2008}	3.67	5.05	5.95	6.14	6.09	5.73	5.61
	(0.59)**	(0.79)**	(0.96)**	(0.99)**	(0.95)**	(0.88)**	(0.87)**
Constrained × cohort > 2008	6.15	8.36	9.77	10.43	9.72	--	--
	(0.77)**	(1.03)**	(1.35)**	(1.53)**	(1.60)**	--	--
Observations	267,074	236,798	207,169	177,051	147,116	117,254	117,254

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative credits attempted at any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table D.4: Effects of loan limit increases on degree receipt, pooled Texas sample

X =	1	2	3	4	5	6	7
A. All cohorts							
Constrained × cohort ∈ {2006,2007,2008}	0.006	0.012	0.040	0.042	0.046	0.048	0.046
	(0.003)*	(0.003)**	(0.008)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
Constrained × cohort > 2008	0.001	0.009	0.038	0.038	0.030	0.022	0.013
	(0.004)	(0.005)+	(0.008)**	(0.011)**	(0.011)**	(0.012)+	(0.012)
Observations	346,784	316,508	286,879	256,761	226,826	196,964	168,965
B. All cohorts except 2009-2011							
Constrained × cohort ∈ {2006,2007,2008}	0.006	0.012	0.040	0.042	0.046	0.046	0.044
	(0.003)*	(0.003)**	(0.008)**	(0.009)**	(0.008)**	(0.008)**	(0.008)**
Constrained × cohort > 2008	0.001	0.010	0.047	0.058	0.053	--	--
	(0.004)	(0.005)*	(0.009)**	(0.012)**	(0.013)**	--	--
Observations	267,074	236,798	207,169	177,051	147,116	117,254	117,254

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is receipt of any degree or certificate from a public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table D.5: Effects of loan limit increases on bachelor's degree receipt, pooled Texas sample

X =	3	4	5	6	7
A. All cohorts					
Constrained × cohort ∈ {2006,2007,2008}	0.030	0.031	0.035	0.038	0.037
	(0.007)**	(0.009)**	(0.009)**	(0.010)**	(0.009)**
Constrained × cohort > 2008	0.029	0.030	0.022	0.017	0.012
	(0.007)**	(0.009)**	(0.010)*	(0.011)+	(0.011)
Observations	286,879	256,761	226,826	196,964	168,965
B. All cohorts except 2009-2011					
Constrained × cohort ∈ {2006,2007,2008}	0.030	0.032	0.035	0.036	0.035
	(0.007)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**
Constrained × cohort > 2008	0.036	0.047	0.038	--	--
	(0.008)**	(0.011)**	(0.012)**	--	--
Observations	207,169	177,051	147,116	117,254	117,254

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is receipt of a bachelor's degree from a public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table D.6: Effects of loan limit increases on associate degree receipt, pooled Texas sample

X =	2	3	4	5	6	7
A. All cohorts						
Constrained × cohort ∈ {2006,2007,2008}	0.007	0.009	0.010	0.009	0.011	0.010
	(0.002)**	(0.003)**	(0.003)**	(0.004)*	(0.004)**	(0.004)*
Constrained × cohort > 2008	0.003	0.006	0.007	0.006	0.005	0.001
	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)
Observations	316,508	286,879	256,761	226,826	196,964	168,965
B. All cohorts except 2009-2011						
Constrained × cohort ∈ {2006,2007,2008}	0.007	0.009	0.009	0.008	0.009	0.009
	(0.002)**	(0.003)**	(0.003)**	(0.004)*	(0.004)*	(0.004)*
Constrained × cohort > 2008	0.004	0.009	0.011	0.014	--	--
	(0.004)	(0.005)*	(0.006)*	(0.007)*	--	--
Observations	236,798	207,169	177,051	147,116	117,254	117,254

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is receipt of an associate degree from a public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table D.7: Effects of loan limit increases on ln(earnings), pooled Texas sample

X =	1	2	3	4	5	6	7
A. All cohorts							
Constrained × cohort ∈ {2006,2007,2008}	-0.039	-0.021	-0.053	-0.012	0.021	0.028	0.034
	(0.019)*	(0.022)	(0.022)*	(0.018)	(0.020)	(0.017)	(0.015)*
Constrained × cohort > 2008	-0.071	-0.032	-0.034	0.021	0.025	0.023	0.040
	(0.022)**	(0.024)	(0.023)	(0.018)	(0.016)	(0.017)	(0.019)*
Observations	275,512	250,989	228,309	205,367	180,201	154,743	131,227
B. All cohorts except 2009-2011							
Constrained × cohort ∈ {2006,2007,2008}	-0.044	-0.026	-0.055	-0.015	0.021	0.028	0.033
	(0.020)*	(0.023)	(0.022)*	(0.018)	(0.020)	(0.017)	(0.014)*
Constrained × cohort > 2008	-0.096	-0.052	-0.049	0.025	0.013	--	--
	(0.025)**	(0.027)+	(0.023)*	(0.020)	(0.020)	--	--
Observations	214,290	188,517	165,128	141,476	116,448	91,604	90,706

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is the natural log of earnings received from UI covered jobs in Texas, X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Appendix E: Estimates from Additional Specifications

Table E.1: First stage estimates for Texas sample, flexible specification

X =	0	1	2	3	4	5	6
A. Entered 4-year institution (N = 74,132)							
Constrained x 2006 cohort	-213	300	705	1078	1143	1175	1215
	(77)**	(381)	(680)	(898)	(964)	(993)	(1015)
	{0.255}	{0.465}	{0.344}	{0.290}	{0.297}	{0.304}	{0.313}
Constrained x 2007 cohort	28	614	1123	1659	1761	1881	1861
	(58)	(229)**	(373)**	(535)**	(674)**	(728)*	(754)*
	{0.744}	{0.343}	{0.317}	{0.296}	{0.356}	{0.33}	{0.307}
Constrained x 2008 cohort	755	1361	2100	2635	2646	2613	2639
	(100)**	(235)**	(432)**	(623)**	(722)**	(764)**	(783)**
	{0.194}	{0.304}	{0.266}	{0.281}	{0.301}	{0.287}	{0.294}
Test of equality (*p*-value)	<0.001	0.004	0.014	0.144	0.274	0.366	0.369
B. Entered community college (N = 43,122)							
Constrained x 2006 cohort	-173	-203	-69	177	391	465	487
	(33)**	(103)+	(195)	(276)	(374)	(471)	(527)
	{0.125}	{0.250}	{0.695}	{0.539}	{0.433}	{0.405}	{0.424}
Constrained x 2007 cohort	-130	51	331	543	871	988	984
	(28)**	(127)	(205)	(301)+	(375)*	(421)*	(434)*
	{0.071}	{0.513}	{0.289}	{0.275}	{0.262}	{0.233}	{0.231}
Constrained x 2008 cohort	499	806	1259	1561	1780	1783	1648
	(46)**	(134)**	(226)**	(369)**	(466)**	(493)**	(503)**
	{0.015}	{0.078}	{0.113}	{0.102}	{0.119}	{0.136}	{0.204}
Test of equality (*p*-value)	<0.001	<0.001	<0.001	0.023	0.103	0.166	0.279

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative student loans X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.2: First stage estimates for CCP/Equifax sample, flexible specification

X =	0	1	2	3	4	5	6
Constrained x 2004 cohort	12	69	-149	-60	417	259	479
	(12)	(133)	(284)	(417)	(585)	(720)	(960)
	{0.068}	{0.065}	{0.091}	{0.176}	{0.056}	{0.070}	{0.078}
Constrained x 2006 cohort	42	-139	-38	655	1074	1423	1516
	(15)**	(150)	(316)	(485)	(611)+	(721)+	(795)+
	{0.053}	{0.073}	{0.041}	{0.101}	{0.093}	{0.099}	{0.093}
Constrained x 2007 cohort	1	36	406	506	946	1242	1333
	(16)	(136)	(300)	(473)	(632)	(786)	(943)
	{0.166}	{0.177}	{0.101}	{0.122}	{0.106}	{0.106}	{0.084}
Constrained x 2008 cohort	906	1794	2430	2934	3743	4823	5069
	(20)**	(182)**	(390)**	(548)**	(727)**	(838)**	(957)**
	{0.047}	{0.093}	{0.073}	{0.077}	{0.056}	{0.044}	{0.060}
Test of eq. (*p*-val): 2006=2007=2008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Notes: See Table B.X for description of sample (N = 145,616). Each column within a panel contains estimates from separate regressions; dependent variable is cumulative student loans X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry state fixed effects, and controls for XX. Robust standard errors, clustered by entry state, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of the table.

Table E.3: Effects of loan limit increases on enrollment X years later, flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)								
Constrained x 2006 cohort	0.014	0.030	0.036	-0.006	-0.008	-0.006	-0.008	-0.005
	(0.012)	(0.013)*	(0.014)*	(0.012)	(0.007)	(0.007)	(0.008)	(0.006)
	{0.204}	{0.173}	{0.122}	{0.222}	{0.240}	{0.425}	{0.220}	{0.230}
Constrained x 2007 cohort	0.064	0.064	0.065	0.013	0.009	-0.013	-0.028	-0.005
	(0.013)**	(0.012)**	(0.013)**	(0.018)	(0.016)	(0.013)	(0.010)**	(0.007)
	{0.157}	{0.182}	{0.208}	{0.180}	{0.178}	{0.306}	{0.272}	{0.234}
Constrained x 2008 cohort	0.061	0.050	0.053	0.038	-0.006	-0.017	-0.020	-0.011
	(0.015)**	(0.015)**	(0.019)**	(0.015)*	(0.013)	(0.01)+	(0.011)+	(0.008)
	{0.204}	{0.232}	{0.241}	{0.131}	{0.111}	{0.334}	{0.282}	{0.212}
Test of equality (*p*-value)	0.013	0.086	0.236	0.045	0.502	0.486	0.268	0.830
B. Entered community college (N = 43,122)								
Constrained x 2006 cohort	0.046	0.052	0.035	0.0224	0.003	0.013	-0.004	0.010
	(0.016)**	(0.020)*	(0.019)+	(0.015)	(0.016)	(0.014)	(0.010)	(0.011)
	{0.246}	{0.219}	{0.257}	{0.285}	{0.73}	{0.122}	{0.561}	{0.159}
Constrained x 2007 cohort	0.048	0.038	0.042	0.043	0.015	0.002	0.005	0.008
	(0.017)**	(0.015)*	(0.014)**	(0.016)*	(0.015)	(0.010)	(0.010)	(0.011)
	{0.210}	{0.206}	{0.179}	{0.232}	{0.474}	{0.718}	{0.538}	{0.267}
Constrained x 2008 cohort	0.057	0.029	0.034	0.034	0.006	-0.010	-0.004	-0.006
	(0.020)**	(0.018)	(0.014)*	(0.019)+	(0.016)	(0.011)	(0.009)	(0.009)
	{0.177}	{0.290}	{0.242}	{0.178}	{0.543}	{0.182}	{0.640}	{0.199}
Test of equality (*p*-value)	0.883	0.690	0.856	0.657	0.843	0.324	0.696	0.260

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is enrollment in any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.4: Effects of loan limit increases on cumulative years of enrollment, flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)								
Constrained x 2006 cohort	0.01	0.04	0.08	0.07	0.07	0.06	0.05	0.05
	(0.01)	(0.02)+	(0.04)*	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
	{0.219}	{0.166}	{0.144}	{0.137}	{0.094}	{0.089}	{0.135}	{0.191}
Constrained x 2007 cohort	0.06	0.13	0.19	0.21	0.21	0.20	0.17	0.17
	(0.01)**	(0.02)**	(0.03)**	(0.05)**	(0.06)**	(0.07)**	(0.07)*	(0.07)*
	{0.126}	{0.175}	{0.200}	{0.184}	{0.126}	{0.142}	{0.127}	{0.123}
Constrained x 2008 cohort	0.07	0.11	0.16	0.20	0.20	0.18	0.16	0.15
	(0.02)**	(0.03)**	(0.05)**	(0.06)**	(0.07)**	(0.07)**	(0.07)*	(0.06)*
	{0.227}	{0.237}	{0.241}	{0.198}	{0.183}	{0.175}	{0.172}	{0.177}
Test of equality (*p*-value)	0.013	0.026	0.046	0.078	0.083	0.151	0.263	0.287
B. Entered community college (N = 43,122)								
Constrained x 2006 cohort	0.05	0.10	0.13	0.16	0.16	0.17	0.17	0.18
	(0.02)**	(0.03)**	(0.05)**	(0.06)*	(0.07)*	(0.08)*	(0.09)+	(0.10)+
	{0.257}	{0.227}	{0.239}	{0.207}	{0.187}	{0.189}	{0.157}	{0.154}
Constrained x 2007 cohort	0.05	0.09	0.13	0.17	0.19	0.19	0.19	0.20
	(0.02)**	(0.03)**	(0.04)**	(0.05)**	(0.06)**	(0.06)**	(0.07)**	(0.07)**
	{0.224}	{0.207}	{0.166}	{0.142}	{0.168}	{0.171}	{0.162}	{0.158}
Constrained x 2008 cohort	0.06	0.09	0.12	0.15	0.16	0.15	0.15	0.14
	(0.02)**	(0.03)*	(0.05)**	(0.06)*	(0.07)*	(0.08)+	(0.08)+	(0.09)
	{0.168}	{0.179}	{0.190}	{0.168}	{0.171}	{0.204}	{0.210}	{0.221}
Test of equality (*p*-value)	0.883	0.959	0.975	0.956	0.928	0.898	0.867	0.797

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative years of enrollment in any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.5: Effects of loan limit increases on cumulative credits attempted, flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)								
Constrained x 2006 cohort	0.87	1.58	2.26	2.36	2.10	2.04	1.97	2.06
	(0.81)	(1.24)	(1.68)	(1.89)	(1.95)	(1.96)	(1.91)	(1.87)
	{0.118}	{0.157}	{0.125}	{0.101}	{0.087}	{0.086}	{0.103}	{0.093}
Constrained x 2007 cohort	4.00	6.16	7.73	7.92	8.20	8.05	7.60	7.61
	(0.78)**	(1.07)**	(1.37)**	(1.55)**	(1.66)**	(1.74)**	(1.73)**	(1.68)**
	{0.086}	{0.108}	{0.125}	{0.096}	{0.099}	{0.083}	{0.080}	{0.104}
Constrained x 2008 cohort	3.91	5.53	6.70	7.43	7.43	7.19	6.95	6.95
	(0.94)**	(1.41)**	(1.92)**	(2.09)**	(2.13)**	(2.08)**	(2.02)**	(1.96)**
	{0.118}	{0.122}	{0.171}	{0.131}	{0.117}	{0.130}	{0.130}	{0.128}
Test of equality (*p*-value)	0.001	0.001	0.005	0.021	0.018	0.027	0.042	0.044
B. Entered community college (N = 43,122)								
Constrained x 2006 cohort	1.14	2.21	3.10	3.81	4.06	4.33	4.41	4.51
	(0.64)+	(0.90)*	(1.20)*	(1.52)*	(1.76)*	(1.91)*	(1.95)*	(2.02)*
	{0.478}	{0.390}	{0.349}	{0.362}	{0.342}	{0.333}	{0.338}	{0.357}
Constrained x 2007 cohort	2.86	3.98	4.89	5.69	6.14	6.43	6.59	6.83
	(0.81)**	(1.04)**	(1.36)**	(1.66)**	(1.85)**	(1.85)**	(1.88)**	(1.93)**
	{0.334}	{0.271}	{0.256}	{0.297}	{0.291}	{0.281}	{0.283}	{0.301}
Constrained x 2008 cohort	3.36	4.35	5.38	5.95	5.83	5.60	5.44	5.35
	(0.89)**	(1.17)**	(1.52)**	(1.86)**	(2.03)**	(2.11)**	(2.13)*	(2.19)*
	{0.332}	{0.294}	{0.256}	{0.276}	{0.322}	{0.302}	{0.311}	{0.338}
Test of equality (*p*-value)	0.040	0.241	0.443	0.622	0.716	0.746	0.728	0.686

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is cumulative credits attempted at any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.6: Effects of loan limit increases on degree receipt, flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)								
Constrained x 2006 cohort	-0.0003	0.001	0.026	0.026	0.034	0.039	0.039	0.038
	(0.001)	(0.004)	(0.011)*	(0.015)+	(0.016)*	(0.016)*	(0.016)*	(0.017)*
	{0.661}	{0.420}	{0.235}	{0.297}	{0.158}	{0.137}	{0.096}	{0.104}
Constrained x 2007 cohort	0.001	-0.003	0.045	0.043	0.061	0.067	0.060	0.056
	(0.001)	(0.003)	(0.013)**	(0.015)**	(0.015)**	(0.017)**	(0.016)**	(0.015)**
	{0.233}	{0.272}	{0.331}	{0.336}	{0.225}	{0.212}	{0.198}	{0.205}
Constrained x 2008 cohort	-0.002	0.004	0.031	0.051	0.055	0.052	0.053	0.047
	(0.002)	(0.004)	(0.010)**	(0.015)**	(0.017)**	(0.018)**	(0.017)**	(0.016)**
	{0.202}	{0.490}	{0.382}	{0.356}	{0.251}	{0.235}	{0.276}	{0.267}
Test of equality (*p*-value)	0.535	0.414	0.257	0.387	0.332	0.307	0.488	0.537
B. Entered community college (N = 43,122)								
Constrained x 2006 cohort	-0.0002	0.001	-0.0002	0.011	0.013	0.027	0.024	0.023
	(0.007)	(0.009)	(0.010)	(0.012)	(0.013)	(0.014)+	(0.014)+	(0.014)
	{0.991}	{0.962}	{0.978}	{0.403}	{0.457}	{0.352}	{0.398}	{0.344}
Constrained x 2007 cohort	-0.006	-0.007	-0.007	-0.002	-0.006	-0.002	-0.006	0.003
	(0.01)	(0.013)	(0.013)	(0.013)	(0.014)	(0.014)	(0.015)	(0.014)
	{0.595}	{0.614}	{0.510}	{0.787}	{0.650}	{0.855}	{0.626}	{0.773}
Constrained x 2008 cohort	0.008	0.022	0.022	0.031	0.028	0.029	0.025	0.024
	(0.009)	(0.011)*	(0.013)+	(0.014)*	(0.016)+	(0.018)	(0.018)	(0.018)
	{0.558}	{0.461}	{0.307}	{0.174}	{0.254}	{0.292}	{0.338}	{0.321}
Test of equality (*p*-value)	0.299	0.035	0.038	0.076	0.147	0.174	0.154	0.409

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is the probability of receiving any credential (bachelor's degree, associate degree, or certificate) from any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.7: Effects of loan limit increases on bachelor's degree receipt, flexible specification

X =	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)						
Constrained x 2006 cohort	0.027	0.031	0.040	0.042	0.039	0.036
	(0.010)**	(0.014)*	(0.016)*	(0.016)*	(0.017)*	(0.017)*
	{0.211}	{0.239}	{0.124}	{0.088}	{0.090}	{0.090}
Constrained x 2007 cohort	0.049	0.046	0.068	0.077	0.073	0.069
	(0.012)**	(0.016)**	(0.017)**	(0.018)**	(0.017)**	(0.017)**
	{0.272}	{0.277}	{0.167}	{0.186}	{0.136}	{0.12}
Constrained x 2008 cohort	0.033	0.053	0.058	0.060	0.061	0.057
	(0.010)**	(0.015)**	(0.017)**	(0.018)**	(0.017)**	(0.016)**
	{0.364}	{0.318}	{0.255}	{0.237}	{0.172}	{0.195}
Test of equality (*p*-value)	0.122	0.457	0.345	0.197	0.223	0.223
B. Entered community college (N = 43,122)						
Constrained x 2006 cohort	0.001	0.002	-0.003	0.009	0.007	0.008
	(0.004)	(0.007)	(0.007)	(0.009)	(0.010)	(0.010)
	{0.818}	{0.860}	{0.717}	{0.419}	{0.486}	{0.470}
Constrained x 2007 cohort	-0.004	-0.004	-0.011	-0.009	-0.010	-0.010
	(0.004)	(0.007)	(0.009)	(0.010)	(0.010)	(0.010)
	{0.468}	{0.778}	{0.395}	{0.400}	{0.419}	{0.409}
Constrained x 2008 cohort	0.002	0.010	0.005	0.005	0.004	0.001
	(0.005)	(0.010)	(0.013)	(0.013)	(0.013)	(0.013)
	{0.670}	{0.487}	{0.641}	{0.621}	{0.720}	{0.893}
Test of equality (*p*-value)	0.126	0.263	0.297	0.262	0.286	0.286

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is the probability of receiving a bachelor's degree at any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.8: Effects of loan limit increases on associate degree receipt, flexible specification

X =	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)							
Constrained x 2006 cohort	-0.001	-0.001	-0.007	-0.011	-0.009	-0.008	-0.007
	(0.002)	(0.003)	(0.005)	(0.005)*	(0.005)+	(0.005)+	(0.004)+
	{0.617}	{0.644}	{0.307}	{0.158}	{0.242}	{0.310}	{0.285}
Constrained x 2007 cohort	-0.004	-0.005	-0.004	-0.008	-0.009	-0.013	-0.015
	(0.002)+	(0.004)	(0.004)	(0.004)+	(0.004)*	(0.005)**	(0.005)**
	{0.164}	{0.269}	{0.356}	{0.232}	{0.266}	{0.269}	{0.299}
Constrained x 2008 cohort	0.001	0.001	-0.001	-0.004	-0.003	-0.002	-0.005
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.005)	(0.006)
	{0.673}	{0.585}	{0.803}	{0.356}	{0.426}	{0.553}	{0.395}
Test of equality (*p*-value)	0.504	0.400	0.515	0.316	0.399	0.219	0.338
B. Entered community college (N = 43,122)							
Constrained x 2006 cohort	0.002	0.005	0.014	0.017	0.020	0.022	0.022
	(0.009)	(0.010)	(0.011)	(0.012)	(0.012)+	(0.012)+	(0.012)+
	{0.832}	{0.655}	{0.469}	{0.423}	{0.473}	{0.464}	{0.493}
Constrained x 2007 cohort	-0.004	0.004	0.007	0.008	0.013	0.013	0.019
	(0.007)	(0.008)	(0.010)	(0.011)	(0.011)	(0.011)	(0.012)
	{0.631}	{0.689}	{0.576}	{0.558}	{0.455}	{0.480}	{0.437}
Constrained x 2008 cohort	0.017	0.020	0.024	0.023	0.026	0.023	0.023
	(0.006)**	(0.008)*	(0.009)*	(0.010)*	(0.011)*	(0.011)*	(0.011)*
	{0.422}	{0.358}	{0.307}	{0.355}	{0.345}	{0.409}	{0.421}
Test of equality (*p*-value)	0.504	0.400	0.515	0.316	0.399	0.219	0.338

Notes: See Table B.X for description of sample. Each column within a panel contains estimates from separate regressions; dependent variable is the probability of receiving an associate degree from any public institution in Texas X years after entry, where the value of X is indicated in column heading. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.9: Effects of loan limit increases on the probability of receiving any earnings, flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution (N = 74,132)								
Constrained x 2006 cohort	-0.011	-0.007	0.010	0.006	0.014	0.009	0.013	0.006
	(0.007)	(0.010)	(0.010)	(0.012)	(0.010)	(0.012)	(0.010)	(0.012)
	{0.345}	{0.312}	{0.222}	{0.338}	{0.223}	{0.299}	{0.288}	{0.267}
Constrained x 2007 cohort	-0.017	-0.015	-0.004	-0.013	-0.012	-0.009	-0.009	-0.013
	(0.010)	(0.011)	(0.010)	(0.011)	(0.010)	(0.011)	(0.009)	(0.010)
	{0.395}	{0.267}	{0.294}	{0.256}	{0.217}	{0.317}	{0.328}	{0.135}
Constrained x 2008 cohort	-0.031	-0.022	-0.009	-0.018	-0.022	-0.009	-0.021	-0.021
	(0.011)**	(0.010)*	(0.010)	(0.007)**	(0.010)*	(0.010)	(0.011)*	(0.010)*
	{0.353}	{0.308}	{0.178}	{0.181}	{0.141}	{0.216}	{0.281}	{0.125}
Test of equality (*p*-value)	0.329	0.605	0.339	0.146	0.018	0.368	0.016	0.074
B. Entered community college (N = 43,122)								
Constrained x 2006 cohort	0.010	0.010	0.015	0.003	0.004	0.008	0.013	0.005
	(0.011)	(0.009)	(0.01)	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)
	{0.199}	{0.316}	{0.314}	{0.748}	{0.462}	{0.512}	{0.335}	{0.521}
Constrained x 2007 cohort	0.018	0.028	0.030	0.020	0.015	0.018	0.022	0.016
	(0.011)+	(0.013)*	(0.012)*	(0.013)	(0.013)	(0.013)	(0.011)+	(0.009)+
	{0.101}	{0.124}	{0.166}	{0.231}	{0.145}	{0.354}	{0.244}	{0.237}
Constrained x 2008 cohort	0.008	0.027	0.017	0.007	-0.002	0.006	0.005	-0.003
	(0.011)	(0.014)+	(0.011)	(0.012)	(0.014)	(0.015)	(0.013)	(0.013)
	{0.230}	{0.130}	{0.264}	{0.476}	{0.494}	{0.642}	{0.619}	{0.636}
Test of equality (*p*-value)	0.669	0.440	0.366	0.333	0.371	0.663	0.539	0.420

Notes: See Table B.X for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is the probability of receiving any earnings X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + p < 0.1, * p < 0.05, **p < 0.01; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.10: Effects of loan limit increases on ln(earnings), flexible specification

X =	1	2	3	4	5	6	7	8
A. Entered 4-year institution								
Constrained x 2006 cohort	-0.072	0.007	-0.025	-0.007	-0.015	0.015	0.045	0.034
	(0.033)*	(0.030)	(0.024)	(0.032)	(0.031)	(0.027)	(0.030)	(0.022)
	{0.117}	{0.764}	{0.403}	{0.433}	{0.250}	{0.301}	{0.358}	{0.377}
Constrained x 2007 cohort	-0.040	-0.085	-0.070	0.014	0.008	0.080	0.093	0.052
	(0.044)	(0.045)+	(0.046)	(0.034)	(0.030)	(0.037)*	(0.036)*	(0.029)+
	{0.172}	{0.304}	{0.335}	{0.291}	{0.520}	{0.117}	{0.350}	{0.383}
Constrained x 2008 cohort	-0.028	-0.018	-0.039	-0.035	0.038	0.039	0.043	0.053
	(0.037)	(0.033)	(0.029)	(0.036)	(0.032)	(0.031)	(0.026)	(0.028)+
	{0.260}	{0.502}	{0.316}	{0.229}	{0.358}	{0.221}	{0.460}	{0.427}
Test of equality (*p*-value)	0.654	0.121	0.549	0.541	0.402	0.276	0.540	0.821
Observations	59,802	58,981	59,172	59,513	58,987	58,199	57,686	57,114
B. Entered community college								
Constrained x 2006 cohort	-0.012	0.003	-0.043	0.035	0.025	-0.030	-0.027	0.008
	(0.033)	(0.034)	(0.039)	(0.038)	(0.046)	(0.033)	(0.035)	(0.037)
	{0.672}	{0.912}	{0.234}	{0.453}	{0.382}	{0.409}	{0.431}	{0.753}
Constrained x 2007 cohort	0.013	0.008	-0.064	-0.041	-0.011	-0.019	-0.030	-0.018
	(0.037)	(0.041)	(0.043)	(0.04)	(0.044)	(0.038)	(0.034)	(0.032)
	{0.691}	{0.779}	{0.162}	{0.419}	{0.522}	{0.56}	{0.414}	{0.465}
Constrained x 2008 cohort	0.018	-0.001	-0.079	-0.092	0.023	-0.025	-0.008	0.011
	(0.036)	(0.046)	(0.037)*	(0.039)*	(0.044)	(0.043)	(0.041)	(0.043)
	{0.644}	{0.976}	{0.147}	{0.272}	{0.318}	{0.468}	{0.739}	{0.634}
Test of equality (*p*-value)	0.699	0.980	0.721	0.046	0.778	0.971	0.841	0.741
Observations	36,419	35,307	34,488	34,114	33,769	33,405	33,020	32,665

Notes: See Table B.X for description of sample and specification. Each column within a panel contains estimates from separate regressions; dependent variable is ln(earnings) X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel. The *p*-values from tests of the equality of coefficients for each set of estimates is reported at the bottom of each panel.

Table E.11: The effect of loan limit increases on other financial outcomes, flexible specification

	(1) Any credit card, 1 year after entry	(2) Ever delinquent student loan	(3) Ever default student loan	(4) Delinquent on any debt	(5) Any mortgage	(6) Any auto loan
Constrained x 2004 cohort	0.011	0.012	0.009	0.009	-0.008	0.012
	(0.009)	(0.007)+	(0.007)	(0.005)	(0.008)	(0.010)
	{0.104}	{0.099}	{0.080}	{0.103}	{0.083}	{0.109}
Constrained x 2006 cohort	-0.011	-0.003	-0.005	0.001	-0.002	0.016
	(0.006)+	(0.007)	(0.006)	(0.007)	(0.006)	(0.009)+
	{0.094}	{0.108}	{0.093}	{0.074}	{0.082}	{0.098}
Constrained x 2007 cohort	-0.051	-0.002	-0.010	-0.001	-0.006	0.007
	(0.008)**	(0.006)	(0.005)+	(0.007)	(0.007)	(0.010)
	{0.122}	{0.099}	{0.102}	{0.339}	{0.084}	{0.108}
Constrained x 2008 cohort	-0.047	-0.025	-0.030	-0.0001	-0.0001	0.008
	(0.008)**	(0.007)**	(0.006)**	(0.007)	(0.007)	(0.011)
	{0.127}	{0.078}	{0.066}	{0.434}	{0.612}	{0.090}
Test of eq. (*p*-val): 2006=2007=2008	<0.001	0.030	0.022	0.970	0.742	0.311

Notes:

Table E.12: IV estimates of the effect of student loans on attainment and earnings, 8 years after college entry

	(1) Total years enrolled	(2) Total credits earned	(3) Any degree	(4) Bachelor's degree	(5) Associate degree	(6) Ln(earnings)
A. Four-year college entrants (N = 74,132)						
Cumulative loans ($1k)	0.066	3.08	0.023	0.028	-0.004	0.022
	(0.025)**	(1.03)**	(0.008)**	(0.010)**	(0.003)	(0.010)*
Observations	74,132	74,129	74,129	74,129	74,129	57,110
B. Community college entrants (N = 43,122)						
Cumulative loans ($1k)	0.124	4.50	0.014	-0.002	0.017	0.001
	(0.038)**	(1.04)**	(0.010)	(0.009)	(0.009)+	(0.032)
Observations	43,122	43,121	43,121	43,121	43,121	32,664

Notes: Texas sample, see Table 3 notes for definition. Each column contains estimates from separate regressions; dependent variable is indicated in the column heading, measured 8 years after entry. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Excluded instruments are **1**[constrained x 2006 cohort], **1**[constrained x 2007 cohort], **1**[constrained x 2008 cohort]. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$.

Table E.13: Effects of statutory loan limit on cumulative borrowing for Texas community college entrants

Years since entry =	4	6
Constrained x AggLimExp ($1k)	188	181
	(49)**	(55)**
	{0.006}	{0.026}

Notes: Texas community college entrant sample (N = 43,122). See Table X notes for sample definitions. All specifications also include an indicator for being constrained at entry, AggLimExp, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table E.14: Effects of statutory loan limit increases on attainment for Texas 4-year entrants

X =	1	2	3	4	5	6	7	8
A. Enrollment X years later								
Constrained x AggLimExp ($1k)	0.009	0.008	0.008	0.004	-0.0001	-0.002	-0.003	-0.001
	(0.002)**	(0.002)**	(0.002)**	(0.002)*	(0.002)	(0.001)+	(0.001)**	(0.001)
	{0.075}	{0.061}	{0.070}	{0.038}	{0.862}	{0.117}	{0.069}	{0.032}
B. Cumulative years of enrollment								
Constrained x AggLimExp ($1k)	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.02
	(0.002)**	(0.003)**	(0.01)**	(0.01)**	(0.01)**	(0.01)**	(0.01)**	(0.01)**
	{0.049}	{0.058}	{0.062}	{0.029}	{0.049}	{0.051}	{0.034}	{0.052}
C. Cumulative credits earned								
Constrained x AggLimExp ($1k)	0.58	0.85	1.05	1.13	1.14	1.12	1.07	1.07
	(0.11)**	(0.16)**	(0.22)**	(0.23)**	(0.24)**	(0.24)**	(0.23)**	(0.23)**
	{0.027}	{0.058}	{0.046}	{0.032}	{0.037}	{0.043}	{0.046}	{0.041}
D. Any degree or credential								
Constrained x AggLimExp ($1k)	-0.0002	0.0002	0.005	0.007	0.008	0.008	0.008	0.007
	(0.0002)	(0.0004)	(0.001)**	(0.002)**	(0.002)**	(0.002)**	(0.002)**	(0.002)**
	{0.474}	{0.794}	{0.092}	{0.056}	{0.053}	{0.067}	{0.044}	{0.050}
E. Bachelor's degree								
Constrained x AggLimExp ($1k)			0.005	0.007	0.009	0.009	0.009	0.009
			(0.001)**	(0.002)**	(0.002)**	(0.002)**	(0.002)**	(0.002)**
			{0.063}	{0.047}	{0.065}	{0.070}	{0.046}	{0.066}
F. Associate degree								
Constrained x AggLimExp ($1k)		-0.0001	-0.0001	-0.0003	-0.001	-0.001	-0.001	-0.001
		(0.0003)	(0.0004)	(0.0004)	(0.001)	(0.001)	(0.001)	(0.001)+
		{0.631}	{0.798}	{0.503}	{0.089}	{0.156}	{0.272}	{0.104}

Notes: Texas four-year entrant sample (N = 74,122). See Table X notes for sample definitions. See Table E.13 notes for specification description. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table E.16: Effects of statutory loan limit increases on attainment for Texas community college entrants

X =	1	2	3	4	5	6	7	8
A. Enrollment X years later								
Constrained x AggLimExp ($1k)	0.007	0.004	0.004	0.005	0.001	-0.001	0.0001	-0.0002
	(0.002)**	(0.002)*	(0.002)**	(0.002)*	(0.002)	(0.001)	(0.001)	(0.001)
	{0.018}	{0.056}	{0.048}	{0.057}	{0.266}	{0.483}	{0.955}	{0.806}
B. Cumulative years of enrollment								
Constrained x AggLimExp ($1k)	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.021
	(0.002)**	(0.003)**	(0.01)**	(0.01)**	(0.01)**	(0.01)*	(0.01)*	(0.01)*
	{0.022}	{0.013}	{0.021}	{0.017}	{0.028}	{0.018}	{0.018}	{0.021}
C. Cumulative credits earned								
Constrained x AggLimExp ($1k)	0.43	0.56	0.69	0.77	0.78	0.77	0.76	0.76
	(0.10)**	(0.12)**	(0.16)**	(0.20)**	(0.23)**	(0.23)**	(0.23)**	(0.24)**
	{0.08}	{0.059}	{0.056}	{0.071}	{0.081}	{0.073}	{0.075}	{0.083}
D. Any degree or credential								
Constrained x AggLimExp ($1k)	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.002
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
	{0.775}	{0.566}	{0.572}	{0.42}	{0.518}	{0.443}	{0.557}	{0.381}
E. Bachelor's degree								
Constrained x AggLimExp ($1k)			-0.0001	0.001	-0.0002	-0.0001	-0.0002	-0.001
			(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
			{0.880}	{0.751}	{0.900}	{0.939}	{0.858}	{0.696}
F. Associate degree								
Constrained x AggLimExp ($1k)		0.001	0.002	0.002	0.002	0.003	0.003	0.003
		(0.001)*	(0.001)*	(0.001)*	(0.001)+	(0.001)*	(0.001)+	(0.001)*
		{0.573}	{0.377}	{0.277}	{0.325}	{0.236}	{0.269}	{0.204}

Notes: Texas community college entrant sample (N = 43,122). See Table X notes for sample definitions. See Table E.13 notes for specification description. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table E.17: The effect of statutory loan limit increases on labor market outcomes for Texas four-year entrants

X =	1	2	3	4	5	6	7	8
A. Any earnings X years after entry (N = 74,132)								
Constrained x AggLimExp ($1k)	-0.004	-0.003	-0.001	-0.002	-0.003	-0.001	-0.002	-0.002
	(0.001)**	(0.001)**	(0.001)	(0.001)*	(0.001)*	(0.001)	(0.001)+	(0.001)*
	{0.086}	{0.067}	{0.322}	{0.101}	{0.143}	{0.162}	{0.266}	{0.117}
B. Ln(earnings) X years after entry								
Constrained x AggLimExp ($1k)	-0.005	-0.005	-0.007	-0.003	0.004	0.008	0.009	0.008
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)*	(0.003)**	(0.003)*
	{0.059}	{0.251}	{0.119}	{0.521}	{0.354}	{0.057}	{0.125}	{0.153}
Observations	59,802	58,981	59,172	59,513	58,987	58,199	57,686	57,114

Notes: Texas four-year entrant sample (N = 74,122). See Table X notes for sample definitions. See Table E.13 notes for specification description. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table E.18: The effect of statutory loan limit increases on labor market outcomes for Texas community college entrants

X =	1	2	3	4	5	6	7	8
A. Any earnings X years after entry (N = 43,122)								
Constrained x AggLimExp ($1k)	0.001	0.004	0.003	0.001	0.0004	0.002	0.002	0.001
	(0.001)	(0.002)*	(0.001)*	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
	{0.132}	{0.021}	{0.029}	{0.265}	{0.685}	{0.265}	{0.204}	{0.603}
B. Ln(earnings) X years after entry								
Constrained x AggLimExp ($1k)	0.003	0.001	-0.009	-0.009	0.001	-0.004	-0.002	-0.0002
	(0.004)	(0.005)	(0.004)*	(0.004)*	(0.004)	(0.004)	(0.004)	(0.005)
	{0.580}	{0.835}	{0.040}	{0.245}	{0.629}	{0.245}	{0.447}	{0.940}
Observations	36,419	35,307	34,488	34,114	33,769	33,405	33,020	32,665

Notes: Texas community college entrant sample (N = 43,122). See Table X notes for sample definitions. See Table E.13 notes for specification description. Each column within a panel contains estimates from separate regressions; dependent variable is indicated in the subpanel heading, measured X years after entry, where the value of X is indicated in column heading. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$; p-values from wild-t cluster bootstrap in brackets.

Table E.19: IV estimates of the effect of student loans on attainment and earnings, 8 years after college entry

	(1) Total years enrolled	(2) Total credits attempted	(3) Any degree	(4) Bachelor's degree	(5) Associate degree	(6) Ln(earnings)
A. Four-year college entrants (N = 74,132)						
Cumulative loans ($1k)	0.070	3.33	0.022	0.027	-0.004	0.023
	(0.024)**	(1.00)**	(0.007)**	(0.009)**	(0.003)	(0.011)*
Observations	74,132	74,129	74,129	74,129	74,129	57,110
B. Community college entrants (N = 43,122)						
Cumulative loans ($1k)	0.125	4.64	0.013	-0.003	0.017	-0.001
	(0.040)**	(1.09)**	(0.010)	(0.010)	(0.009)+	(0.032)
Observations	43,122	43,121	43,121	43,121	43,121	32,664

Notes: Texas sample, see Table 3 notes for definition. Each column contains estimates from separate regressions; dependent variable is indicated in the column heading, measured 8 years after entry. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, entry school fixed effects, and controls for race (white, URM), age at entry, EFC at entry, and gender. Constrained x AggLimExp ($1k) serves as excluded instrument. Robust standard errors, clustered by entry institution, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$.

Table E.20: IV estimates of the effect of student loans on selected financial outcomes, 8 years after college entry

	(1) Ever delinquent student loan	(2) Ever default student loan	(3) Any delinquent debt	(4) Any mortgage	(5) Any auto loan
Cumulative loans ($1k)	-0.011	-0.013	-0.002	0.001	0.0001
	(0.003)**	(0.003)**	(0.002)	(0.002)	(0.003)

Notes: CCP/Equifax sample, see Table 3 notes for definition (N = 145,616). Each column contains estimates from separate regressions; dependent variable is indicated in the column heading, measured 8 years after entry. Credit score = Equifax risk score. All specifications also include an indicator for being constrained at entry, cohort entry year fixed effects, state at entry fixed effects, and age fixed effects. Constrained x AggLimExp ($1k) serves as excluded instrument. Robust standard errors, clustered by entry state, in parentheses; + $p < 0.1$, * $p < 0.05$, **$p < 0.01$.

Appendix F: Welfare Analysis

We the framework of Denning, Marx, and Turner (2018) to evaluate the welfare implications of a marginal increase in federal student loan limits. In this model, welfare effects depend on the net externalities generated through behavioral responses to the policy as well as direct welfare effects of changes in agents' ability to smooth consumption from the policy change. With respect to externalities, we limit our analysis to the fiscal externalities of the policy change. To the extent that non-fiscal externalities are positive, this simplification will provide a lower-bound for net externalities. Denning, Marx, and Turner (2018) show that direct welfare effects will be positive for the average college student, so we similarly abstract from this component.

In the case of student loan limits, negative fiscal externalities will arise from several sources (see Table F.1 for a summary). First, the additional borrowing due to the increase in loan limits will reduce government revenue if some portion of a given dollar of student loan debt is not repaid due to default or debt forgiveness. To estimate the cost of an additional dollar lent, we use the Congressional Budget Office's March 2020 Baseline average subsidy rate for undergraduate Stafford Loans for 2020. The subsidy rate is the present discounted value of the expected cost of providing an additional dollar of federal loan aid.[10] We find that increased limits reduce default which we will account for in the discussion of the benefits of the policy change. Second, loan limit increases lead to an increase in years spent in college, which imposes additional costs on the government due to increased direct subsidies to public institutions and increased grant aid provided to students. For the cost of the direct subsidy, we use the average net subsidy reported in IPEDS for the 2009-2010 academic year multiplied by the effect of $1000 increase in borrowing (due to loan limit increases) on years of attendance (0.066 for four-year entrants, per Table 11 and 0.165 for community college entrants, per Table C.15). For the cost of additional grant aid received by students, we use the average amount of grant aid received by students in their year of entry (Table 3) multiplied by the effect of additional borrowing on years of attendance.

The final negative fiscal externality comes from the reduction in four-year entrants' earnings and corresponding fall in federal tax revenue one through three years after college entry (Table C.11). We scale the decrease in earnings in early years by the increase in loan debt measured six years after entry (Table 5) to get an estimated $128 reduction in earnings in these three years per $1000 increase in loans. To convert the reduction in earnings into effects on federal tax revenue, we follow Denning, Marx, and Turner (2019) to match average four-year entrant earnings in the

[10] See https://www.cbo.gov/system/files/2020-03/51310-2020-03-studentloan.pdf for additional details. CBO estimates a 7.51 percent subsidy rate for subsidized Stafford Loans in 2020 and a -2.77 rate for unsubsidized Stafford Loans. We use the weighted (by loan volume) average of these rates; 47 percent of undergraduate Stafford Loans disbursed in 2020 were subsidized.

Texas sample to average marginal tax rates for American Community Survey sample members (calculated via NBER's TAXSIM) of similar ages and income ranges as Texas four-year entrants (see Online Appendix D of Denning, Marx, and Turner (2019) for additional details). We estimate the following average marginal federal income tax rates for four-year entrants: 5.14% (1 year after entry), 6.52% (2 years after entry), and 8.58% (3 years after entry). FICA taxes are assumed to be 15.3%. As we find no effects of loan limit increases on community college entrants' earnings or employment, we assume no lost federal income tax revenue for this population.

As summarized in Table F.1, the major costs associated with an increase in loan limits comes from the additional direct subsidy to public institutions ($552 per $1000 borrowed for four-year entrants and $976 for community college entrants) and grant aid to students ($357 per $1000 borrowed for four-year entrants and $445 for community college entrants). The direct cost of an additional $1000 in loans is only $20 and foregone federal tax revenue is only $28. Summing over categories yields a total cost of $957 per $1000 borrowing increase for four-year entrants and $1,441 for community college entrants. To get an overall cost per $1000 borrowed, we use the relative representation of four-year (65 percent) and community college (35 percent) entrants in the sample, yielding an estimated $1,126 cost per $1000 in additional borrowing due to increased loan limits.

Next, we turn to accounting for positive fiscal externalities that arise from increased borrowing when loan limits are increased. The first benefit is a fall in student loan default. We again use the Congressional Budget Office's estimate that $0.90 of every defaulted $1 of student loan debt is recovered. Thus, the per-borrower benefit of the reduction in the default rate will equal the product of the borrower's total balance (Table 3), the change in the default rate (0.012 per Table 12), and $0.10. The second positive fiscal externality comes from the increase in federal tax revenue due to the significant increases in earnings six, seven, and eight years after college entry (Table 8). We follow the same method used to calculate the federal tax revenue lost due to the reduction in early-year earnings, which yields average marginal federal income tax rates of 16.06%, 16.59%, and 16.63%. We again assume that the FICA tax rate equals 15.3%. As shown in Table F.2, increased federal tax revenue makes up the main fiscal benefit from increasing loan limits. Taking the weighted average of these amounts (assuming no change in federal tax revenue from community college students) yields a per-$1000 loan benefit of $470 in over the eight years after college entry. Note that almost all of this gain comes from four-year entrants and if loan limits were only increased for these students, the benefit per $1000 loan would be $715. For community college entrants, the benefit per $1000 loan increase is only $14.

If we assume that the estimated earnings gains received by four-year entrants persist for an additional five years, the estimated fiscal benefits of $1,241 will exceed the estimated fiscal costs.

Under this assumption, the additional borrowing due to higher loan limits will pay for itself within 13 years. If loan limits were only increased in the four-year sector, we would only need to assume that the four-year entrants' earnings gains persisted for an additional two years before fiscal benefits would exceed fiscal costs.

Table F.1: Estimated costs and data sources

Category	Source	Estimated cost/$1000 loan
Additional borrowing	CBO	$20
Net subsidy, public four-year institutions	IPEDS	$8,361/ year * 0.066 adtl. years = $552
Net subsidy, community colleges	IPEDS	$5,917/year * 0.165 adtl. years = $976
Grant aid, four-year entrants	Texas data	$5,406/year * 0.066 adtl. years = $357
Grant aid, community college entrants	Texas data	$2,696/year * 0.165 adtl. years = $445
Fed. tax revenue, four-year entrants	Texas data, ACS	$28

Table F.2: Estimated benefits and data sources

Category	Source	Estimated benefit/$1000 loan
Reduction in default rate, four-year entrants	CBO, Texas data	$18,633 * 0.012 * 0.10 = $22
Reduction in default rate, community college entrants	CBO, Texas data	$11,652 * 0.012 * 0.10 = $14
Fed. tax revenue, four-year entrants		
6 years after entry	Texas data, ACS	$177
7 years after entry	Texas data, ACS	$278
8+ years after entry	Texas data, ACS	$237