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Technical Appendices

Student Debt and the Value of a College Degree

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Contents

Appendix A: The Cost of Attending College

Increases in the costs of attending college have been an important driver of the increase in student debt. At most colleges, the primary cost of attending is that of tuition and fees.[1] Tuition has increased substantially at colleges in California and the rest of the nation. For students who pay the full price, tuition and fees are far higher at private colleges than at public colleges in California (Figure A1). Although the rate of increase has been faster at public four-year colleges, the total amount of the increase has been far greater at private colleges.

FIGURE A1
Average tuition and fees at California colleges by type of institution, 2000–10
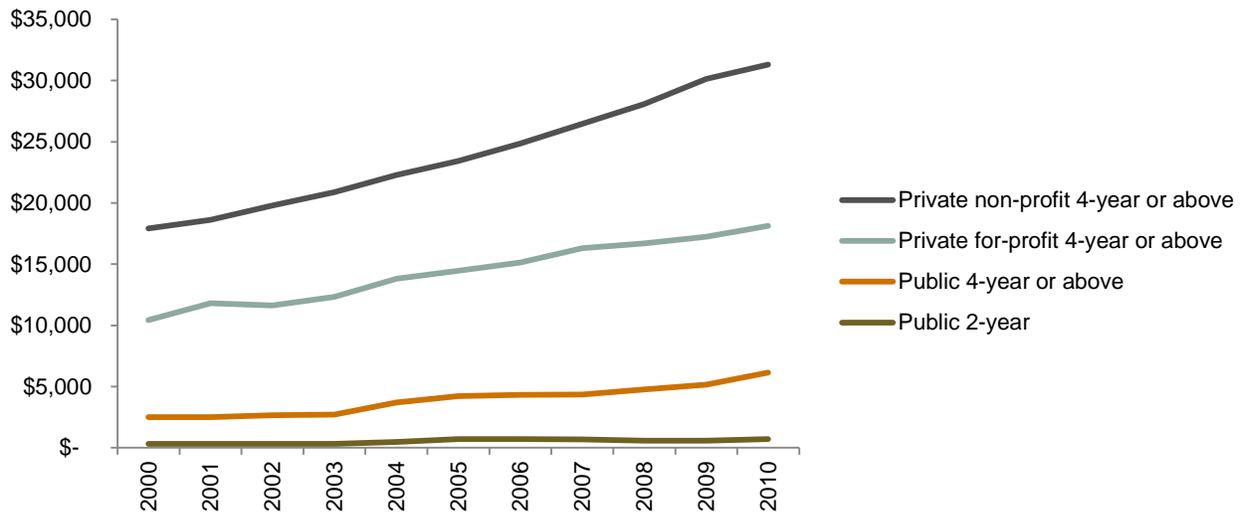
SOURCE: Authors' calculations based on IPEDS data as reported by the Delta Cost Project.

Not all students pay the full cost of tuition and fees, but net tuition (tuition less institutional grant aid) has also increased over the past 10 years, although less dramatically. Absolute increases have been greater at private colleges than at public colleges, but the rate of increase has been faster at public colleges (Table A1). Net tuition has increased the most at private for-profit institutions.

It is important to keep in mind that a large share of students receive institutional grants at many public non-profit four-year colleges in California, and the size of those grants is substantial. Lower but still significant shares of students at public four-year colleges receive other grants. In contrast, relatively few students receive institutional grants at private for-profit colleges, and those grants tend to be quite small (Table A2).

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[1] Room and board often costs more than tuition, especially at public colleges. However, it is not wholly an additional expense of college. Even young adults who do not attend college incur housing and food costs. Moreover, many college students do not live on campus and therefore do not incur the college's charges for room and board.

TABLE A1
Tuition and net tuition at California colleges, 2000 and 2010

	Not adjusted for inflation				In 2010 dollars			
	Tuition and fees		Net tuition and fees		Tuition and fees		Net tuition and fees	
	2000	2010	2000	2010	2000	2010	2000	2010
Public 4-year or above	$2,508	$6,141	$1,539	$3,579	$3,176	$6,141	$1,948	$3,579
Private non-profit 4-year or above	$18,600	$31,622	$12,469	$18,590	$23,553	$31,622	$15,790	$18,590
Private for-profit 4-year or above	$9,714	$18,392	$9,668	$17,906	$12,300	$18,392	$12,243	$17,906
Public 2-year	$321	$733	$251	$718	$406	$733	$318	$718
Private for-profit 2-year	$10,073	$13,477	$9,900	$13,266	$12,755	$13,477	$12,536	$13,266

SOURCE: Authors' calculations based on IPEDS data as reported by the Delta Cost Project.

NOTE: Net tuition and fees equals tuition and fees less institutional grants. Findings restricted to colleges with data on grants.

TABLE A2
Average institutional, state, and federal grants, 2000 and 2010

Average institutional grant: all first-time freshmen

	Not adjusted for inflation		In 2010 dollars	
	2000	2010	2000	2010
Public 4-year or above	$969	$2,562	$1,227	$2,562
Private non-profit 4-year or above	$6,131	$13,031	$7,764	$13,031
Private for-profit 4-year or above	$45	$486	$57	$486
Public 2-year	$70	$15	$88	$15
Private for-profit 2-year	$173	$212	$219	$212

Average state grant: all first-time freshmen

	Not adjusted for inflation		In 2010 dollars	
	2000	2010	2000	2010
Public 4-year or above	$524	$1,409	$664	$1,409
Private non-profit 4-year or above	$1,592	$1,449	$2,016	$1,449
Private for-profit 4-year or above	$419	$547	$531	$547
Public 2-year	$164	$453	$208	$453
Private for-profit 2-year	$474	$349	$600	$349

Average federal grant: all first-time freshmen

	Not adjusted for inflation		In 2010 dollars	
	2000	2010	2000	2010
Public 4-year or above	$873	$1,981	$1,106	$1,981
Private non-profit 4-year or above	$781	$1,469	$989	$1,469
Private for-profit 4-year or above	$1,000	$3,545	$1,266	$3,545
Public 2-year	$545	$1,621	$690	$1,621
Private for-profit 2-year	$2,931	$4,439	$3,711	$4,439

Appendix B: Data and Methods

This appendix describes the data and methods we used to analyze student debt and wage premiums.

Student Loans and Debt Data

We relied on multiple datasets to measure student debt. Ideally, we would prefer detailed records of student debt across time for individuals, along with information about the college, individual socioeconomic characteristics, and work experience after graduation. But such data do not exist. California does not maintain longitudinal records of student debt. Instead, institutions in the state provide limited summary measures of student debt to the federal government. Some institutions provide more-comprehensive summary measures through other means (such as the Common Data Set). National and state representative surveys of individuals, such as the Current Population Survey (CPS) and the American Community Survey (ACS), do not ask questions about student debt. Other surveys that provide information on student debt, such as the Survey of Consumer Finances, do not provide state identifiers.

In the main body of this report, we focused on two primary sources of information on student debt:

- Institutional data from IPEDS (via the Delta Cost Project) provide the most consistent data on student debt across time, institutions, and states. [2] The survey includes about 6,000 institutions and provides longitudinal records for them. We focus on the period from 2000 to 2010 in our analyses. Institutions (rather than students or individuals) are the smallest unit of analysis. Information on loans and loan amounts is collected primarily for first-time full-time freshmen.

- The Beginning Postsecondary Survey (BPS) is based on interviews and financial records (submitted via Free Application for Federal Student Aid [FAFSA] forms) of individual students. [3] The national sample includes over 16,000 individuals, more than 1,500 of whom are in California. The initial cohorts are drawn from the National Postsecondary Student Aid Study (NPSAS). Members of the most recent cohort of BPS, BPS:04/09, were initially surveyed at the end of their first academic year (2003–04) and then received invitations to participate in follow-up surveys at the end of their third (2005–06) and sixth (2008–09) years after entry in to postsecondary education. The final BPS:04/09 dataset contains information on nearly 16,700 students. Loan and debt information includes loans to students, such as Perkins and Stafford loans, but does not include loans to parents (such as PLUS loans). Student loan responses are verified against federal records.

In this appendix, we consider data from two additional sources of information:

- The Institute for College Access and Success (TICAS) provides information on student debt by state from institutions that voluntarily complete the Common Data Set. [4] This summary-level information has the advantage of providing total accumulated debt for graduating baccalaureate students (rather than focusing only on freshmen). Data are available for the class of 2011. The sample includes 55 percent of all four-year colleges, accounting for 79 percent of all bachelor's degrees awarded in 2010–11. However, private for-profit institutions are not included. The set of institutions that complete the Common Data Set varies from year to year.

- The NPSAS provides summary-level data from higher education institutions across the nation. Unlike IPEDS, NPSAS is based on a survey of such institutions. The most recently available survey (2007–08) included almost 2,000 institutions. This survey includes representative samples of

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[2] The data can be accessed at http://nces.ed.gov/ipeds/deltacostproject/, and the documentation is available at http://nces.ed.gov/ipeds/deltacostproject/download/DCP_History_Documentation.pdf.

[3] U.S. Department of Education, National Center for Education Statistics 2011. BPS longitudinal study, 2004–09.

[4] The data and reports are available at http://projectonstudentdebt.org/files/pub/classof2011.pdf.

institutions in six states, including California. The advantage of the NPSAS is that it provides measures of student debt for all currently enrolled students (not just freshmen or graduating seniors). One disadvantage is that the most recently available data are from 2007–08.[5]

According to the Common Data Set information compiled by TICAS, graduating baccalaureate students in California had the third lowest level of average debt among the 47 states in the sample (TICAS 2012). Total accumulated debt for those earning a bachelor's degree in 2010–11 was $18,879 in California, compared with $32,440 in New Hampshire, the state with the highest accumulated debt.

A second set of estimates from the NPSAS, which includes all students currently enrolled, found that median debt in California in 2008 ranged from $9,000 for undergraduates at public colleges to just over $15,000 for students at private colleges (among those with loans—see Table B1). Data from the NPSAS also allow us to consider the distribution of student debt. The NPSAS includes students currently enrolled in college, while the BPS reports on students who first enrolled in college six years earlier. According to the NPSAS, among all students enrolled in college in 2008, 10 percent of those with loans owed more than $30,000, while at the other end of the spectrum, 10 percent owed $2,625 or less. In California in 2008, the undergraduates who had accumulated the most debt were those at private institutions: 10 percent of students with loans at private for-profit colleges owed at least $35,000, and 10 percent of students at private non-profit colleges owed at least $44,875 (Table B1).

TABLE B1
Distribution of student loan debt among all students enrolled in college, 2008
(cumulative amount borrowed by students with loans)

	Percentile				
	10th	**25th**	**50th**	**75th**	**90th**
California					
Public 4-year	$3,000	$5,000	$9,000	$17,124	$24,986
Private non-profit 4-year	$4,375	$7,900	$15,050	$27,061	$44,875
Private for-profit degree-granting	$5,032	$8,361	$15,125	$24,281	$35,125
United States					
Public 4-year	$3,498	$5,498	$10,999	$20,000	$30,478
Private non-profit 4-year	$3,500	$7,225	$14,828	$25,122	$39,995
Private for-profit	$3,655	$6,668	$10,500	$18,875	$29,988

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 NPSAS (NPSAS:08).

NOTE: Sample restricted to undergraduates. Loan debt amounts include all enrolled undergraduate students with loans. Amounts are cumulative.

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[5] Details and methods of the survey are described in Appendix B at http://nces.ed.gov/pubs2009/2009166.pdf.

Wage Premiums Data

To evaluate labor market outcomes, we relied on decennial census data, the ACS, and the CPS. The results presented in the report rely on Census Public Use Micro Samples for 1990 and 2000 and the 2009–11 ACS three-year file. All Census samples are 5 percent of the population. Our more-restricted samples sizes for California are 402,077, 462,576, and 285,587, respectively. ACS samples for years after 2007 are best suited for examining earning differences among full-time year-round workers, since they provide information on annual earnings and usual weekly hours in the past year, but only categorical information on weeks worked in the previous year.

We also estimated wage premiums and predicted wages using the Current Population Survey Outgoing Rotation Groups (CPS-ORG) from 1979 to 2011 (these results are available upon request). The CPS-ORG files have substantially smaller sample sizes than the Decennial Census or the ACS but are an optimal source for exploring hourly wage trends over time. Unlike the retrospective annual earnings data in the March CPS or the Census/ACS, the CPS-ORG data provide point-in-time measures of usual hourly or weekly earnings. There are multiple challenges in creating a consistent hourly wage series from the CPS-ORG over a long period. The Center of Economic and Policy Research (CEPR) has created uniform extracts of the CPS-ORG that have been modified to create a consistent series of real hourly wages. Specifically, the CEPR has addressed issues related to changes in the top coding of weekly earnings; outliers; the uneven treatment of earnings from overtime, tips, and commissions between workers who report hourly wages and those who report weekly earnings; and the introduction in 1994 of the option to report that usual hours "vary" without having to report a specific number of hours (Schmitt 2003).

Student Loans and Debt Methods

Using the BPS, we developed two sets of regression models regarding student loans and debt. In the first set, we used logit models to evaluate the likelihood that a student ever took out a loan:

> Pr(loan) = fn(demographic characteristics, parents' education, family income, institutional characteristics, state, degree completion)

where Pr(loan) is a dummy variable taking on the value of 1 if a student ever took out a loan and 0 otherwise.

In the second set of models, we used ordinary least squares (OLS) regressions to evaluate the amount of student loan debt. In the student debt model, we restricted most of our analyses to students with a loan. Specifically, we estimated the following equation:

> Ln(debt) = fn(demographic characteristics, parents' education, family income, institutional characteristics, state, degree completion)

where Ln(debt) is the natural log of total accumulated student debt.

Appendix C provides details of the variables used in the models and the results of the regressions. In our comparisons of California with the rest of the United States, the sample was restricted to students who were attending college in their state of legal residence during the initial survey wave (2003–04).

Wage Premiums Methods

For our analysis of wage premiums (Figures 5 and 6 in the report), we rely on Mincer's human-capital wage equations. Specifically, wage premiums were estimated using regressions of log of real annual wages on education categorical variables (less than high school, some college, associate degree, bachelor's degree, master's degree, professional degree, and doctorate, with high school omitted), age, age squared, categorical variables for race/ethnicity (Hispanic, African American, Asian, and other, with white omitted), and dummy variables for marital status and citizenship status. We ran separate regressions by year and gender, limiting our sample to full-time and year-round workers 25 to 64 years of age employed in the public or private sector. Workers in the military and institutionalized or unincorporated self-employed workers are excluded. Annual wages below $1,700 in 2011 dollars are also dropped. For comparative purposes, we ran all our specifications for California and for the rest of the nation. Regression-adjusted wage premiums take account of the differing age and racial/ethnic distribution of each educational group; consequently, it is a better measure than a "wage premium" computed by simply dividing college-graduate wage by the high-school-only wage, for example. Although we controlled for personal characteristics to make comparisons between individuals who are as similar as can be observed, we do not have quasi-experimental variation concerning who goes to college. Thus, caution is necessary in making causal interpretations of the estimated wage premiums, since the potential problem of selection bias from nonrandom sorting on unobservables remains. A potential source of downward bias in the wage estimates for college graduates must also be considered. Specifically, we estimate wages for those who have completed a bachelor's degree separately from wages of those who have gone on to finish a graduate degree. Therefore, this information is only suggestive; it does not directly provide information on whether attendance at college is a worthwhile private or social investment.[6]

The ACS provided data on field of bachelor's degree for the first time in 2009. Respondents who held a bachelor's degree or above were asked to write in the specific field(s) of any bachelor's degree earned. The U.S. Census Bureau coded these responses into 188 majors, which were then collapsed into overlapping sets of fields (see Table D6 in Appendix D). To increase the statistical reliability of the estimates, we use the 2009–11 ACS multiyear file. We selected fields with at least 500 individuals in our sample, ending up with 26 major fields. Also, we restricted our sample to individuals with a bachelor's degree or less. To analyze wage premiums and predicted wages across study fields, we added categorical variables for each field of study in our specification.

Synthetic work-life earnings were estimated using one-point-in-time cross-sectional data, as opposed to following a single cohort from the start of the work life to the end. In other words, this methodology estimates the amounts that young workers will earn over the course of a hypothetical 40-year work life if they are paid in the same manner as older workers are paid today. Therefore, these figures are only suggestive of accumulated future earnings, since earnings differences observed today may not continue in the future. Furthermore, this analysis does not include future salary growth or inflationary adjustments. Work-life earnings are estimated for full-time year-round workers ages 25 to 64, using predicted wages from standard human-capital regressions based on ACS data for 2009–11. To construct expected work-life earnings, five-year age-group-specific mean earnings are summed across educational levels. We discount future earnings at a 3 percent rate, which is in line with the current 30-year U.S. Treasury Bond interest rate of 2.78 percent, to calculate the present value of what a typical California worker with only a high school diploma and one with a bachelor's degree would be expected to earn over a 40-year work life. We assume

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[6] See Deming, Goldin, and Katz 2012, p.160.

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that the student attends a four-year public institution; thus, our figure can be interpreted as an upper threshold, as it does not take into account grant aid and federal income tax payments. The out-of-pocket expenses of most students are significantly lower than that. Assuming that a worker completes a bachelor's degree in four years, forgone earnings are equal to the salary earned by a full-time year-round worker between the ages of 20 and 24 with a high school diploma, multiplied by four. When the cost of attending college and the forgone earnings are subtracted from the difference in work-life earnings between college and high school graduates, we get an estimate of the net payoff of pursuing a bachelor's degree.[7]

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[7] For our calculation of the net payoff of attending college, we are following the methodology used in Pew Research Center 2001, ch.5.

Appendix C: Results of Statistical Models on Student Loans and Debt

See Appendix B for a description of the data and models.

TABLE C1
Variables used in the models

Variable	Description
Cumuln09	Cumulative loans borrowed by BPS participant through 2009.
Age	Continuous variable for respondent age.
Agesqr	Respondent's age squared.
Asian	1 if respondent indicates race as Asian, else 0.
Black	1 if respondent indicates race as African American, else 0.
Hisp	1 if respondent indicates race as Hispanic, else 0.
Otherrace	1 if respondent indicates race as Other, Pacific Islander or Native Hawaiian, American Indian or Native American, or multirace else 0.
White	1 if respondent indicates race as white, else 0.
Atdeg6	Degree attainment as of 2009.
Cadummy	1 if institution is in California, else 0.
fullmonths	Number of months studied full-time and half the number of months studied part-time.
group1	4 year institutions.
group2	2 year institutions.
group3	Institutions whose longest courses last less than 2 years.
hrswk06	Number of hours worked per week while enrolled during the last term in 2006.
Lncumuln09	Natural log of cumulative loans borrowed in 2009.
lnfaminc04	The log of the family income of dependent children or the income of independent students.
Loandummy09	1 if cumulative loans are greater than 0, else1.
Massivedebt09	1 if cumulative loans equal or exceed $40,000
netcst35	Tuition and fees minus all grants and Veteran's Administration benefits.
Parunknown	1 if parents' highest level of education is unknown, else 0.
Parnohs	1 if parents' highest level of education is high school with no diploma or less, else 0.
Parhsdip	1 if parents' highest level of education is high school diploma, else 0.
parsomecollege	1 if parents' highest level of education is some college with no degree earned, else 0.
Parassocdeg	1 if parents' highest level of education is an associate's degree, else 0.
Parbach	1 if parents' highest level of education is a bachelor's degree, else 0.
pargraddeg	1 if parents' highest level of education is beyond a bachelor's degree.
Parbonative	1 if both parents were born in the United States, else 0.
Paronenative	1 if one parent was born in the United States, else 0.
Parnonative	1 if neither parent was born in the United States, else 0.
Pub4yr09	1 if institution is a public 4-year college, else 0.
Pub2yr09	1 if institution is a public 2-year college, else 0.
Publt2yr09	1 if institution is a public less than 2-year college, else 0.
Privfp4yr09	1 if institution is a private for-profit 4-year college, else 0.
Privfp2yr09	1 if institution is a private for-profit 2-year college, else 0.
Privfplt2yr09	1 if institution is a private for-profit less than 2-year college, else 0.
Privnp4yr09	1 if institution is a private non-profit 4-year college, else 0.
Privnp2yr09	1 if institution is a private non-profit 2-year college, else 0.
Privnplt2yr09	1 if institution is a private non-profit less than 2-year college, else 0.

SOURCE: Beginning Postsecondary Survey

TABLE C2
Descriptive statistics of variables used in the models

Variable	Observations	Mean	Std. Dev.
age	14142	21.55	7.32
agesqr	14142	518.0082	471.645
asian	14142	0.041437	0.199305
black	14142	0.136261	0.343077
hisp	14142	0.136756	0.343602
otherrace	14142	0.051549	0.221122
white	14142	0.633998	0.481727
atdeg6	14142	0.540801	0.49835
cadummy	14142	0.077358	0.267168
fullmonths	14142	32.00781	16.32187
group1	14142	0.550205	0.497491
group2	14142	0.362325	0.480689
group3	14142	0.08747	0.282533
hrswk06	14142	16.28	15.88
lncumuln09	8596	9.360353	0.985434
lnfaminc04	13850	10.51829	1.038687
loandummy09	14142	0.607835	0.488251
massivedebtdummy09	14142	0.062367	0.24183
netcst35	13149	2980.06	4509.78
parunknown	14142	0.024183	0.153623
parnohs	14142	0.072974	0.260103
parhsdip	14142	0.271602	0.444802
parsomecollege	14142	0.180738	0.384815
parassocdeg	14142	0.075803	0.264691
parbach	14142	0.202517	0.40189
pargraddeg	14142	0.172182	0.377552
parbonative	14142	0.791684	0.406118
paronenative	14142	0.062085	0.241318
parnonative	14142	0.146231	0.35335
pub4yr09	14142	0.347476	0.476185
pub2yr09	14142	0.313746	0.464031
publt2yr09	14142	0.024183	0.153623
privfp4yr09	14142	0.039457	0.194686
privfp2yr09	14142	0.034719	0.183074
privfplt2yr09	14142	0.059398	0.236376
privnp4yr09	14142	0.163273	0.369627
privnp2yr09	14142	0.013859	0.116912
privnplt2yr09	14142	0.003889	0.062244

SOURCE: Beginning Postsecondary Survey

TABLE C3
Regression results for logit model, with dependent variable whether a student ever took out a loan (0=no, 1=yes)

loandummy09	Odds Ratio	Robust Std. Err.	z	P>z	[95% Conf.	Interval]
cadummy	0.628163	0.067627	-4.32	0	0.508667	0.775731
pub2yr09	0.316911	0.022585	-16.12	0	0.275597	0.364417
publt2yr09	0.215218	0.067639	-4.89	0	0.116242	0.398468
privfp4yr09	4.549656	0.99618	6.92	0	2.962115	6.988037
privfp2yr09	6.684357	2.430635	5.22	0	3.277457	13.63271
privfplt2yr09	1.987518	0.390353	3.5	0	1.352488	2.920712
privnp4yr09	1.894301	0.150613	8.03	0	1.620956	2.21374
privnp2yr09	1.450511	0.694134	0.78	0.437	0.567785	3.7056
privnplt2yr09	0.398498	0.202271	-1.81	0.07	0.147357	1.077659
black	2.128934	0.222962	7.21	0	1.733868	2.614016
hisp	0.93825	0.10191	-0.59	0.557	0.758339	1.160844
asian	0.815849	0.12691	-1.31	0.191	0.601452	1.106671
amerind	0.55957	0.196031	-1.66	0.097	0.281616	1.111863
pinh	1.042123	0.682444	0.06	0.95	0.288736	3.761284
otherrace	1.020099	0.233375	0.09	0.931	0.65149	1.597266
multirace	1.356458	0.225518	1.83	0.067	0.979241	1.878984
parnohs	1.051639	0.173458	0.31	0.76	0.761148	1.452995
parunknown	0.556646	0.130456	-2.5	0.012	0.351634	0.881186
parvoced	0.942296	0.157895	-0.35	0.723	0.678511	1.308633
parlt2yr	1.063577	0.123399	0.53	0.595	0.847248	1.335141
parassocdeg	0.965459	0.115379	-0.29	0.769	0.763853	1.220275
par2yrnodeg	0.867266	0.122559	-1.01	0.314	0.657452	1.14404
parbach	0.738733	0.064808	-3.45	0.001	0.622033	0.877328
parmasters	0.629744	0.061892	-4.71	0	0.519406	0.76352
parfirstprof	0.476419	0.08272	-4.27	0	0.338998	0.669547
pardoctoral	0.420698	0.067986	-5.36	0	0.306489	0.577467
paronenative	0.775019	0.101629	-1.94	0.052	0.599369	1.002146
parnonative	0.751115	0.081098	-2.65	0.008	0.607858	0.928134
age	0.373186	0.216057	-1.7	0.089	0.119983	1.160725
agesqr	1.025251	0.014975	1.71	0.088	0.996317	1.055025
lnparinc06	0.681245	0.045598	-5.73	0	0.597488	0.776744
atdeg6	1.408997	0.139877	3.45	0.001	1.159865	1.711641

SOURCE: Beginning Postsecondary Survey

TABLE C4
Regression results for logit model, with dependent variable whether a student ever took out a loan (0=no, 1=yes), restricted to four- year colleges

loandummy09	Odds Ratio	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	0.682116	0.103948	-2.51	0.012	0.505992	0.919544
privfp4yr09	4.588924	0.924781	7.56	0	3.091526	6.811596
privnp4yr09	1.913899	0.174312	7.13	0	1.601012	2.287935
black	2.687178	0.426644	6.23	0	1.968571	3.668107
hisp	0.758349	0.108949	-1.93	0.054	0.572243	1.004982
asian	0.649548	0.128779	-2.18	0.03	0.440406	0.958011
otherrace	0.952134	0.164894	-0.28	0.777	0.678085	1.33694
parnohs	1.181591	0.279721	0.7	0.481	0.742951	1.879205
parunknown	0.539578	0.160806	-2.07	0.038	0.30087	0.967677
parsomecol~e	1.087298	0.143703	0.63	0.527	0.839169	1.408796
parassocdeg	0.963024	0.156811	-0.23	0.817	0.699897	1.325073
parbach	0.656858	0.077172	-3.58	0	0.521755	0.826945
pargraddeg	0.523501	0.06328	-5.35	0	0.413073	0.663451
paronenative	0.766525	0.126827	-1.61	0.108	0.554228	1.060142
parnonative	0.706848	0.094132	-2.61	0.009	0.544465	0.91766
age	1.060147	0.054252	1.14	0.254	0.958975	1.171994
agesqr	0.998642	0.000792	-1.71	0.087	0.997091	1.000195
lnfaminc04	0.770665	0.04395	-4.57	0	0.689164	0.861804
atdeg6	0.799169	0.074274	-2.41	0.016	0.666084	0.958845
fullmonths	1.035172	0.003477	10.29	0	1.028379	1.042009
hrswk06	1.006513	0.002703	2.42	0.016	1.001229	1.011825
netcst35	1.000001	8.35E-06	0.14	0.892	0.999985	1.000017

SOURCE: Beginning Postsecondary Survey

TABLE C5
Regression results for logit model, with dependent variable whether a student ever took out a loan (0=no, 1=yes), restricted to two-year colleges

loandummy09	Odds Ratio	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	0.478078	0.088076	-4.01	0	0.333183	0.685985
privfp2yr09	11.19226	3.375998	8.01	0	6.19675	20.2149
privnp2yr09	2.622392	0.858219	2.95	0.003	1.380792	4.98043
black	1.579984	0.251072	2.88	0.004	1.157152	2.157323
hisp	0.840872	0.13192	-1.1	0.269	0.618286	1.143591
asian	0.679915	0.226973	-1.16	0.248	0.353429	1.307998
otherrace	1.124247	0.214744	0.61	0.54	0.773165	1.63475
parnohs	1.05036	0.186959	0.28	0.783	0.741018	1.48884
parunknown	0.790105	0.199575	-0.93	0.351	0.481591	1.296259
parsomecol~e	0.956698	0.147532	-0.29	0.774	0.70715	1.294308
parassocdeg	1.057336	0.209394	0.28	0.778	0.717203	1.558777
parbach	0.757654	0.119288	-1.76	0.078	0.556485	1.031544
pargraddeg	0.662988	0.112921	-2.41	0.016	0.47482	0.925727
paronenative	0.75798	0.169413	-1.24	0.215	0.489112	1.174644
parnonative	0.745937	0.12525	-1.75	0.081	0.536757	1.036637
age	1.127527	0.048203	2.81	0.005	1.036901	1.226074
agesqr	0.997693	0.000669	-3.44	0.001	0.996382	0.999005
lnfaminc04	0.823795	0.042561	-3.75	0	0.744462	0.911582
atdeg6	0.877214	0.105218	-1.09	0.275	0.693437	1.109695
fullmonths	1.047055	0.004358	11.05	0	1.038549	1.055631
hrswk06	0.996468	0.002886	-1.22	0.222	0.990827	1.002141
netcst35	1.000302	0.000029	10.42	0	1.000245	1.000358

SOURCE: Beginning Postsecondary Survey

TABLE C6
Regression results for OLS model, with dependent variable the log of the total
accumulated loan amount, restricted to students with loans

lncumuln09	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
cadummy	-0.07407	0.059999	-1.23	0.217	-0.19169	0.043546
pub2yr09	-0.80744	0.041662	-19.38	0	-0.88911	-0.72577
publt2yr09	-1.09559	0.227922	-4.81	0	-1.54239	-0.6488
privfp4yr09	0.125215	0.071296	1.76	0.079	-0.01455	0.264977
privfp2yr09	-0.23653	0.07405	-3.19	0.001	-0.3817	-0.09137
privfplt2yr09	-0.69196	0.077051	-8.98	0	-0.843	-0.54092
privnp4yr09	0.370058	0.035867	10.32	0	0.299749	0.440367
privnp2yr09	-0.20017	0.179233	-1.12	0.264	-0.55152	0.151182
privnplt2yr09	-0.27359	0.312943	-0.87	0.382	-0.88706	0.339868
black	-0.08031	0.046912	-1.71	0.087	-0.17228	0.011648
hisp	-0.16272	0.055418	-2.94	0.003	-0.27136	-0.05409
asian	-0.09132	0.081702	-1.12	0.264	-0.25148	0.068837
amerind	-0.31901	0.202797	-1.57	0.116	-0.71655	0.078536
pinh	0.450239	0.237574	1.9	0.058	-0.01548	0.915955
otherrace	-0.12958	0.13853	-0.94	0.35	-0.40114	0.141977
multirace	0.020614	0.096643	0.21	0.831	-0.16884	0.210064
parnohs	0.007417	0.076803	0.1	0.923	-0.14314	0.157974
parunknown	-0.07055	0.093617	-0.75	0.451	-0.25407	0.112968
parvoced	0.185833	0.06418	2.9	0.004	0.06002	0.311646
parlt2yr	0.014579	0.056834	0.26	0.798	-0.09683	0.125991
parassocdeg	0.040172	0.057929	0.69	0.488	-0.07339	0.153729
par2yrnodeg	0.032878	0.068206	0.48	0.63	-0.10083	0.166582
parbach	0.001036	0.043902	0.02	0.981	-0.08503	0.087096
parmasters	0.004573	0.051803	0.09	0.93	-0.09698	0.106123
parfirstprof	0.0419	0.10218	0.41	0.682	-0.1584	0.242203
pardoctoral	0.025599	0.079042	0.32	0.746	-0.12935	0.180546
paronenative	-0.11436	0.063643	-1.8	0.072	-0.23911	0.010404
parnonative	-0.00633	0.060779	-0.1	0.917	-0.12548	0.112812
age	-0.20327	0.255487	-0.8	0.426	-0.70411	0.297556
agesqr	0.004494	0.006449	0.7	0.486	-0.00815	0.017136
lnparinc06	-0.00507	0.031249	-0.16	0.871	-0.06633	0.056184
atdeg6	0.348008	0.040823	8.52	0	0.267984	0.428033
_cons	11.71107	2.519464	4.65	0	6.772166	16.64998

SOURCE: Beginning Postsecondary Survey

TABLE C7
Regression results for OLS model, with dependent variable the log of the total accumulated loan amount, restricted to students with loans at four-year colleges

Incumuln09	Coef.	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	-0.01938	0.066854	-0.29	0.772	-0.15044	0.111684
privfp4yr09	0.345238	0.055974	6.17	0	0.235504	0.454972
privnp4yr09	0.272233	0.035337	7.7	0	0.202957	0.341509
black	-0.00772	0.044698	-0.17	0.863	-0.09535	0.079909
hisp	-0.27947	0.064209	-4.35	0	-0.40535	-0.15359
asian	-0.11577	0.083393	-1.39	0.165	-0.27926	0.04772
otherrace	0.076542	0.067218	1.14	0.255	-0.05524	0.208321
parnohs	0.057992	0.071418	0.81	0.417	-0.08202	0.198004
parunknown	-0.28701	0.105754	-2.71	0.007	-0.49433	-0.07968
parsomecol~e	0.029687	0.0505	0.59	0.557	-0.06932	0.12869
parassocdeg	0.044248	0.06311	0.7	0.483	-0.07948	0.167973
parbach	-0.06006	0.045896	-1.31	0.191	-0.15004	0.029919
pargraddeg	-0.13236	0.052128	-2.54	0.011	-0.23456	-0.03017
paronenative	-0.16854	0.071507	-2.36	0.018	-0.30873	-0.02835
parnonative	-0.02565	0.05849	-0.44	0.661	-0.14032	0.089014
age	0.081426	0.020954	3.89	0	0.040348	0.122505
agesqr	-0.00114	0.000343	-3.31	0.001	-0.00181	-0.00046
lnfaminc04	-0.00811	0.018091	-0.45	0.654	-0.04358	0.027357
atdeg6	0.083978	0.035396	2.37	0.018	0.014585	0.15337
fullmonths	0.025433	0.001339	18.99	0	0.022807	0.028058
hrswk06	-0.00037	0.001031	-0.36	0.717	-0.00239	0.001647
netcst35	2.84E-05	3.56E-06	7.97	0	2.14E-05	3.54E-05
_cons	7.36927	0.373154	19.75	0	6.637716	8.100824

SOURCE: Beginning Postsecondary Survey

TABLE C8
Regression results for OLS model, with dependent variable the log of the total accumulated loan amount, restricted to students with loans at two-year colleges

lncumuln09	Coef.	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	-0.10213	0.084888	-1.2	0.229	-0.2686	0.064344
privfp2yr09	0.540174	0.059995	9	0	0.42252	0.657828
privnp2yr09	0.342137	0.128663	2.66	0.008	0.08982	0.594455
black	-0.2411	0.068457	-3.52	0	-0.37535	-0.10685
hisp	-0.05692	0.085511	-0.67	0.506	-0.22461	0.110775
asian	-0.28341	0.159982	-1.77	0.077	-0.59714	0.030329
otherrace	-0.12023	0.102679	-1.17	0.242	-0.32159	0.081135
parnohs	-0.03592	0.079971	-0.45	0.653	-0.19275	0.12091
parunknown	0.02649	0.109357	0.24	0.809	-0.18797	0.240946
parsomecol~e	0.037161	0.065323	0.57	0.569	-0.09094	0.165265
parassocdeg	0.100484	0.094858	1.06	0.29	-0.08554	0.286507
parbach	-0.05736	0.072261	-0.79	0.427	-0.19907	0.08435
pargraddeg	0.12736	0.085267	1.49	0.135	-0.03986	0.294576
paronenative	0.032695	0.088652	0.37	0.712	-0.14116	0.206547
parnonative	-0.04792	0.098691	-0.49	0.627	-0.24146	0.145624
age	0.092012	0.020223	4.55	0	0.052353	0.13167
agesqr	-0.00126	0.000336	-3.75	0	-0.00192	-0.0006
lnfaminc04	-0.00193	0.020682	-0.09	0.926	-0.04249	0.038625
atdeg6	0.031825	0.051314	0.62	0.535	-0.0688	0.132456
fullmonths	0.030749	0.001982	15.51	0	0.026862	0.034637
hrswk06	0.002706	0.001305	2.07	0.038	0.000147	0.005265
netcst35	3.81E-05	6.57E-06	5.8	0	2.52E-05	0.000051
_cons	6.482772	0.368988	17.57	0	5.75916	7.206385

SOURCE: Beginning Postsecondary Survey

TABLE C9
Regression results for logit model, with dependent variable whether the student took
out more than $40,000 in loans (1=yes)

massivedebt09	Odds Ratio	Robust Standard Error	Z	P>z	[95% Conf.	Interval]
cadummy	0.715506	0.203333	-1.18	0.239	0.409938	1.248844
pub2yr09	0.158688	0.042796	-6.83	0	0.093538	0.269216
publt2yr09		(omitted)				
privfp4yr09	2.523656	0.649256	3.6	0	1.524204	4.178469
privfp2yr09	0.708025	0.249251	-0.98	0.327	0.355136	1.411571
privfplt2yr09	0.048151	0.043348	-3.37	0.001	0.008248	0.281121
privnp4yr09	3.830208	0.515524	9.98	0	2.942087	4.986424
privnp2yr09	0.827097	0.451048	-0.35	0.728	0.284029	2.408515
privnplt2yr09		(omitted)				
black	1.197797	0.26415	0.82	0.413	0.777442	1.845433
hisp	0.500609	0.141535	-2.45	0.014	0.287635	0.871274
asian	0.519012	0.18194	-1.87	0.061	0.26109	1.03173
amerind	0.885126	0.623867	-0.17	0.863	0.222357	3.52339
pinh	4.596877	3.367141	2.08	0.037	1.093883	19.31767
otherrace	0.708544	0.321638	-0.76	0.448	0.291052	1.724894
multirace	1.312133	0.33065	1.08	0.281	0.800718	2.150185
parnohs	1.665595	0.808459	1.05	0.293	0.64329	4.312529
parunknown	0.180954	0.125885	-2.46	0.014	0.046282	0.707504
parvoced	1.547259	0.421939	1.6	0.109	0.90665	2.640501
parlt2yr	0.870946	0.173785	-0.69	0.489	0.589042	1.287764
parassocdeg	1.487254	0.289438	2.04	0.041	1.015618	2.177908
par2yrnodeg	1.046174	0.297691	0.16	0.874	0.598953	1.827321
parbach	0.99294	0.161323	-0.04	0.965	0.722151	1.365269
parmasters	0.792905	0.157232	-1.17	0.242	0.537563	1.169534
parfirstprof	0.908734	0.294031	-0.3	0.767	0.481971	1.713376
pardoctoral	0.423569	0.141555	-2.57	0.01	0.220018	0.815438
paronenative	0.927268	0.200801	-0.35	0.727	0.606564	1.417535
parnonative	1.255564	0.323857	0.88	0.378	0.757324	2.081593
age	0.773685	1.008487	-0.2	0.844	0.060122	9.956189
agesqr	1.004995	0.034304	0.15	0.884	0.939961	1.074529
lnparinc06	0.904919	0.115188	-0.78	0.433	0.705115	1.161342
atdeg6	2.367992	0.340848	5.99	0	1.785906	3.139798

SOURCE: Beginning Postsecondary Survey

TABLE C10
Regression results for logit model, with dependent variable whether the student took out more than $40,000 in loans (1=yes), restricted to four-year colleges

massivedebtdummy09	Odds Ratio	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	0.626396	0.155411	-1.89	0.059	0.38518	1.018673
privfp4yr09	4.460419	1.051082	6.35	0	2.810561	7.078779
privnp4yr09	2.953731	0.4418	7.24	0	2.203199	3.959934
black	1.107086	0.209849	0.54	0.591	0.763547	1.605194
hisp	0.447765	0.115127	-3.13	0.002	0.270516	0.74115
asian	0.457808	0.157313	-2.27	0.023	0.233449	0.897791
otherrace	1.359799	0.32837	1.27	0.203	0.847077	2.182863
parnohs	1.051654	0.397578	0.13	0.894	0.501275	2.206329
parunknown	0.249029	0.151634	-2.28	0.022	0.075501	0.821388
parsomecol~e	1.277713	0.231522	1.35	0.176	0.895768	1.822514
parassocdeg	1.439522	0.292349	1.79	0.073	0.966829	2.143318
parbach	0.860873	0.154115	-0.84	0.403	0.606116	1.222709
pargraddeg	0.595182	0.115689	-2.67	0.008	0.406627	0.871169
paronenative	0.935277	0.216773	-0.29	0.773	0.593819	1.47308
parnonative	1.291085	0.274675	1.2	0.23	0.850872	1.95905
age	1.333068	0.125899	3.04	0.002	1.107801	1.604141
agesqr	0.995923	0.001556	-2.62	0.009	0.992878	0.998976
lnfaminc04	0.953448	0.061618	-0.74	0.461	0.840014	1.082199
atdeg6	1.205909	0.188047	1.2	0.23	0.888341	1.637002
fullmonths	1.069614	0.007295	9.87	0	1.055412	1.084008
hrswk06	0.993665	0.004533	-1.39	0.164	0.98482	1.002589
netcst35	1.000055	1.06E-05	5.21	0	1.000035	1.000076

SOURCE: Beginning Postsecondary Survey

TABLE C11
Regression results for logit model, with dependent variable whether the student took
out more than $40,000 in loans (1=yes), restricted to two-year colleges

massivedebtdummy09	Odds Ratio	Std. Err	z	P>z	[95% Conf.	Interval]
cadummy	0.626396	0.155411	-1.89	0.059	0.38518	1.018673
privfp4yr09	4.460419	1.051082	6.35	0	2.810561	7.078779
privnp4yr09	2.953731	0.4418	7.24	0	2.203199	3.959934
black	1.107086	0.209849	0.54	0.591	0.763547	1.605194
hisp	0.447765	0.115127	-3.13	0.002	0.270516	0.74115
asian	0.457808	0.157313	-2.27	0.023	0.233449	0.897791
otherrace	1.359799	0.32837	1.27	0.203	0.847077	2.182863
parnohs	1.051654	0.397578	0.13	0.894	0.501275	2.206329
parunknown	0.249029	0.151634	-2.28	0.022	0.075501	0.821388
parsomecol~e	1.277713	0.231522	1.35	0.176	0.895768	1.822514
parassocdeg	1.439522	0.292349	1.79	0.073	0.966829	2.143318
parbach	0.860873	0.154115	-0.84	0.403	0.606116	1.222709
pargraddeg	0.595182	0.115689	-2.67	0.008	0.406627	0.871169
paronenative	0.935277	0.216773	-0.29	0.773	0.593819	1.47308
parnonative	1.291085	0.274675	1.2	0.23	0.850872	1.95905
age	1.333068	0.125899	3.04	0.002	1.107801	1.604141
agesqr	0.995923	0.001556	-2.62	0.009	0.992878	0.998976
lnfaminc04	0.953448	0.061618	-0.74	0.461	0.840014	1.082199
atdeg6	1.205909	0.188047	1.2	0.23	0.888341	1.637002
fullmonths	1.069614	0.007295	9.87	0	1.055412	1.084008
hrswk06	0.993665	0.004533	-1.39	0.164	0.98482	1.002589
netcst35	1.000055	1.06E-05	5.21	0	1.000035	1.000076

SOURCE: Beginning Postsecondary Survey

Appendix D: Results of Statistical Models on Wage Premiums

See Appendix B for a description of the data and models used in this analysis.

TABLE D1
Summary statistics of the variables used in the wage premium regressions, ACS 2009–11

Variable	Obs.	Mean	Std. Dev.	Min	Max
Annual wage	285,594	63,807	58,854	1,016	410,627
Age	285,594	44	11	25	64
Age squared	285,594	2,015	939	625	4,096
Male	285,594	0.569	0.495	0	1
Married, spouse present	285,594	0.601	0.490	0	1
Married, spouse absent	285,594	0.026	0.158	0	1
Separated	285,594	0.023	0.151	0	1
Divorced	285,594	0.110	0.313	0	1
Widowed	285,594	0.013	0.112	0	1
Single	285,594	0.227	0.419	0	1
Hispanic	285,594	0.186	0.389	0	1
White	285,594	0.464	0.499	0	1
African American	285,594	0.046	0.209	0	1
Asian	285,594	0.168	0.374	0	1
Other race	285,594	0.136	0.342	0	1
Citizenship status	285,594	0.841	0.365	0	1
Less than high school	285,594	0.121	0.327	0	1
High school	285,594	0.168	0.374	0	1
Some college	285,594	0.220	0.414	0	1
Associate degree	285,594	0.084	0.278	0	1
Bachelor's degree	285,594	0.248	0.432	0	1
Master's degree	285,594	0.106	0.307	0	1
Professional degree	285,594	0.031	0.173	0	1
Doctorate	285,594	0.022	0.146	0	1
Business	285,594	0.096	0.295	0	1
Computer science	285,594	0.017	0.129	0	1
Engineering	285,594	0.058	0.234	0	1
Liberal arts	285,594	0.056	0.229	0	1
Social science, law	285,594	0.077	0.267	0	1
Science, medicine	285,594	0.072	0.259	0	1
Education	285,594	0.022	0.146	0	1
Other race	285,594	0.008	0.090	0	1

TABLE D2
Wage premium regression estimates for women (underlying estimates used in Figures 5 and 6)

Variables	California			Rest of the Nation		
	1990	2000	ACS 2009-2011	1990	2000	ACS 2009-2011
Age	0.044	0.050	0.062	0.036	0.044	0.051
	(0.001)***	(0.001)***	(0.001)***	(0.000)***	(0.000)***	(0.000)***
Age squared	0.000	-0.001	-0.001	0.000	0.000	0.000
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Hispanic	-0.097	-0.129	-0.162	-0.061	-0.075	-0.074
	(0.004)***	(0.004)***	(0.005)***	(0.003)***	(0.002)***	(0.002)***
African American	-0.046	-0.070	-0.099	-0.049	-0.044	-0.076
	(0.005)***	(0.005)***	(0.007)***	(0.001)***	(0.001)***	(0.002)***
Asian	-0.057	-0.077	-0.077	0.025	0.026	0.041
	(0.004)***	(0.004)***	(0.005)***	(0.003)***	(0.003)***	(0.003)***
Other race	-0.150	-0.170	-0.158	-0.096	-0.085	-0.077
	(0.005)***	(0.004)***	(0.005)***	(0.003)***	(0.002)***	(0.003)***
Married, spouse present	0.017	0.030	0.056	-0.052	-0.019	0.024
	(0.003)***	(0.003)***	(0.004)***	(0.001)***	(0.001)***	(0.001)***
Married, spouse absent	-0.092	-0.064	-0.055	-0.075	-0.046	-0.021
	(0.010)***	(0.009)***	(0.011)***	(0.004)***	(0.004)***	(0.005)***
Separated	-0.055	-0.056	-0.046	-0.085	-0.074	-0.071
	(0.007)***	(0.007)***	(0.010)***	(0.003)***	(0.003)***	(0.004)***
Divorced	0.038	0.032	0.040	-0.015	-0.007	0.015
	(0.004)***	(0.004)***	(0.006)***	(0.002)***	(0.001)***	(0.002)***
Widowed	-0.023	-0.022	-0.023	-0.069	-0.044	-0.038
	(0.008)***	(0.009)**	(0.012)*	(0.003)***	(0.003)***	(0.004)***
Less than high school	-0.213	-0.263	-0.279	-0.198	-0.180	-0.224
	(0.005)***	(0.005)***	(0.007)***	(0.002)***	(0.002)***	(0.003)***
Some college	0.140	0.169	0.183	0.163	0.172	0.172
	(0.003)***	(0.004)***	(0.005)***	(0.001)***	(0.001)***	(0.002)***
Associate degree	0.204	0.249	0.306	0.261	0.276	0.303
	(0.004)***	(0.005)***	(0.007)***	(0.002)***	(0.001)***	(0.002)***
Bachelor's degree	0.391	0.503	0.573	0.464	0.520	0.568
	(0.004)***	(0.004)***	(0.005)***	(0.001)***	(0.001)***	(0.002)***
Master's degree	0.547	0.657	0.758	0.619	0.669	0.747
	(0.006)***	(0.006)***	(0.006)***	(0.002)***	(0.002)***	(0.002)***
Professional degree	0.680	0.768	0.959	0.755	0.845	1.103
	(0.013)***	(0.011)***	(0.012)***	(0.005)***	(0.004)***	(0.005)***
Doctorate	0.650	0.786	0.923	0.795	0.826	0.984
	(0.017)***	(0.013)***	(0.013)***	(0.006)***	(0.005)***	(0.005)***
Citizenship status	0.221	0.208	0.245	0.059	0.094	0.151
	(0.004)***	(0.004)***	(0.006)***	(0.003)***	(0.002)***	(0.003)***
Observations	159,742	189,104	123,102	1,239,460	1,578,474	1,051,136
R-squared	0.261	0.306	0.344	0.217	0.235	0.276

NOTE: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE D3
Wage premium regression estimates for men (underlying estimates used in Figures 5 and 6)

| Variables	California			Rest of the Nation		
	1990	2000	ACS 2009-2011	1990	2000	ACS 2009-2011
Age	0.058	0.056	0.074	0.064	0.053	0.071
	(0.001)***	(0.001)***	(0.001)***	(0.000)***	(0.000)***	(0.000)***
Age squared	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Hispanic	-0.186	-0.223	-0.228	-0.168	-0.166	-0.138
	(0.004)***	(0.004)***	(0.004)***	(0.002)***	(0.002)***	(0.002)***
African American	-0.196	-0.212	-0.230	-0.195	-0.171	-0.199
	(0.005)***	(0.005)***	(0.008)***	(0.001)***	(0.001)***	(0.002)***
Asian	-0.179	-0.192	-0.195	-0.099	-0.097	-0.081
	(0.004)***	(0.004)***	(0.005)***	(0.003)***	(0.003)***	(0.003)***
Other race	-0.225	-0.238	-0.234	-0.199	-0.173	-0.145
	(0.004)***	(0.003)***	(0.005)***	(0.002)***	(0.002)***	(0.003)***
Married, spouse present	0.236	0.224	0.223	0.223	0.222	0.227
	(0.003)***	(0.003)***	(0.004)***	(0.001)***	(0.001)***	(0.001)***
Married, spouse absent	-0.068	-0.024	0.000	0.033	0.026	0.088
	(0.008)***	(0.007)***	(0.010)	(0.004)***	(0.003)***	(0.004)***
Separated	0.085	0.049	0.058	0.078	0.054	0.071
	(0.008)***	(0.008)***	(0.012)***	(0.003)***	(0.003)***	(0.004)***
Divorced	0.092	0.077	0.110	0.076	0.060	0.078
	(0.005)***	(0.005)***	(0.007)***	(0.002)***	(0.002)***	(0.002)***
Widowed	0.111	0.057	0.101	0.095	0.066	0.093
	(0.016)***	(0.016)***	(0.020)***	(0.006)***	(0.005)***	(0.007)***
Less than high school	-0.181	-0.202	-0.216	-0.199	-0.172	-0.181
	(0.004)***	(0.004)***	(0.005)***	(0.001)***	(0.001)***	(0.002)***
Some college	0.112	0.154	0.197	0.132	0.147	0.165
	(0.003)***	(0.003)***	(0.005)***	(0.001)***	(0.001)***	(0.001)***
Associate degree	0.152	0.214	0.265	0.167	0.187	0.224
	(0.004)***	(0.005)***	(0.006)***	(0.002)***	(0.001)***	(0.002)***
Bachelor's degree	0.367	0.493	0.565	0.408	0.468	0.542
	(0.003)***	(0.004)***	(0.005)***	(0.001)***	(0.001)***	(0.002)***
Master's degree	0.484	0.666	0.790	0.481	0.584	0.713
	(0.005)***	(0.006)***	(0.006)***	(0.002)***	(0.002)***	(0.002)***
Professional degree	0.785	0.865	1.055	0.851	0.932	1.118
	(0.009)***	(0.010)***	(0.012)***	(0.004)***	(0.004)***	(0.004)***
Doctorate	0.565	0.757	0.900	0.585	0.682	0.848
	(0.009)***	(0.010)***	(0.011)***	(0.004)***	(0.004)***	(0.004)***
Citizenship status	0.214	0.192	0.220	0.070	0.100	0.145
	(0.004)***	(0.004)***	(0.005)***	(0.003)***	(0.002)***	(0.003)***
Observations	242,335	273,472	162,485	1,843,363	2,133,542	1,280,689
R-squared	0.346	0.349	0.391	0.268	0.263	0.300

NOTE: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE D4
Wage premium regression estimates including dummies for broad fields of study

Variable	Coefficient	Variable	Coefficient
Age	0.065	Less than high school	-0.227
	(0.001)***		(0.004)***
Age squared	-0.001	Some college	0.19
	(0.000)***		(0.003)***
Sex	0.22	Associate degree	0.286
	(0.002)***		(0.005)***
Hispanic	-0.198	Business	0.594
	(0.003)***		(0.005)***
African American	-0.167	Computer science	0.753
	(0.006)***		(0.011)***
Asian	-0.2	Engineering	0.731
	(0.004)***		(0.007)***
Other race	-0.204	Liberal arts	0.44
	(0.004)***		(0.007)***
Married, spouse present	0.149	Social science, law	0.533
	(0.003)***		(0.006)***
Married, spouse absent	-0.022	Science, medicine	0.624
	(0.008)***		(0.006)***
Separated	0.002	Education	0.353
	-0.008		(0.010)***
Divorced	0.085	Other	0.459
	(0.005)***		(0.015)***
Widowed	0.04	Observations	240,353
	(0.011)***	R-squared	0.332
Citizenship status	0.253		
	(0.004)***		

NOTE: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

TABLE D5
Wage premium regression estimates including dummies for two-digit major field of study

Variable	Coefficient	Variable	Coefficient
Age	0.064 (0.001)***	Engineering	0.753 (0.008)***
Age squared	-0.001 (0.000)***	Engineering technologies	0.578 (0.024)***
Sex	0.223 (0.002)***	Linguistics, foreign languages	0.476 (0.024)***
Hispanic	-0.199 (0.003)***	Family, consumer sciences	0.381 (0.018)***
African American	-0.168 (0.006)***	English language, literature, composition	0.465 (0.014)***
Asian	-0.209 (0.004)***	Liberal arts, humanities	0.414 (0.013)***
Other race	-0.206 (0.004)***	Biology, life sciences	0.564 (0.012)***
Married, spouse present	0.148 (0.003)***	Mathematics, statistics	0.677 (0.023)***
Married, spouse absent	-0.022 (0.008)***	Interdisciplinary, multidisciplinary studies	0.525 (0.028)***
Separated	0 (0.008)	Physical fitness, parks, recreation, leisure	0.369 (0.023)***
Divorced	0.085 (0.005)***	Philosophy, religious studies	0.297 (0.027)***
Widowed	0.039 (0.011)***	Physical sciences	0.587 (0.015)***
Citizenship status	0.255 (0.004)***	Psychology	0.474 (0.012)***
Less than high school	-0.226 (0.004)***	Criminal justice, fire protection	0.491 (0.017)***
Some college	0.19 (0.003)***	Public affairs, policy, social work	0.462 (0.020)***
Associate degree	0.286 (0.005)***	Social sciences	0.58 (0.009)***
Agriculture	0.446 (0.023)***	Fine arts	0.427 (0.011)***
Environment, natural resources	0.46 (0.023)***	Medical, health sciences and services	0.772 (0.009)***
Architecture	0.58 (0.021)***	Business	0.607 (0.005)***
Communications	0.531 (0.011)***	History	0.499 (0.019)***
Computer, information sciences	0.754 (0.011)***	Observations	239,781
		R-squared	0.334
Education administration, teaching	0.354 (0.010)***		

NOTE: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Predicted annual wages for California workers with a bachelor's degree by college major and wage percentile, 2009–11
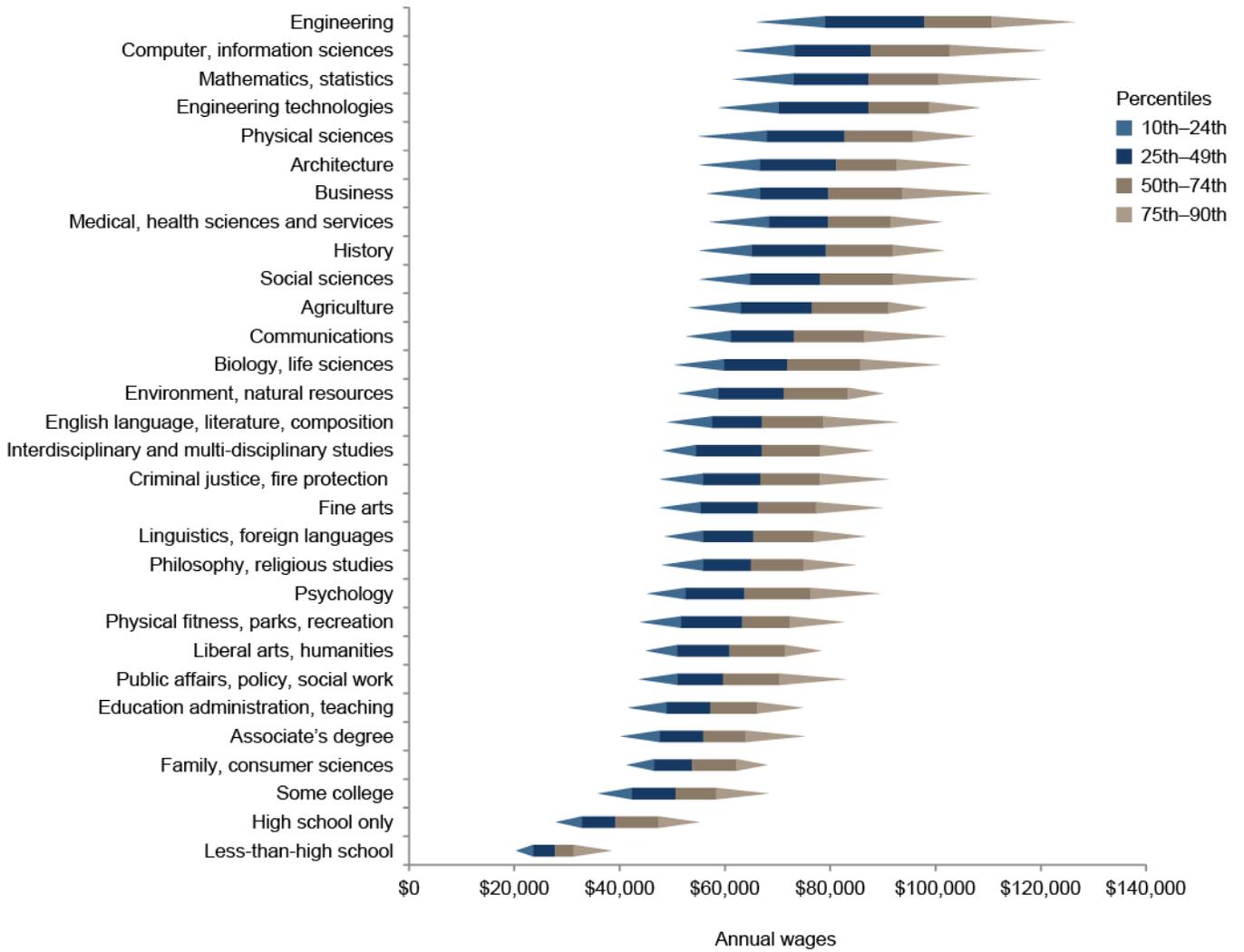
TABLE D6
Grouping of majors into broad fields

Two-Digit Major Field of Study	Broad Field of Study
Communications	Business
Communication technologies	Business
Business	Business
Computer, information sciences	Computers
Education administration, teaching	Education
Engineering	Engineering
Engineering technologies	Engineering
Mathematics, statistics	Engineering
Architecture	Liberal arts
Area, ethnic, civilization studies	Liberal arts
Linguistics, foreign languages	Liberal arts
English language, literature, composition	Liberal arts
Liberal arts, humanities	Liberal arts
Philosophy, religious studies	Liberal arts
Theology, religious vocations	Liberal arts
Fine arts	Liberal arts
Agriculture	Natural science, medicine
Environment, natural resources	Natural science, medicine
Biology, life sciences	Natural science, medicine
Physical fitness, parks, recreation, leisure	Natural science, medicine
Physical sciences	Natural science, medicine
Nuclear, industrial radiology, biological technologies	Natural science, medicine
Transportation sciences, technologies	Natural science, medicine
Medical, health sciences and services	Natural science, medicine
Cosmetology services, culinary arts	Other
Family, consumer sciences	Other
Library science	Other
Military technologies	Other
Interdisciplinary, multidisciplinary studies (general)	Other
Construction services	Other
Electrical, mechanic repairs and technologies	Other
Precision production, industrial arts	Other
Law	Social science, law
Psychology	Social science, law
Criminal justice, fire protection	Social science, law
Public affairs, policy, social work	Social science, law
Social sciences	Social science, law
History	Social science, law

SOURCE: Pew Research Center (2011). Appendix II to Chapter 5, p. 113.

TABLE D7
Work-life earnings and net lifetime pay of workers with a bachelor's degree relative to a high school diploma

	Full-time year-round workers	People with earnings but working less than full-time year-round	All people with earnings
A. **Work-life earnings of a worker with a baccalaureate in**			
Engineering	2,273,365	784,679	2,173,595
Computers	2,208,616	681,287	2,067,963
Business	1,960,714	666,013	1,660,186
Social science, law	1,856,514	631,703	1,488,192
Science, medicine	1,844,815	851,002	1,545,398
Liberal arts	1,675,524	612,626	1,282,627
Other	1,597,859	545,806	1,234,034
Education	1,360,999	548,205	1,074,315
B. **Work-life earnings of a high school graduate**	985,895	372,502	780,947
C. **Tuition and fees of attending a four-year public college**	52,800	52,800	52,800
D. **Forgone earnings**	81,312	27,240	51,620
E. **Net payoff (A-B-C-D)**			
Engineering	1,153,357	332,137	1,288,228
Computers	1,088,609	228,745	1,182,597
Business	840,707	213,471	774,819
Social science, law	736,507	179,161	602,826
Science, medicine	724,807	398,460	660,032
Liberal arts	555,517	160,084	397,260
Other	477,852	93,264	348,667
Education	240,991	95,663	188,948

SOURCE: Authors' analysis of ACS 2009–11 multiyear file.

NOTE: Based on discounted synthetic work-life earnings estimates.

Appendix E: Loan Default Rates at California Institutions

The U.S Department of Education releases official two-year cohort default rates once per year by state, institution, and type. The most recent cohort default rates available are for fiscal year (FY) 2010. A school's cohort default rate is the percentage of its federal student loan borrowers who enter repayment within the cohort FY (denominator) and default (or meet other specified condition) (numerator) within the cohort default period. The 10 schools with the highest default rates in FY 2010 included four for-profit institutions and six public institutions. The top 10 California private for-profit institutions have higher default rates than the top 10 private non-profit institutions. The top 10 California community colleges with the highest default rates differed greatly in numbers of students in repayment and default. The 10 public four-year universities with the highest loan default rates were all but one of the CSU campuses, and they had significantly lower default rates than all the other types of institutions.

TABLE E1
Top 10 Default Rates: All California Schools

Name	Type	Default rate (%)	Students in repayment	Students in default
Hartnell Community College	Public	31.5	38	12
John Wesley International Barber & Beauty College	Private for-profit	28.7	16	5
Palladium Technical Academy	Private for-profit	28.5	84	24
Pacific Coast Trade School	Private for-profit	26.4	117	31
Lassen College	Public	26.3	114	30
West Hills Community College	Public	25.8	174	45
California Nurses Educational Institute	Private for-profit	25.0	8	2
Palomar College	Public	24.6	235	58
Cerro Coso Community College	Public	24.2	33	8
Antelope Valley College	Public	23.7	1,320	313

SOURCE: U.S. Department of Education, "Two-year Official Cohort Default Rates for Schools."

TABLE E2
Top 10 Default Rates: California Private Schools

	Name	Default rate (%)	Students in repayment	Students in default
Private for-profit	John Wesley International Barber & Beauty College	28.7	16	5
	Palladium Technical Academy	28.5	84	24
	Pacific Coast Trade School	26.4	117	31
	California Nurses Educational Institute	25.0	8	2
	Summit College	22.0	1,221	269
	Mojave Barber College	21.6	37	8
	InfoTech Career College	21.6	143	31
	Empire College	21.5	297	64
	Bridges Academy of Beauty	21.0	6	1
	University of Antelope Valley	20.5	676	139
Private non-profit	NTMA Training Centers of Southern California	17.3	518	90
	Community Christian College	16.6	23	4
	Pacific States University	15.3	4	1
	Claremont School of Theology	15.1	33	5
	Center for Employment Training	14.7	2,129	314
	Lincoln University	14.2	25	4
	School of Urban Missions	13.3	45	6
	World Mission University	12.5	3	1
	Patten University	11.3	158	18
	Franciscan School of Theology	11.1	7	1

SOURCE: U.S. Department of Education, "Two-year Official Cohort Default Rates for Schools."

TABLE E3
Top 10 Default Rates: California Private Schools with More Than 500 Students in Repayment

Name	Default rate (%)	Students in repayment	Students in default
Summit College	22.0	1,221	269
University of Antelope Valley	20.5	676	139
NTMA Training Centers of Southern California	17.3	518	90
Carrington College California	16.7	5,232	878
Milan Institute	16.6	683	114
Le Cordon Bleu College of Culinary Arts	16.2	1,375	223
Four-D College	16.0	622	100
California Culinary Academy	15.7	514	81
Kaplan College	15.6	1,357	212
California College San Diego	15.3	514	79

SOURCE: U.S. Department of Education, "Two-year Official Cohort Default Rates for Schools."

TABLE E4
Top 10 Default Rates: California Public Schools

	Name	Default rate (%)	Students in repayment	Students in default
Public two-year	Hartnell Community College	31.5	38	12
	Lassen College	26.3	114	30
	West Hills Community College	25.8	174	45
	Palomar College	24.6	235	58
	Cerro Coso Community College	24.2	33	8
	Antelope Valley College	23.7	1,320	313
	San Jose City College	22.5	111	25
	Yuba College	22.1	203	45
	Gavilan College	21.7	124	27
	College of the Redwoods	21.1	477	101
Public four-year	California State University, Monterey Bay	7.2	888	64
	California State University, East Bay	7.1	2,317	166
	California State University Channel Islands	7.1	603	43
	California State University - Sacramento	6.5	4,775	315
	California State University, Northridge	6.3	5,720	363
	Humboldt State University	6.2	1,630	102
	California State University, Stanislaus	6.1	1,529	94
	University of California, Merced	6.1	324	20
	California State University, Fresno	6.0	3,212	195
	California State University, Fullerton	5.7	4,618	267

SOURCE: U.S. Department of Education, "Two-year Official Cohort Default Rates for Schools."

TABLE E5
Top 10 Default Rates: California Public Schools with More than 500 Students in Repayment

Name	Default rate (%)	Students in repayment	Students in default
Antelope Valley College	23.7	1,320	313
Fresno City College	21.1	927	196
Butte College	20.1	1,009	203
Victor Valley Community College	20.0	608	122
American River College	18.1	1,089	198
City College of San Francisco	17.3	841	146
San Joaquin Delta College	16.2	665	108
Long Beach City College	15.8	645	102
Woodland Community College	15.8	531	84
Santa Barbara City College	14.7	788	116

SOURCE: U.S. Department of Education, "Two-year Official Cohort Default Rates for Schools."

Appendix F: National and State Policy Environments

National Policy Environment

Congressional Regulations

Congress has played an important role in regulating higher education institutions. Many of the initial rules and regulations introduced in the early 1990s related to for-profit education institutions—including the 85/15 Rule, the 50 Percent Rule, and the ban on incentive compensation—originated in Congress.

Higher Education Act (HEA)

The Higher Education Act (HEA), originally passed in 1965 and reauthorized in 1968, 1971, 1972, 1976, 1980, 1986, 1992, 1998, and 2008, allocates funding to colleges and universities. Most federal financial aid is available through Title IV funds of the HEA, which authorizes programs that provide federal student financial aid to support student attendance at institutions that meet certain requirements. Current authorization for the programs in the HEA expires at the end of 2013. Before each reauthorization, Congress amends additional programs, changes the language and policies of existing programs, or makes other changes. Hearings and bills concerning the regulation of for-profit higher education have been conducted by committees in both houses of Congress. Congress has historically achieved these regulations when the HEA has been up for reauthorization, including the passage of the 85/15 Rule, the 50 Percent Rule, the ban on incentive compensation, and the creation of the IPEDS data system.

1992 Reauthorization

The 1992 reauthorization of the HEA came after multiple reports of fraud and impropriety at for-profit higher education institutions. During the late 1980s and into the 1990s, the then-named General Accounting Office (GAO), now the Government Accountability Office, Congress, and the Office of the Inspector General at the U.S. Department of Education conducted investigations of student aid programs. All three agencies found evidence of extensive fraud and abuse, and some of the worst examples were found at private for-profit schools (CRS 2005[8]). These reports of fraud led to major regulations in the 1992 HEA reauthorization, including the 85/15 Rule, the 50 Percent Rule, and the ban on incentive compensation. The 85/15 Rule was deemed necessary to protect against fraud and abusive practices at private for-profit institutions, as well as to ensure that for-profit schools were not receiving all of their funds from federal financial aid (CRS 2005). It was modeled after a rule already in place that did not permit veterans to enroll in programs in which more than 85 percent of the revenue was raised by federal financial aid. In 1998, Congress replaced the 85/15 Rule with the 90/10 Rule, reducing the percentage of funding private for-profit schools had to receive from non-federal sources from 15 percent to 10 percent. The 1992 authorization also banned incentive compensation for enrolling students and included a rule that no more than 50 percent of education had to be delivered on campus.

Department of Education Regulations

The U.S. Department of Education also has authority to regulate postsecondary institutions. To participate in federal financial programs, all postsecondary institutions must meet requirements for loan default rates.

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[8] Skinner, Rebecca. 2005. "Institutional Eligibility and the Higher Education Act: Legislative History of the 90/10 Rule and Its Current Status." In CRS Report for Congress. Available at www.policyarchive.org/handle/10207/1904.

Students are required to repay federal loans, regardless of program completion or employment status. Borrowers enter repayment when they graduate, withdraw from school, or do not enroll as at least half-time students (Federal Student Aid 2010). Direct loans have a six-month grace period before repayment begins. Borrowers with subsidized loans do not have to pay interest during the grace period, but borrowers with unsubsidized loans are required to do so.

The U.S. Department of Education tracks repayment and default rates for each institution. The official cohort default rate is the percentage of students who enter repayment and default for each FY. Subsidized and Unsubsidized Direct Stafford loans are included in the cohort default rate, but borrowers' PLUS and Perkins loans are not. It is important to note that the cohort default rate is calculated by the number of borrowers, not the number of loans. A single borrower could take out multiple loans but is only counted once. Schools with a cohort default rate of 25 percent or higher for three consecutive years are at risk of losing eligibility for the Direct Loan Program, the FFEL Program, and/or the Pell Grant Programs (U.S. Department of Education, 2012a). Upon release of the official three-year 2009 cohort default rates, only four institutions were subject to losing federal eligibility, and none are located in California (U.S. Department of Education 2012a). Additionally, schools with an official default rate exceeding 40 percent for one year are also at risk of losing eligibility for the Direct Loan and/or FFEL programs (U.S. Department of Education 2012a). In FY 2009, only two institutions were at risk, and neither is located in California (U.S. Department of Education 2012a).

Gainful Employment Rule

In July 2010, the Department of Education introduced the Gainful Employment Rule, which requires career colleges to adequately prepare graduates for employment in a recognized occupation or lose eligibility to participate in federal financial aid programs. While the Gainful Employment Rule also pertains to certificate programs at private non-profit and public institutions, it mainly focuses on for-profit institutions. The June 2, 2011, press release about the specifics of the rule repeatedly cited concerns of student debt and financial aid at for-profit institutions. It stated, "While many career college programs are helping to prepare America's workforce for the jobs of the future, far too many students at these schools are taking on unsustainable debt in exchange for degrees and certificates that fail to help them get the jobs they need or were promised" (Department of Education 2011). Only institutions receiving Title IV funds are subject to the Gainful Employment Rule.

The Gainful Employment Rule requires schools to meet at least one of three metrics. The first metric is to have at least 35 percent of students repaying their loans. The second metric is to have a typical graduate's estimated annual loan payment not exceed 12 percent of total income. The third metric is to have the estimated annual loan payment of a typical graduate below 30 percent of discretionary income. Discretionary income is defined as adjusted gross income, subtracting the poverty guidelines for family size. The repayment rate includes both students who completed the program and those who did not, while the debt-to-earnings ratios include only students who completed the program of study (U.S. Department of Education 2012a).

In June 2012, the Department of Education published the names of the institutions at risk for violating the Gainful Employment Rule. While no restrictions will actually take effect until 2015, the published information provides ways for schools to improve (Department of Education 2012a). Only 93 schools, a total of 5 percent of all schools, failed to meet any of the three requirements (Department of Education 2012a). However, in July 2012, an appeals court judge voided the 35-percent gainful employment requirement on the grounds of its being arbitrarily developed. The Department of Education is currently considering whether to appeal the ruling or develop a new measure that meets the judge's requirements.

State Attorneys General

Attorneys general from several states have pursued lawsuits against institutions for deceptive or unfair business practices. The Florida State Attorney General has filed lawsuits against Education Management Corporation, Corinthian Colleges, Kaplan University, University of Phoenix, Career Education Corporation, and other for-profit institutions. Attorneys general from California, New York, Kentucky, Massachusetts, Illinois, and North Carolina have also filed multiple lawsuits.

California Policy Environment

Fifteen California community colleges do not participate in federal loan programs: Barstow, Cerro Coso, Chaffey, Columbia, Crafton Hills, Imperial Valley, Lake Tahoe, Merced, Modesto, Mt. San Jacinto, Oxnard, Palo Verde, Porterville, San Bernardino Valley, and Taft (The Institute for College Access and Success 2012a). Reasons for not participating include a fear that offering federal loans opens up the possibility of having a federal loan cohort default rate that exceeds the federal and state maximum, which might result in losing access to Pell Grant and Cal Grant programs. However, in order to be subject to sanctions, schools must have at least 40 percent of students taking on federal loans, which is not the case at any California community college. Another reason California community colleges could choose not to offer federal loan programs is that students eligible for financial aid often receive Board of Governor (BOG) waivers that fully cover fees and Cal Grants B to cover living expenses, which limits the need to take out federal loans.

California Regulations

In addition to federal regulations, California institutions are subject to state oversight. For-profit institutions are also overseen by the Bureau of Private Postsecondary Education (BPPE).

California State Legislature

In 2011, California began using the federal default rate to determine institution eligibility for Cal Grants. Institutions with more than 40 percent of enrolled students receiving federal student loans had to maintain a federal cohort default rate below 24.6 percent to maintain eligibility. For the 2011–12 school year, 76 schools lost eligibility. No new students could receive Cal Grants to attend ineligible institutions. Students already receiving Cal Grants at these schools have one more year of eligibility at a reduced amount, but they cannot renew the subsequent year.

In 2012, California Senate Bill 1016 tightened Cal Grant restrictions by reducing the required cohort default rate to 15.5 percent and added a requirement that schools must maintain a graduation rate of 30 percent or higher. The California Student Aid Commission uses graduation rates available through the federal IPEDS data system, which reports the information institutions provide to the U.S. Department of Education. This graduation rate is within 150 percent of normal time to degree, which is three years for a two-year program or six years for a four-year program. Institutions failing to meet both or either of these requirements lose eligibility to enroll new Cal Grant students for two years.

For the 2012–13 school year, 154 institutions lost Cal Grant eligibility, affecting an estimated 14,500 students. These institutions comprise 35 percent of previously eligible Cal Grant institutions, and 4.2 percent of the 341,925 students received Cal Grants in 2011–12.[9] Of these schools, 137 are for-profit institutions, and the rest are private non-profit institutions. All UC, CSU, and California community college schools met the requirements. The California community colleges listed in Table E4 did not have to meet the requirements

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[9] The number 341,925 is from the California Student Aid Commission publication "Cal Grants by Legislative District," available at www.csac.ca.gov/pubs/forms/grnt_frm/2011-12_calgrantsbycalegislativedistrict.pdf.

because less than 40 percent of their students received federal loans. Currently enrolled students at the 154 ineligible institutions were granted a reduced $7,380 Cal Grant for one year but will not be able to renew for the 2013–14 school year. No new students can receive Cal Grants at the ineligible institutions.

Bureau for Private Postsecondary Education

California for-profit institutions are also subject to oversight from the BPPE. The BPPE operates within the Bureau of Consumer Affairs and oversees all private postsecondary institutions in California. The BPPE website publishes a School Performance Fact Sheet, School Catalog, and Annual Report for each of 1,258 institutions that enrolled 278,446 students in the 2010 reporting year (BPPE n.d.).

Officially, the BPPE oversees all for-profit schools and has the authority to discipline institutions with an accusation, citation and fine, letter of public reprimand, probation, or revocation or suspension of operation. However, the bureau and its previous incarnation as the Bureau of Private Postsecondary and Vocational Education (BPPVE) have faced criticism for weak oversight. The BPPVE even referenced the *Sacramento Bee*'s charge of being "a passive consumer-protection agency that does little to monitor schools" in its 2005 Initial Report (BPPVE 2005). In the past two years, the BPPE has taken only 11 disciplinary actions, including five citations and five formal accusations. Only one institution, Sunny College in Upland and Victorville, surrendered its approval to operate, on August 23, 2012.

Recent changes to the BPPE are under way. On September 26, 2012, Governor Brown signed into law AB 2296, which increased restrictions on for-profit institutions. AB 2296 requires the BPPE to publish a Student Performance Fact Sheet that includes information on a school's accreditation, salary data, graduate employment and wages, and cohort default rates for federal financial aid programs. AB 2296 also changes the definition of graduate employment in the field to mean working at least 17.5 hours a week in a position for 13 weeks (California Legislative Information 2012). Institutions are also required to document the information on the Student Performance Fact Sheet for five years and make it available to the BPPE upon request (California Legislative Information 2012).

All of the information is self-reported by each institution and is not verified by the BPPE (BPPE, n.d.). The BPPE also posts a disclaimer on its website stating, "Neither the California Department of Consumer Affairs, the Bureau, nor any of the sources of information shall be responsible for any errors or omission, or for the use or results obtained from the use of this information" (BPPE n.d.).

Lawsuits

In addition to legislative action, institutions have faced lawsuits from the state attorney general and city attorneys, as well as class-action lawsuits.

California State Attorney General

The California State Attorney General has pursued lawsuits against for-profit institutions. In October 2009, then-state Attorney General Brown and 11 other attorneys general reached a voluntary settlement with Student Loan Xpress, which ran the Silver State Helicopters School in Nevada. At its peak, Silver State Helicopters had 32 campuses in 17 states and enrolled 2,700 students at $70,000 annual tuition. Student Loan Xpress agreed to forgive $112.7 million of student debt for helicopter instruction the students never received, restructure approximately $174 million based on the number of Federal Aviation Administration certifications each student received, and pay $125,000 for the state's legal expenses (Office of California Attorney General 2009). Each student averaged $46,016 in debt forgiven. In February 2008, Silver State

Helicopters filed for bankruptcy and closed its campus. Student Loan Xpress closed its headquarters in 2009 but is still operating as a subsidiary of CIT Group (Bagley 2008).

In August 2011, California State Attorney General Kamala Harris filed a joint complaint with state attorneys general from Florida, Illinois, and Indiana against Education Management Corporation, alleging it paid commissions for student recruitment, which is illegal under the federal HEA. Harris is suing for all state financial aid the company received from Cal Grants since 2003, in addition to $10,000 per false claim (Perez 2011). The suit is still pending in U.S. District Court.

California City Attorneys

California state law permits city attorneys to act as the state attorney general and bring lawsuits on behalf of their jurisdictions. In December 2011, Securities Exchange Commission (SEC) filings by the Education Management Corporation included a statement of an investigation by the San Francisco City Attorney of the Art Institute of California (U.S. Securities and Exchange Commission 2011).

Class-Action Lawsuits

In August 2011, Career Education Corporation agreed to a $40 million settlement for inflating job placement statistics for graduates of the California Culinary Academy (San Francisco County Superior Court 2011). Career Education Corporation is based in Illinois but operates schools in 25 states and online.

Accrediting Agencies

The regional and national accrediting agencies constitute the third important regulatory body. Receiving accreditation is a precondition for an institution's eligibility to participate in federal and state financial aid programs. Regional accreditors, one type of accrediting agency, include Western Accreditation for Schools and Colleges (WASC), Southern Accreditation for Schools and Colleges (SACS), and four others. There are also 30 national agencies, which are mainly used by for-profit institutions. One policy concern is "shopping" by institutions among regional accreditors for the most accommodating regulations (Kinser 2006). The founder of the University of Phoenix first tried to be accredited by WASC, but the owner deemed their staff "vindictive" and said they were "sabotaging his chances," so he established the corporation in Arizona in order to be under the North Central Association Commission on Accreditation and School Improvement (Kinser 2006). The North Central accreditors have the fewest and vaguest requirements, and more than half of the for-profit campuses they have accredited are located outside the region (Kinser 2006).

WASC

California institutions are under the jurisdiction of WASC, which accredits postsecondary institutions in California, Hawaii, Guam, American Samoa, and other Pacific islands. Its three accrediting committees are responsible for different sectors of institutions. The Accrediting Commission for Schools covers all institutions below the postsecondary level; the Accrediting Commission for Community and Junior Colleges is responsible for all two-year institutions; the Accrediting Commission for Senior Colleges and Universities evaluates all public and private colleges above the two-year level (The Western Association of Schools and Colleges 2008).

WASC uses the U.S. Department of Education cohort default rates in determining accreditation renewal. As of September 2012, the Accrediting Commission for Senior Colleges and Universities had accredited 160 universities, including two accredited on probation and two accredited on warning. An accreditation on warning reflects that an institution does not meet one or more accreditation standards. The standards

include the institution's capability for promoting retention and graduation rates, both in curricula and organizational structure (WASC 2008).

As of September 2012, the two California schools accredited with warning were private non-profit Hope International University in Fullerton and private non-profit Phillips Graduate Institute in Chatsworth. An institution labeled accredited on probation is noncompliant with at least one accreditation standard and could be required to undergo periodic reporting and inspection by WASC. As of September 2012, the two California schools accredited with probation are for-profit Trident University International in Cypress and private non-profit Patten University in Oakland.

National Accrediting Agencies

For-profit and private educational institutions in California can also pursue accreditation by national agencies. In September 2011, the Accrediting Council for Independent Colleges and Schools denied accreditation to the Institute of Medical Education in San Jose, California, because of insufficient administrative capacity in reliably reporting student placement rates, grading methods, academic progress, and other metrics (ACICS 2011).

Savings Plans, Including Prepaid College Tuition Programs

Most states offer savings plans to help families save for education. These plans, also known as 529 plans, are available in two forms: prepaid tuition plans and college savings plans. College savings plans vary by state but usually have earnings free from federal and state taxes as long as the funds are used for qualified higher education expenses, including tuition, room and board, fees, and supplies (SEC 2012). Prepaid tuition plans guarantee future college tuition at a fixed amount. These prepaid plans are usually restricted to certain public universities within the state of investment and residence (SEC 2012). They generally have restricted enrollment periods and age restrictions. While most states have sponsored college savings plans, only 17 have prepaid tuition plans. The premise of these programs is to purchase tuition units to guarantee future tuition at present-day prices. As of September 2012, 11 states offered prepaid tuition programs. Table F1 lists the state prepaid tuition programs, including those that have ceased operations.

TABLE F1
Prepaid State College Savings Plans

State	Plan	Year began	Administrative agency	Restrictions
Alabama	Prepaid Affordable College Tuition (PACT)	1990	Alabama State Treasurer	Closed to new enrollments in 2009
Colorado	CollegeInvest Prepaid Tuition Funds	1997	Colorado Student Obligation Bond Authority and State Treasurer	Closed to new enrollments as of August 2002
Florida	Florida Prepaid College Program	1987	Florida Prepaid College Board	Different plans for different college types, invested funds can be used at private or out of state schools
Illinois	College Illinois!	1998	Illinois Student Assistance Commission	Can be used at any eligible university or college
Kentucky	Kentucky's Affordable Prepaid Tuition (KAPT)	2001	KAPT Board of Directors and the State Treasurer	Two-year waiting period for funds to be available for use, can be used at any accredited institution
Maryland	Maryland Prepaid College Trust	1998	Maryland Higher Education Investment Board	Guaranteed by Maryland Legislature, can be used at any accredited institution
Massachusetts	U Plan	1995	Massachusetts Educational Financing Authority	Can be used at any of 80 Massachusetts schools; if not used there, returned funds with annual interest at CPI rate
Michigan	Michigan Education Trust	1988	MET Board of Directors and Michigan Department of Treasury	Three available plans: full benefits, limited benefits, community college only for use at a Michigan school
Mississippi	Mississippi Prepaid Affordable College Tuition (MPACT)	1997	Mississippi Treasury Department	Can be used at out-of-state or private institutions, but only up to average tuition and fees at a Mississippi public university
Nevada	Nevada Prepaid Tuition Program	1998	Board of Trustees of College Savings Plan of Nevada and State Treasurer's Office	Can be used at out-of-state or private institutions; five different plans by university type
New Mexico	Education Plan's Prepaid Tuition Program	2000	The Education Trust Board of New Mexico	Closed to new enrollments in 2004
South Carolina	South Carolina Tuition Prepayment Plan (SCTPP)	1998	State Treasurer	Closed to new enrollments in 2008
Tennessee	Tennessee's BEST Prepaid College Tuition Plan	1997	Treasury Department and Board	Closed to new enrollments in 2010
Texas	Texas Tuition Promise Fund	1996	Texas Prepaid Higher Education Tuition Board	Tuition units for any two-year or four-year public Texas university; value can be transferred to a public or out-of-state school
Virginia	Virginia Prepaid Education Program	1996	Virginia College Savings Plan Board	Restricted to newborns through 9th graders to be used at public Virginia schools, can be applied toward private or out-of-state schools without guaranteed full tuition coverage

State	Plan	Year began	Administrative agency	Restrictions
Washington	Guaranteed Education Tuition	1998	Washington State Higher Education Coordinating Board	Guarantees future value of University of Washington or Washington State tuition; value can be applied to other schools
West Virginia	West Virginia Prepaid College Plan	1998	State Treasurer's Office under authority of West Virginia College Prepaid Tuition Board of Trustees	Closed to new enrollments in 2003

SOURCE: University of Houston Law Center, Institute for Higher Education Law and Governance.

Prepaid college tuition programs have been most effective in states with multiple options for parents (e.g., Florida) and those that have remained solvent by assuming sound accounting forecasts (e.g., Maryland).

Locked-In Tuition

One of the difficulties students in California have faced in the recent past is the rapidly escalating, yet unpredictable cost of attending college. Financial planning for students and their families is especially difficult in an environment with little or no stability. One option, used by only a few institutions in the United States, is to offer students set four-year tuition. Students must pay a premium over the standard freshman tuition to enjoy this promise. In Oklahoma, for example, public universities are required to offer new students the option of paying a four-year guaranteed tuition rate. This guaranteed tuition cannot, by legislation, exceed the non-guaranteed rate by more than 15 percent.[10] From the colleges' point of view, a locked-in tuition program should come with some sort of funding guarantee from the state, as increases in tuition have been a direct response to reduced state funding.

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[10] See www.okhighered.org/studies-reports/tuition-impact-analysis-09-10.pdf for details.

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