

Technical Appendices

Defunding Higher Education What Are the Effects on College Enrollment?

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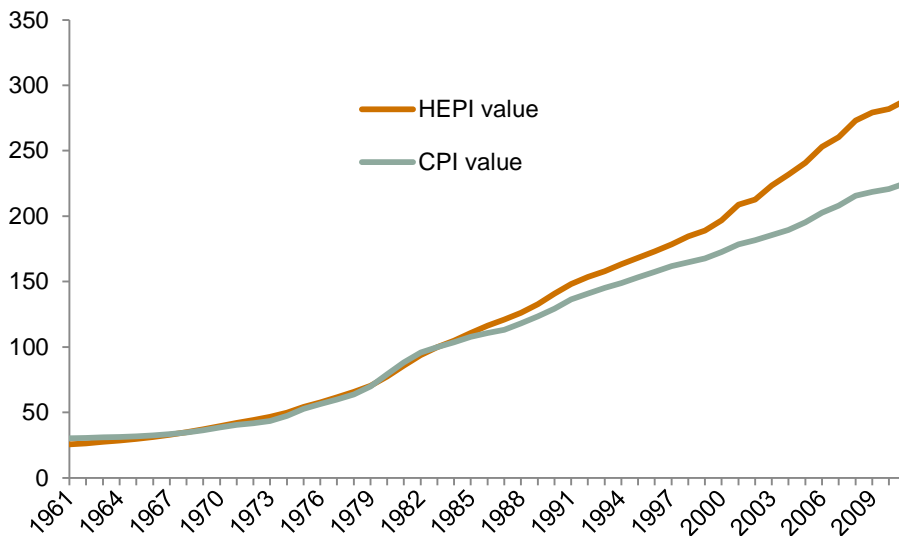
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Appendix A: Adjustments for Inflation

We have chosen to report most of the fiscal values in our study in real dollars (adjusted for inflation). Following the lead of the Delta Cost Project, we use the Consumer Price Index to adjust for inflation.¹ Specifically, we use the CPI-U series. We chose not to use the Higher Education Price Index (HEPI) because our goal is to compare higher education funding, expenditures, and tuition broadly, including with other functions of government. Moreover, one criticism of the HEPI is that it is self-referential, meaning that higher education inflation is determined partly by actions taken by higher education institutions. The HEPI and the CPI show notable differences beginning in the mid-1980s, with the HEPI showing much higher levels of inflation. This means that if we had used the HEPI rather than the CPI, our estimates of the decline in higher education funding would have been even greater.

Table A1
The HEPI shows higher levels of inflation than the CPI



NOTE: 1983 = 100.

¹ Donna M. Desrochers and Jane V. Wellman, "Trends in College Spending 1999–2009," Delta Cost Project, 2011 (available at www.deltacostproject.org/analyses/delta_reports.asp).

Appendix B: Tuition and Fee Comparisons

Using information on tuition and fee data reported to IPEDS, we have compared tuition at UC and CSU campuses with that of other large U.S. public universities (those with 10,000+ students). Those comparisons show much faster increases in tuition at UC and CSU.

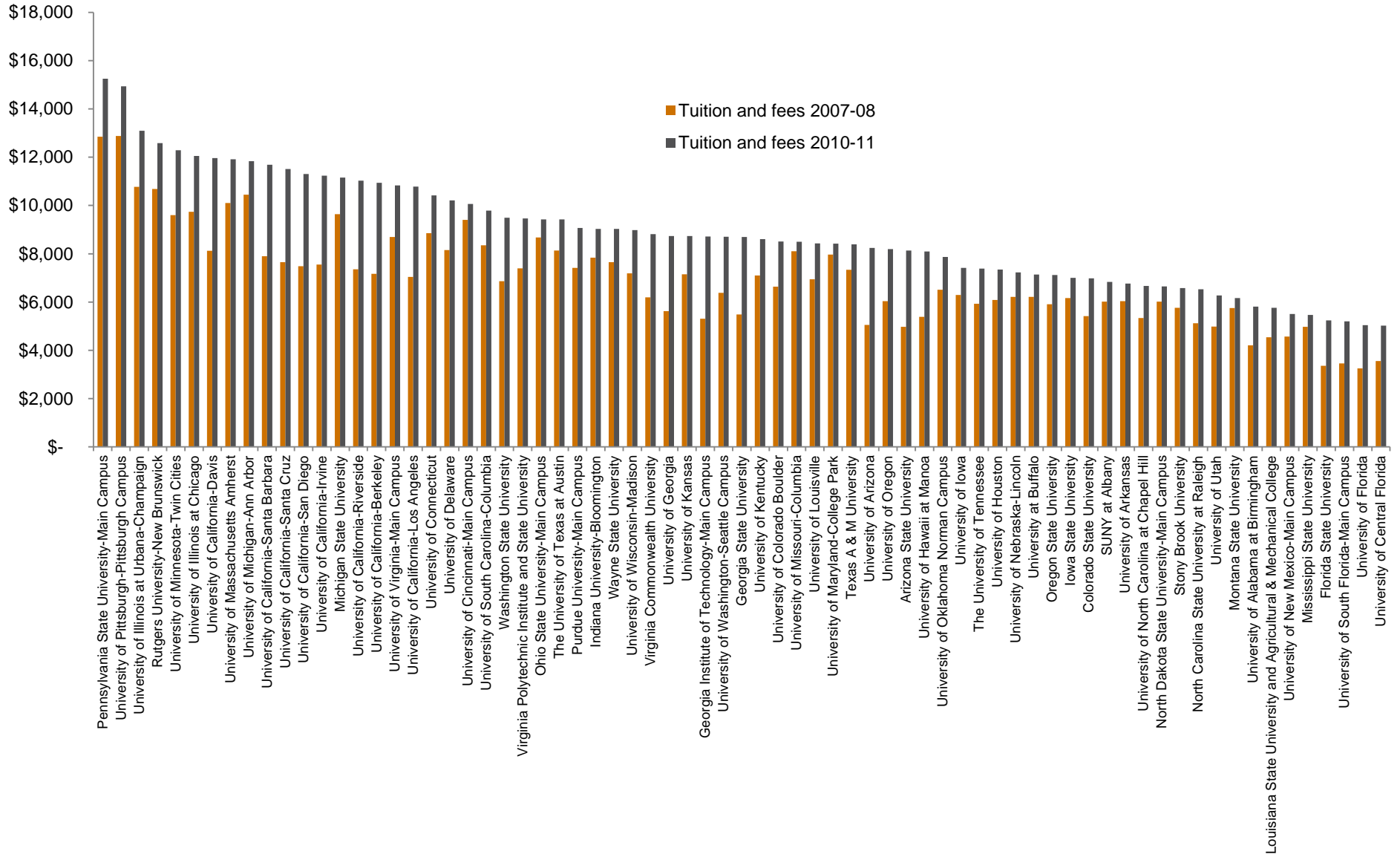
Table B1
Comparison of tuition and fees at UC and other research universities

	2007–08	2010–11	Change
Average for UC campuses	\$7,533	\$11,305	+50%
Rest of U.S. comparison campuses	\$6,899	\$8,526	+24%

Table B2
Comparison of tuition and fees at CSU and other Master’s colleges and universities

	2007–08	2010–11	Change
CSU campuses	\$3,494	\$5,139	+47%
Rest of U.S. comparison campuses	\$5,656	\$6,708	+19%

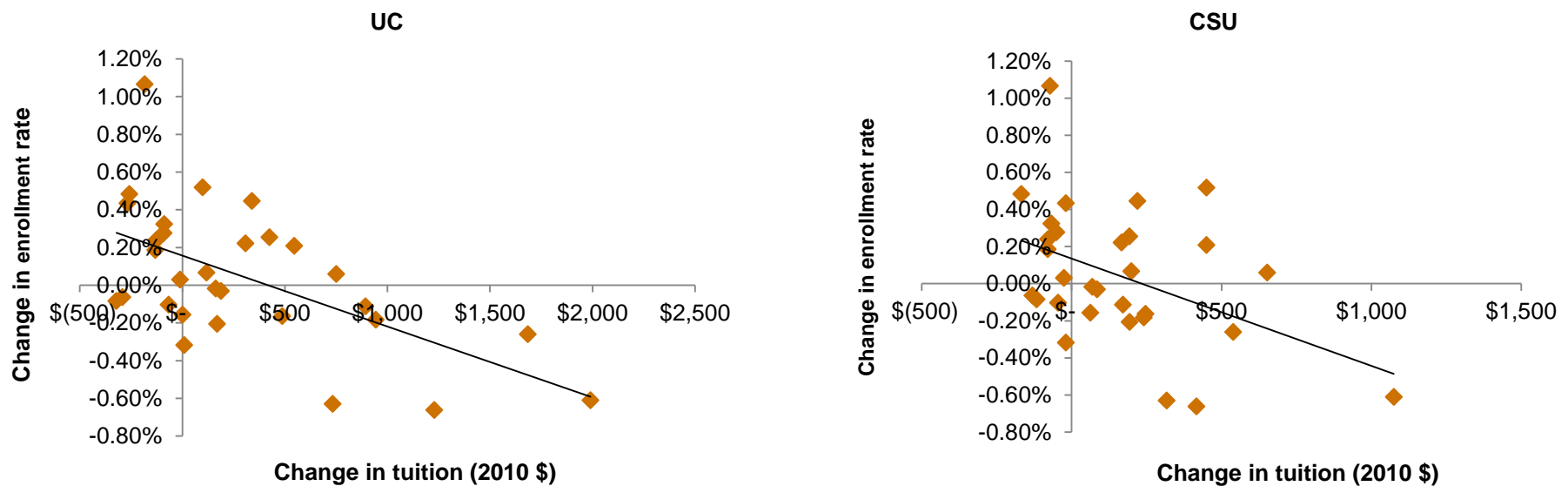
Figure B1
Tuition and fees at large public research universities in the United States



Appendix C: Changes in Tuition and Enrollment Rates

At California’s public universities, increases in tuition are strongly correlated with lowered enrollment rates. Figure C1 shows scatterplots and simple linear regressions between changes in tuition and changes in enrollment rates for UC and CSU. At both UC and CSU, the larger the tuition increase (in 2010 dollars), the lower the enrollment rate (the share of recent high school graduates enrolling in the university). The changes are estimated from 31 years of enrollment and tuition data. Correlations are similar when the analyses are restricted to a–g students, although the sample size is reduced as data on a–g graduates are available only beginning in 1985. For additional analyses that include data from other states and control for characteristics of high school graduates, contact the author.

Figure C1
Changes in enrollment rates versus changes in tuition, 1980–81 to 2009–10



SOURCE: Author’s analysis.

Appendix D: High School Graduates by Ethnicity and a–g Course Completion

For every ethnic group in the state, we see notable increases in the number and share of high school graduates who have completed the a–g curriculum. Although large gaps persist between ethnic groups, we see no evidence that high school students of any particular group, including African Americans and Latinos, have been discouraged from pursuing a college preparatory course of study even in the face of dramatic increases in college costs.

Table D1
Number of high school graduates and percentage completing a–g courses, by ethnicity, 1985 and 2010

	Number of public high school graduates		Percentage completing a–g curriculum	
	1985	2010	1985	2010
Gender				
Male	110,421	198,419	24.6	31.4
Female	115,027	206,568	26.4	39.7
Ethnicity				
Asian	17,898	41,267	41.1	60.3
African American	19,013	27,580	17.4	28.5
Filipino	4,483	12,276	31.1	47.6
Latino	41,958	174,088	15.5	26.5
American Indian	1,833	3,168	13.9	24.9
White	140,263	132,893	27.6	40.9
Multiracial		4,710		40.1
TOTAL	225,448	404,987	25.5	35.6

SOURCES: Author’s calculations based on CPEC online data system and CDE Dataquest.

NOTE: “Asian” includes Pacific Islanders.

Appendix E: Community College Enrollment by Ethnicity

Community colleges have the potential to be the great equalizer in higher education in California. Those colleges reflect the full diversity of California’s high school graduates. As shown in Table E1, Latino high school graduates are more likely than any other ethnic group in the state to enroll in a community college. Restricting the analysis to full-time students, we find that the Latino advantage disappears and that African Americans are less likely to enroll than other groups. Over the past five years, overall enrollment rates at community colleges have increased slightly, although an increasing share of those students attend part-time.

Table E1
Community college enrollment rates
of recent California public high school graduates, by ethnicity

Percentage of graduates enrolling at community colleges				
	Latino	White	Asian	African American
2006	35.5	30.4	35.2	38.9
2007	36.3	31.6	34.8	39.5
2008	37.6	32.8	35.0	39.1
2009	31.6	28.0	29.8	28.1
2010	39.2	32.3	33.1	31.5

Percentage of graduates enrolling at community colleges full-time				
	Latino	White	Asian	African American
2006	17.5	17.2	20.8	16.8
2007	16.1	15.2	18.1	13.8
2008	15.8	15.6	17.3	13.8
2009	14.2	15.1	16.2	10.9
2010	17.5	16.6	17.5	12.1

SOURCE: Author’s analysis of CPEC and CDE data.

NOTES: Data are restricted to California public high school graduates. Asian includes Pacific Islanders. Noncredit students are excluded. Data are adjusted for nonreporting by some colleges in certain years. For years with missing data, linear interpolations are used to estimate enrollment. For missing data in 2010, the last year of known data is used. Contact the author for details.



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