

Do Proprietary Institutions of Higher Education Generate Savings for States?

The Case of California, New York, Ohio, and Texas



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Executive Summary

According to Secretary Arne Duncan, “for-profit institutions play a vital role in training young people and adults for jobs [and] are critical to helping America meet the President’s 2020 goal.” To demonstrate one aspect of this vital role, in this study we focus on the high costs state taxpayers would incur if they had to enroll, in their two- and four-year public institutions, the undergraduate students served by proprietary colleges and universities in their state. We present calculations from academic year 2007-08 through 2011-12 of the financial implications to taxpayers in California, New York, Ohio, and Texas.

First, we calculate that almost 1.4 million full-time equivalent students were enrolled in proprietary two- and four-year colleges in these four states during these five academic years. We then calculate the potential costs to states of educating these students in broad-access public institutions rather than proprietary ones. Using average, non-capital, state and local appropriations as our measure of state support, we

estimate the total additional appropriations needed to educate the proprietary college students if they were enrolled in public institutions at nearly \$8.4 billion for the five year period.

We also examine the costs to the states through the lens of degree completion. In the four states, four-year proprietary institutions awarded approximately 156,000 bachelor’s degrees and two-year proprietary schools awarded about 242,000 associate’s degrees in the five academic years covered by this report. We estimate that across these four states, \$6.4 billion in state appropriations would have been needed to support the education of these bachelor’s graduates and \$4.6 billion to support the associate’s graduates. *Put another way, and looking only at the students in proprietary four-year institutions resident in these four states, if they had graduated from the least selective public campuses represented in our study, the states would have had to nearly double the current appropriations for these institutions.*

This study shows that there would be substantial fiscal costs if the proprietary sector shut down and the hundreds of thousands of students currently enrolled in these institutions sought access to public colleges and universities. This study also serves as a reminder to policy makers and state taxpayers that when comparing costs between public and proprietary institutions, it is important to consider not just the cost to students and their families represented by the tuition charged by each institution, but also the per-student public subsidy that supports the real cost of education.

Introduction

According to U.S. Secretary of Education Arne Duncan, “for-profit institutions play a vital role in training young people and adults for jobs. They are critical to helping America meet the President’s 2020 goal. They are helping us meet the explosive demand for skills that public institutions cannot always meet.”¹ We agree: The Obama Administration’s education goal for the United States to have the highest proportion of college graduates in the world by 2020² cannot be met in the absence of the proprietary sector.³ More importantly, the education agenda articulated by President Obama in his 2014 State of the Union address, calling for the expansion and improvement of job training programs at the nation’s institutions of higher education,⁴ is more likely to be fulfilled with the contribution of all

sectors of higher education. The burden cannot be borne solely by community colleges, many of which are still struggling from budgetary constraints as a result of the Great Recession and some of which are underperforming in terms of student completion and job training results.⁵ Consequently, we agree that proprietary institutions are essential to meeting the Obama Administration’s education and job training goals for higher education.

To demonstrate just how correct Secretary Duncan was in his observations about the vital role of proprietary institutions, we focused this study on the high costs that state taxpayers would incur if they had to subsidize the education in their public institutions of the additional hundreds of thousands of students currently served by proprietary colleges. We calculate for four states—California, New York, Ohio, and Texas—the financial implications to taxpayers if the proprietary sector was

¹ U.S. Education Secretary Arne Duncan Keynotes DeVry Policy Forum (May 11, 2010). Press release, DeVry, Inc. Retrieved from <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aloTQ.iS0JvE>.

² The White House. (n.d.). Building American skills through community colleges. Retrieved from <http://www.whitehouse.gov/issues/education/higher-education/building-american-skills-through-community-colleges>.

³ Throughout this study the for-profit higher education sector is referred to as the “proprietary,” that is, privately owned, sector.

⁴ Obama, B. (2014). Full transcript: Obama’s 2014 State of the Union Address. Retrieved from http://www.washingtonpost.com/politics/full-text-of-obamas-2014-state-of-the-union-address/2014/01/28/e0c93358-887f-11e3-a5bd-844629433ba3_story.html.

⁵ Klor de Alva, J., & Schneider, M. (2013). *What’s the value of an associate’s degree. The return on investment for graduates and taxpayers*. San Francisco: Nexus Research and Policy Center; Washington, DC: American Institutes for Research. Retrieved from http://nexusresearch.org/reports/valueof2yrdegree/Value_of_Associate_Degree.pdf.

not an available option for their residents.⁶ We analyze the financial costs of these enrollment shifts separately for two- and four-year institutions. Because students in proprietary institutions would likely be eligible for Pell Grants and other federal and state financial aid if they attended public institutions, we did not look at the federal taxes used to support these or the state financial aid programs. However, in some instances, proprietary institutions received some state appropriations, often as reimbursement for tuition and fees.⁷ We accounted for these existing funds by subtracting them from calculations of “additional appropriations” needed to accommodate in public institutions those students attending proprietary ones.

Our findings are based on estimates⁸ of (a) the number of students enrolled in two- and four-year proprietary institutions in the four states from academic year (“AY”) 2007–08 to 2011–12 and (b) how much each state would have had to appropriate to cover the costs of the education for these students had they enrolled in public institutions instead of proprietary ones. It is important to note that these costs do not include the construction of additional buildings or the expansion of technology platforms to fully accommodate online instruction. And while proprietary institutions tend to enroll a higher percentage of disadvantaged students than broad-access public institutions, this study focused solely on the analysis of average costs for the full-time equivalent (“FTE”) student.

⁶ The states were chosen for the size of their population, the variability of state appropriations per FTE student, and their geographic location (West, East, Midwest and South).

⁷ For details on the type of aid that is included here under state and local grants see the reporting form used for Finance Collection at private for-profit schools at https://surveys.nces.ed.gov/IPEDS/Downloads/Forms/package_7_19.pdf. For private for-profit schools, the definition in IPEDS is this: Grant monies provided by the state such as Leveraging Educational Assistance Partnerships (LEAP) (formerly SSIG’s); merit scholarships provided by the state; and tuition and fee waivers for which the institution was reimbursed by a state agency. Local government grants include scholarships or gift-aid awarded directly to the student. See <https://nces.ed.gov/ipeds/glossary/?charindex=5>.

⁸ These are estimates, rather than actual distinct student counts, because of the need to aggregate part- and full-time students.

How Many Students Attend Proprietary Institutions?

To estimate the public’s cost of educating students who are in proprietary institutions, we first calculated the number of FTE students enrolled in proprietary institutions in each state in the study. We obtained counts, as reported by the U.S. Department of Education’s Integrated Postsecondary Education Data System (“IPEDS”),⁹ of full- and part-time students in two- and four-year proprietary institutions in each state during each of the five academic years (from 2007–08 to 2011–12). We modified one aspect of these counts: For proprietary institutions that reported *all* of their students to IPEDS as full-time students, we counted *all* enrollments as part-time. This is a conservative approach, because some of these students are in fact full-time. However, we believe that treating all of these students as part-time more accurately reflects the typical attendance pattern in which most students are unlikely to remain in full-time status throughout their college careers.¹⁰ We converted this new count of part-time students in four-year proprietary institutions into FTE students using the IPEDS conversion factor of 0.392857¹¹ and the new count of part-time students in two-year proprietary institutions using the IPEDS conversion factor of 0.397058. To reach our total count of FTE students in two-year and four-year proprietary

⁹ IPEDS is the primary source for data on colleges, universities, and technical and vocational postsecondary institutions in the United States. See <http://nces.ed.gov/ipeds/>.

¹⁰ See National Student Clearinghouse Research Center–Signature Report #6, *Completing College: A National View of Student Attainment Rates–Fall 2007 Cohort*. Figure B. Six Year Outcomes by Starting Institution Type. Retrieved from http://nscresearchcenter.org/wp-content/uploads/NSC_Signature_Report_6.pdf (note that students at two-year proprietary institutions are more likely to be full-time students than their public college counterparts).

¹¹ National Center for Education Statistics. (n.d.). Glossary (calculation of FTE students [using fall student headcounts]). Retrieved from <http://nces.ed.gov/ipeds/glossary/index.asp?id=854>.

Table 1: Enrollment of FTE Students in Proprietary Institutions and Additional Appropriations Needed to Educate Students Enrolled in Proprietary Institutions, AY2007–08 to AY2011–12, by State

Four-Year Institutions		
State	Number of FTE Students in Proprietary Institutions	Additional Appropriations Needed
California	384,041	\$2,481,697,000
New York	144,724	\$1,036,968,100
Ohio	113,946	\$529,612,100
Texas	136,132	\$709,608,000
Total	778,843	\$4,757,885,200
Two-Year Institutions		
State	Number of FTE Students in Proprietary Institutions	Additional Appropriations Needed
California	229,547	\$1,607,946,800
New York	112,743	\$609,033,400
Ohio	126,996	\$624,162,600
Texas	120,950	\$790,390,900
Total	590,236	\$3,631,533,700

institutions, we added these results to the actual full-time counts provided by IPEDS and then subtracted any full-time students that were reclassified as part-time.¹²

State level enrollment data from IPEDS are limited in that many proprietary institutions operate large online programs and students enrolled in these are sometimes counted as enrolled in a central location regardless of where they actually reside. For example, all online students at Ashford University, no matter where they reside, are counted as enrolled in Iowa. Therefore, to more accurately count the FTE students of the proprietary institutions in each state, we asked nine proprietary education systems with large online student enrollments to provide us with the number of online students they enrolled in each of the five academic years *who had addresses in the four states, but under IPEDS had been reported as enrolled at a central location outside these states.* Table B.2 identifies the aggregate online annual FTE

student count for each state that was reported by the cooperating institutions.¹³

Using the “on-ground” (i.e., physical campus-based) and online numbers from IPEDS and the online numbers we requested, we estimated the number of FTE students in proprietary institutions at the associate’s and bachelor’s degree levels in each of the four states (Table 1).¹⁴

Among the four-year proprietary institutions (both on-ground and online), nearly 779,000 FTE students were enrolled in the four states during the five academic years. Of these, nearly half (384,000) were enrolled in California. New York was a distant second (with around 145,000), followed by Texas (more than 136,000) and Ohio (nearly 114,000).

¹² Using California as an example, Appendix A describes how we calculated the number of FTE students educated in proprietary institutions who resided in each state and how we estimated the costs.

¹³ This estimate is conservative because it includes only the FTE students of these nine systems and not any other proprietary schools that also report their online students as enrolled at a central location outside the four states.

¹⁴ We recognize that most awards at two-year proprietary institutions are certificates and not associate’s degrees and that even at four-year institutions, a significant percentage of awards are certificates. However, because of limitations on data regarding certificates, we focused solely on associate’s and bachelor’s degrees. This necessarily implies that the cost of the student shift analyzed in this study is understated.

To put the magnitude of these numbers in perspective, the nearly 779,000 FTE students enrolled over the five academic years in proprietary four-year institutions in these four states is equivalent **to the sum** of the fall 2012 undergraduate FTE enrollments of 9.7 UCAs (University of California–Los Angeles), 6 Stony Brook Universities, 2 Ohio State Universities (at Columbus), and 2.7 Universities of Texas (at Austin).

Remember: These are just the undergraduate degree seeking students. We did not count the tens of thousands on-ground or online students seeking certificates or master’s and doctoral degrees from proprietary institutions in or serving the four states.

Among the two-year proprietary institutions (both on-ground and online), more than half a million (590,000) FTE students were enrolled in the four states during the five academic years. California accounted for the largest number of enrollments—however, at approximately 39 percent, California’s share of the total two-year enrollment across the four states was substantially lower than its share among four-year schools (49 percent). Additionally, Ohio was the only state to enroll more students in two-year proprietary institutions than in their four-year counterparts.

Estimating State Appropriations

For the next step of our calculation, we estimated state appropriations devoted to students enrolled in public institutions. Our estimation of appropriations is based on a set of simple calculations, which is described in more detail in Appendix A. First, for four-year institutions in each state, we identified a set of broad-access, minimally competitive public institutions.¹⁵ Using IPEDS, we then calculated the average non-capital appropriations¹⁶ per FTE student for each of these schools in each of the five academic

years.¹⁷ Second, for two-year public institutions, we calculated the average appropriation per FTE student across all community colleges in each state for each of the same five years.

We recognize that public institutions in our sample, and in general, would not have the capacity to handle an influx of students the size of that contemplated in this study. Despite that, we excluded capital appropriations, conservatively assuming that states would have accommodated the increased enrollments without building additional campuses or increasing the physical capacity of current locations.

Finally, for each state, we multiplied the number of FTE students by the average per student appropriation for the set of schools in our sample for each of the five academic years. Based on changes in the Consumer Price Index (“CPI”), we converted the numbers for each state into constant 2013 dollars and then added them together to estimate the total additional appropriations needed to educate the students resident in each state who were enrolled in proprietary institutions during the five academic years.

Consistent with our conservative approach to this calculation, we also identified the total state appropriations that some proprietary institutions received for the benefit of individual students during each of the five academic years, by state and level of institution, and converted them into 2013 dollars.¹⁸ We then subtracted these figures from the total additional appropriations required to educate these students. We did this because we assumed that students who received appropriations at the proprietary institutions would likewise have received them at public institutions. Consequently, the public institutions would not need to provide those additional funds.¹⁹ The results are presented in Table 1.

¹⁵ These institutions are listed in Table B.1.

¹⁶ In the case of New York, we calculated state and local appropriations for two- and four-year institutions. Four-year institutions in the three other states reported no local appropriations.

¹⁷ See Table B.1 for annual appropriations per FTE student for each institution in our sample.

¹⁸ See footnote 7.

¹⁹ Table B.4 presents the amounts that we subtracted by state and type of institution.

To illustrate the logic of these calculations, consider California. If all 384,000 FTE students resident in the state who had enrolled in proprietary four-year institutions presented themselves on the doorstep of the state's broad-access institutions, we estimated that the state would have had to appropriate an additional \$2.48 billion over the five academic years, or more than \$496 million per year, to educate them. This is based on multiplying the specific annual appropriations per FTE student by the number of FTE students enrolled in proprietary institutions for each of the five academic years and then summing these annual estimates.²⁰ By comparison, New York would have had to appropriate more than an additional \$1 billion over the five academic years, or approximately \$200 million per year; Texas, nearly an additional \$710 million; and Ohio, more than an additional \$529 million.

If students who were enrolled in proprietary two-year institutions attended public two-year institutions, the additional state and local appropriations needed to educate them would also be high: California would have had to appropriate an additional \$1.6 billion over the five academic years (or \$320 million per year), New York and Ohio, approximately an additional \$120 million per year; and Texas, nearly an additional \$160 million per year.

These calculations are based on three key assumptions: That **all** students in the proprietary institutions

1. Would have chosen to enroll in degree programs at public institutions.
2. Would have been able to enroll in broad-access, minimally competitive four-year or two-year public institutions that offered programs identical or similar to those in the proprietary institutions and in a format matching the needs of mostly adult learners (e.g., evening classes and online courses).

3. Would have received the same average state or local appropriations per FTE student as allocated to the students enrolled in the broad-access four-year institutions and the two-year schools.

Of course, both students and states could choose different options. For instance, a state could turn away these hundreds of thousands of students due to lack of funds, but this would deviate from the nation's education goals and take away the many economic and social benefits that come with a citizenry that has advanced training and postsecondary education. The state could also choose to enroll these new students without increasing appropriations or increasing them only marginally—but that would lead to other consequences, such as lowering student success rates,²¹ offering fewer services or course offerings, and likely increases in tuition for all.²²

The Costs of Graduates

The estimated costs of educating students are based on the number of students enrolled annually. Examining degree completion is another way to measure added costs to states. Although graduation rates from broad-access institutions, both public and proprietary, are lower than those from more selective institutions, many students successfully earn a bachelor's or associate's degree.²³

As shown in Table 2, across these four states, four-year proprietary institutions awarded approximately 156,000 bachelor's degrees during the five academic

²¹ Klor de Alva, J., & Schneider, M. (2013). *What's the value of an associate's degree. The return on investment for graduates and taxpayers*. San Francisco: Nexus Research and Policy Center; Washington, DC: American Institutes for Research. Retrieved from http://nexusresearch.org/reports/valueof2yrdegree/Value_of_Associate_Degree.pdf.

²² Chakrabarti, R., Mabutas, M., & Zafar, B. (2012). *Soaring tuitions: Are public funding cuts to blame?* New York: Federal Reserve Bank of New York. Retrieved from http://libertystreeteconomics.newyorkfed.org/2012/09/soaring-tuitions-are-public-funding-cuts-to-blame.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+LibertyStreetEconomics+%28Liberty+Street+Economics%29.

²³ It is important to note that our data are not cohort based. Therefore, graduation rates cannot be computed from the data.

²⁰ Appendix A presents additional details about the calculations made for each state, using California as a specific example.

years; two-year proprietary schools awarded about 242,000 associate's degrees. Not surprisingly, the distribution of graduates by type of degree from proprietary schools across the four states mirrors enrollment patterns. For example, California residents graduating from four-year proprietary institutions accounted for the bulk of graduates from these institutions (more than 56 percent), followed at some distance by Texas (more than 15 percent). Among two-year schools, California accounted for the bulk of associate's degrees awarded by proprietary institutions (43 percent), followed by Ohio (more than 21 percent).

The significance of the number of graduates produced by the proprietary sector is made evident by the third column in Table 2. There we show both the total number of bachelor's degrees awarded by the least competitive four-year public institutions in the study and the total number of associate's degrees awarded by the public two-year institutions during the same five year period.

Because data are not available for us to measure exactly how long students at different institutions took to complete their degrees or how many credits a student actually earned at the institution from which he or she graduated, we made two countervailing assumptions.

- Following the federal government's guidelines in the Student-Right-To-Know and Campus Security Act of 1990,²⁴ we assumed that a bachelor's degree takes six years to complete and an associate's degree takes three. However, these measures are based on full-time attendance so to the extent that students attend part-time the calculation will underestimate the cost. Further, in proprietary institutions that indicated all students were full-time these were all treated as part-time students. So, all in all, this is a conservative assumption.
- Although we know that many students swirl through two or more institutions before earning a degree, we assumed that all credits earned were completed

at the institution from which students graduated. This, of course, inflates to an unknown degree the additional appropriations needed to graduate these students.

To estimate for each state the total appropriations supporting a graduate in broad-access, four-year institutions, we again turn to the average appropriations per FTE student per year across the set of schools noted in Table B.1. For each graduating class we added the average appropriations for the six years preceding the graduation date (for 2008 this includes AY2002-03 to AY2007-08) to determine the cost per degree. We then multiplied the cost per degree (all CPI adjusted to 2013 dollars) by the number of bachelor's degrees earned at the proprietary institutions in the corresponding year. We repeated this summation for each of the five graduating classes from AY2007-08 to AY2011-12. We added the five annual results to reach the total cost to support graduates earning bachelor's degrees (Table 2).

To estimate the added cost of associate's degrees in two-year public institutions, we repeated the process using three years (instead of six) and appropriations per FTE students for the public two-year colleges in the state. We computed costs for each academic year and multiplied that figure by the number of associate's degrees earned at the proprietary institutions in the corresponding year. We then added these annual results to reach the total state or local appropriations that would have been needed to cover the costs of graduates earning associate's degrees from proprietary colleges. These costs (converted to 2013 dollars) appear in Table 2.

Again, we also identified the total state and local appropriations that were received by proprietary institutions for the benefit of students each year, by state and type of institution, and converted these to constant 2013 dollars. Next, we took these figures for all the years that 2008-2012 graduates would have attended school and subtracted these numbers from the total additional appropriations needed to educate

²⁴ Codified in 20 U.S.C. § 1092; U.S. Public Law 101-542.

Table 2: Appropriations Needed to Pay for the Education of Graduates of Proprietary and Selected Public Institutions from 2008 to 2012

Four-Year Institutions				
State	Total Bachelor's Degrees Awarded by Proprietary Institutions	Equivalent State Cost of Graduates With Bachelor's Degrees From Proprietary Institutions	Total Bachelor's Degrees Awarded by Selected Public Institutions	State Cost of Graduates With Bachelor's Degrees From Selected Public Institutions*
California	87,935	\$4,043,897,200	69,840	\$3,311,732,500
New York	23,451	\$955,678,300	25,509	\$1,147,865,700
Ohio	20,234	\$606,157,800	36,417	\$1,135,314,000
Texas	24,139	\$795,623,600	30,327	\$1,011,125,300
Total	155,759	\$6,401,356,900	162,093	\$6,606,037,500
Two-Year Institutions				
State	Total Associate's Degrees Awarded by Proprietary Institutions	Equivalent State Cost of Graduates With Associate's Degrees From Proprietary Institutions	Total Associate's Degrees Awarded by Public Community Colleges	State Cost of Graduates With Associate's Degrees From Public Community Colleges**
California	104,153	\$2,243,357,500	423,819	\$9,453,588,800
New York	49,641	\$838,170,100	195,247	\$3,409,834,100
Ohio	52,195	\$799,752,700	89,876	\$1,465,768,900
Texas	35,764	\$715,052,700	226,732	\$4,657,494,900
Total	241,753	\$4,596,333,000	935,674	\$18,986,686,700

*For four-year institutions, the figures in this column represent the appropriations per FTE student multiplied by the number of actual graduates with bachelor's degrees from the least selective four-year institutions in this study, by state. Table B.1 lists the least selective four-year public institutions in this study.

**For two-year institutions, the figures in this column represent the state and local appropriations per FTE student multiplied by the number of graduates with associate's degrees from all two-year institutions in that state.

these graduates. For graduates with bachelor's degrees, we used data from AY2002–03 to AY2011–12; and for graduates with associate's degrees, we used data from AY2005–06 to AY2011–12.

The unit of analysis in Table 2 differs from that of Table 1. While Table 1 focuses on the number of FTE students per year, Table 2 focuses on the number of graduates per year. In our calculations, each graduate with a bachelor's degree is underwritten by six years of state appropriations and each graduate with an associate's degree is underwritten by three years of state appropriations. Thus, although the annual number of graduates is smaller than the annual number of FTE students, each graduate represents a larger subsidy.

Graduates With Bachelor's Degrees

As shown in Table 2, nearly 156,000 bachelor's degrees were awarded by proprietary institutions in the four states during the five academic years. If each graduate from a proprietary institution took six years to earn his or her bachelor's degree and was supported by state appropriations similar to those that each FTE student received at the public institutions in our sample, the states would have needed an additional \$6.4 billion in appropriations to educate these graduates—on top of the more than \$6.6 billion actually appropriated.

For California, the \$4.04 billion cost represents a 122-percent increase over the actual appropriations received by the broad-access public institutions in our sample over the five academic years. New York would have had to allocate more than \$950 million to support the nearly 23,500 additional graduates with bachelor's degrees from broad-access public institutions, representing an 83-percent increase over the actual

appropriations during the same period. Similarly, Texas would have had to allocate more than \$795 million to support the more than 24,000 additional graduates with bachelor's degrees from its broad-access public institutions, representing a 79-percent increase over the actual appropriations. And Ohio would have had to allocate nearly \$606 million to support more than 20,000 graduates with bachelor's degrees from broad-access public institutions, representing a 53-percent increase over the actual appropriations. *Overall, if all of the students who were enrolled in four-year proprietary institutions and were residents of these four states had graduated from the least competitive four-year public institutions in our study, the states would have had to nearly double their current appropriations for these institutions.*

Graduates With Associate's Degrees

Because on average associate's degrees take less time to earn than bachelor's degrees, the estimates of the additional appropriations that state and local governments would have to make to serve the number of graduates with associate's degrees from proprietary institutions are much lower—even though more students graduate with associate's degrees than bachelor's degrees. As shown in Table 2, we estimate that two-year proprietary institutions awarded more than 240,000 associate's degrees across the four states during the five academic years. Had the graduates from the proprietary institutions been enrolled in public community colleges, state and local governments would have had to appropriate nearly \$4.6 billion to account for the added demand for education. By state, this equates to a significant increase in additional appropriations: Ohio (55 percent), New York (25 percent), California (24 percent), and Texas (15 percent).

Conclusions

Tables 1 and 2 make clear that Secretary Duncan is correct: proprietary institutions “are critical to helping America meet the President’s 2020 goal . . . [and] are helping us meet the explosive demand for skills that public institutions cannot always meet.”²⁵ During the period studied the proprietary sector enrolled approximately 1.4 million FTE students in California, New York, Ohio, and Texas. In the sector’s absence, it would have cost these states nearly \$8.4 billion to educate these students had they chose to enroll in public institutions. Using a different metric, state taxpayers would have had to contribute almost \$11 billion to produce at public institutions the nearly 400,000 graduates who completed their studies at proprietary colleges and universities.

This study shows that there would be substantial fiscal costs if the proprietary sector shut down and the hundreds of thousands of students currently enrolled in these institutions sought access to public colleges and universities. Aside from fiscal costs, the absence of the proprietary sector would also hold

potential consequences for other stakeholders in these states. For example, taxpayers would likely enjoy fewer public services, as a result of higher appropriations for state colleges. College administrators would face dramatically lower rates of student performance, as a result of fewer or eliminated courses and programs and higher student-to-faculty ratios. And students would face significantly higher tuitions, as a result of declining state funds for higher education.²⁶

None of this is meant to serve as an argument for loosening regulations that are reasonably aimed at improving the performance of proprietary, independent, and public institutions. However, our hypothetical scenario and our very real numbers should caution state legislators, public officials, policy makers, college administrators, and taxpayers who believe that it is in the best financial interest of taxpayers to shift responsibility for the education of hundreds of thousands of students from the proprietary to the

²⁵ U.S. Education Secretary Arne Duncan Keynotes DeVry Policy Forum (May 11, 2010). Press release, DeVry, Inc. Retrieved from <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aloTQ.iS0JvE>.

²⁶ Chakrabarti, R., Mabutas, M., & Zafar, B. (2012). Soaring tuitions: Are public funding cuts to blame? New York: Federal Reserve Bank of New York. Retrieved from http://libertystreeteconomics.newyorkfed.org/2012/09/soaring-tuitions-are-public-funding-cuts-to-blame.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+LibertyStreetEconomics+%28Liberty+Street+Economics%29.

public sector. Furthermore, the public education sector is too frequently ill equipped and undercapitalized to handle such an influx.

In the absence of significant additional state and local appropriations, and in the absence of proprietary institutions, the United States is unlikely to achieve President Obama's 2020 education goal. In addition, this study serves as a reminder to policy makers that when comparing costs between public and proprietary institutions, it is important to consider not just the cost to students and their families represented by the tuition charged by each institution, but also the per-student public subsidy that supports the real cost of education.

Appendix A

How We Calculated Our Measures

To illustrate our calculations, we present the case of California using data from AY2011–12. We describe how we estimated (a) the number of students enrolled in proprietary institutions and (b) the appropriations using a sample of broad-access, four-year institutions and all public, two-year colleges in the state. We used this same process to generate estimates for New York, Ohio, and Texas.²⁷

Sample Institutions

For four-year institutions in California, we began with a set of five public institutions that were categorized as “Less Competitive” in *Barron’s Profiles of American Colleges 2013*.²⁸ The five broad-access, four-year public institutions in our sample are all part of the California State University (CSU) system: CSU–Bakersfield, Dominguez Hills, Fresno, Monterey Bay, and Northridge.²⁹ In the other states, we focused

²⁷ The spreadsheet with all calculations is available by request from the authors.

²⁸ Barron’s Educational Series, Inc. (2013). *Barron’s profiles of American colleges 2013*. Hauppauge, NY, p. 259.

²⁹ Table B.1 presents the list of the broad-access, four-year institutions that we used to generate average appropriations in each state.

on four-year institutions categorized by Barron’s as “Noncompetitive” and, where necessary because less selective institutions were not available, “Competitive.” Table B.5 offers definitions of Barron’s levels of competitiveness.

Among two-year institutions, we included all degree-granting community colleges in California.

Estimating the Full-Time Equivalent Number of Students Enrolled in Proprietary Institutions

We calculated the FTE student count in AY2011–12 for both two- and four-year proprietary institutions with campuses physically located in California using figures reported to IPEDS, with one adjustment. Some proprietary institutions report *all* their students to IPEDS as full-time students. For those institutions, we classified all enrollments as part-time. This conversion embodies a conservative approach because some of these students are in fact full-time, but we believe that treating them as part-time better reflects common attendance patterns. The reason for this is that the definition of full-time in IPEDS classifies students based on their first term, regardless of their attendance

Table A.1: Calculating FTE Students in Proprietary Institutions in California, AY2011–12

Type of Institution	Calculated FTE for “OnGround” Resident Students	Calculated FTE for Online Resident Students	Total Calculated FTE Students
Four-Year	71,578	19,411	90,989
Two-Year	47,426	8,521	55,947

status throughout their enrollment in that institution. However, most students at proprietary institutions do not attend full-time during their entire academic career. Therefore, while proprietary institutions originally reported 82,823 full-time and 26,126 part-time students, we reclassified 35,426 students from full-time status to part-time status (these are students who were classified as full-time in IPEDS but the institutions reported only full-time students and no part-time students). This results in 61,552 students labeled as part-time (leaving 47,397 as full-time). To convert these 61,552 part-time students into FTE students, we used the IPEDS conversion factor of 0.392857³⁰ (appropriate for four-year institutions) and added the results (24,181) to the adjusted full-time count (47,397), producing an estimated 71,578 FTE students in four-year proprietary institutions in AY2011–12.

Similarly, according to IPEDS, 83,767 students were enrolled in two-year proprietary institutions in California (74,876 reported as full-time and 8,891 as part-time). Again, following our full-time to part-time adjustment approach for schools that report *all* of their students as full-time, we recalculated the FTE student count based on 23,495 full-time and 60,272 part-time students. To convert these 60,272 part-time students to FTE students, we used the IPEDS two-year institution conversion factor of 0.397058 and added the results (23,931) to the adjusted full-time count (23,495), producing an estimated 47,426 FTE students in two-year proprietary institutions in AY2011–12.

These IPEDS counts are only for students enrolled in campuses physically located in California. As previously noted, many of the large proprietary systems report online students as enrolled in a central location. For

example, a student living in California but enrolled online in Ashford University will be included by IPEDS in Iowa’s count. To resolve this problem, we asked nine of the largest proprietary systems in the nation to provide us with the FTE count of online students resident in each of the four states.

We then added the IPEDS FTE student numbers and the FTE student counts provided by the proprietary systems to get a more accurate estimate of the number of California residents enrolled in proprietary institutions. Table A.1 illustrates the numbers from California. We repeated this process in the other three states during each of the five academic years.

State Appropriations

Here our goal was to estimate the additional state dollars that California would have had to appropriate to educate resident students enrolled in proprietary institutions in the state had such students attended broad-access public institutions in the state. Our approach is somewhat different between two- and four-year institutions, reflecting the far larger role that local appropriations play in financing two-year public institutions.

- **Four-Year Public Institutions:** Using data from IPEDS, we calculated total state³¹ appropriations for the five institutions in California. In AY2011–12, appropriations to these institutions totaled more than \$376 million. The total appropriations were divided by the IPEDS fall 2011 FTE student enrollment for these institutions (74,318). On average, California appropriated approximately \$5,100 per FTE student at broad-access institutions in AY2011–12. Adjusting by the CPI yielded an

³⁰ National Center for Education Statistics. (n.d.). Glossary (calculation of FTE students (using fall student headcounts)). Retrieved from <http://nces.ed.gov/ipeds/glossary/index.asp?id=854>.

³¹ Local appropriations for four-year public institutions were found only in New York and, consequently, do not affect appropriations per FTE student in the other three states.

Table A.2: Additional Appropriations Needed If California Residents Enrolled in Proprietary Colleges Had Attended Broad-Access, Public Institutions in California in AY2011–12*

Type of Institution	Estimated FTE Students in Proprietary Institutions	Appropriations Per FTE Student	Total Additional Appropriations Needed
Four-Year	90,989	\$5,300	\$484,358,600
Two-Year	55,947	\$6,800	\$379,152,700

*Calculations are not exact due to the rounding of all monetary figures.

estimated appropriation of \$5,300 per FTE student in 2013 dollars.³² Recall that capital appropriations are not included.

- **Two-Year Public Institutions:** Using data from IPEDS, we added all state and local appropriations for all public community colleges in California for AY2011–12 (nearly \$5.2 billion) and divided the total by the FTE student count in the 116 institutions from fall 2011 (approximately 804,948). This produced an estimate of \$6,400 in appropriations per FTE student. Adjusting by the CPI yielded an estimated appropriation of \$6,800 per FTE student in 2013 dollars.

Additional State Appropriations Needed

We now had an estimate of the FTE student enrollment in proprietary institutions in California and an estimate of what California appropriates per FTE student at two- and four-year institutions. Next, we estimated how much more the state would have had to appropriate to educate state residents who attended proprietary institutions if they had enrolled instead in public institutions.

We recognize that some of these students might not have enrolled in a public institution and others may have been denied admission due to overcrowding or limited state resources. Adjusting for those who would not have enrolled in public institutions is impossible. Therefore, for the purposes of this analysis, we estimated the cost to the state as if *all* proprietary students would have chosen to attend and would have been admitted to the broad-access public institutions in the state.

To estimate the additional appropriations, we multiplied the public appropriations per FTE student in AY2011–12 by the estimated FTE students enrolled in proprietary colleges in fall 2011 and adjusted the results to 2013 dollars. This resulted in an estimated additional cost to California of more than \$484 million to educate students that attended proprietary four-year institutions and an *additional cost* of approximately \$379 million to educate students that attended proprietary two-year institutions—a *one year total of \$863 million* (Table A.2).

For this calculation we also identified the total direct appropriations that proprietary institutions receive for the benefit of individual students each year, by state and type of institution, and converted these into 2013 dollars (see Table B.4).³³ We then subtracted these figures from the total additional appropriations needed to educate these students. We did this on the assumption that students who received state appropriations at the proprietary institutions would also have received them at the public institutions, had they attended. Consequently, the public institutions would not need to provide those additional funds.

We repeated this exercise for each of the five academic years and added them to produce the estimates for California (Table A.1).

³² All calculations are for AY2011–12, and all dollar figures were CPI adjusted to 2013 dollars and rounded to the nearest hundred.

³³ See footnote 7.

How Much More Would California Need to Appropriate for Graduates?

We also calculated the additional appropriations that state and local governments would have needed to make if students who graduated from proprietary institutions had graduated from public institutions.

We recognize that many students take longer than six years to graduate from four-year institutions and more than three years to graduate from two-year institutions. But using the official federal guidelines of six years to earn a bachelor's degree and three years to earn an associate's degree, we first estimated the cost for a student earning a bachelor's degree in the broad-access, public institutions in California by adding the weighted average public appropriations per FTE student for six years (from AY2006–07 to AY2011–12), which resulted in \$42,500. Second, to estimate the cost per student earning an associate's degree in two-year public institutions, we added the weighted average public appropriations per FTE student for three years (from AY2009–10 to AY2011–12), which resulted in \$20,900. These figures are reported in 2013 dollars and rounded to the nearest hundred.

To calculate the cost for California if the state had educated in public institutions all of the graduates that had earned their bachelor's and associate's degrees at proprietary institutions, we multiplied the cost per degree at the broad-access, public institutions by the number of degrees awarded by the proprietary institutions for the year. For bachelor's degrees in 2012, the total additional cost for graduating from public institutions those who graduated from proprietary institutions was approximately \$890 million (20,900 bachelor's degrees x \$42,500). For associates degrees in 2012, the total additional cost for graduating from public institutions those who graduated from proprietary institutions was approximately \$592 million (28,300 associate's degrees x \$20,900). *In total, California would have had to appropriate nearly \$1.5 billion to graduate this single class of additional students from its public two- and four-year institutions.*

We repeated this exercise for each of the five academic years and added them to produce the estimates for California (Table A.2).

After completing this calculation, we subtracted the state appropriations received by proprietary institutions for the benefit of individual students for each year they would have attended school. Because we were calculating the costs to educate students graduating in 2012, and we assumed that they attended school for six years to earn a bachelor's degree and three years to earn an associate's degree, we added the total state appropriations from AY2006–07 to AY2011–12 for a bachelor's degree and from AY2009–10 to AY2011–12 for an associate's degree and converted them into 2013 dollars by adjusting for changes in the CPI. Next, we subtracted this total number from the additional appropriations needed for graduates to earn bachelor's and associate's degrees in 2012, respectively. This permitted us to conclude with the most conservative numbers permitted by our data. Again, we assumed that additional appropriations would not be needed to expand the physical infrastructure of the public institutions that would receive an additional 56,000 two-year and 91,000 four-year students in AY2011–12.

To avoid double counting for five years' worth of data, we summed the total state appropriations from AY2002–03 to AY2011–12 for bachelor's degrees and from AY2005–06 to AY2011–12 for associate's degrees and converted these into 2013 dollars by adjusting for changes in the CPI. We then subtracted this total number from the additional annual appropriations needed for graduates with bachelor's and associate's degrees, respectively, from AY2008 to AY2012.

Appendix B

Table B.1: Annual Appropriations, From AY2007–08 to AY2011–12, Per FTE Student (in 2013 Dollars) at Broad-Access, Four-Year Institutions Used in the Study

Name of Institution	State	2011–12	2010–11	2009–10	2008–09	2007–08
California State University– Bakersfield	CA	\$6,849	\$8,619	\$7,772	\$7,192	\$10,231
California State University–Dominguez Hills	CA	\$5,422	\$6,859	\$6,273	\$6,090	\$8,724
California State University–Fresno	CA	\$5,226	\$7,065	\$6,601	\$6,059	\$8,583
California State University– Monterey Bay	CA	\$10,896	\$13,762	\$11,639	\$10,616	\$15,711
California State University–Northridge	CA	\$4,137	\$6,321	\$5,598	\$5,082	\$7,433
CUNY College of Staten Island	NY	\$6,050	\$5,963	\$6,146	\$6,424	\$7,144
CUNY Medgar Evers College	NY	\$8,348	\$8,978	\$7,616	\$9,831	\$10,859
CUNY New York City College of Technology	NY	\$4,919	\$5,401	\$5,241	\$6,039	\$6,130
CUNY York College	NY	\$6,831	\$7,740	\$7,672	\$8,028	\$8,062
CUNY Lehman College	NY	\$8,332	\$8,350	\$8,290	\$8,785	\$9,081
SUNY Institute of Technology at Utica–Rome	NY	\$11,278	\$12,496	\$14,694	\$16,353	\$17,081
Ohio State University–Lima	OH	\$3,297	\$3,346	\$3,689	\$4,186	\$4,109
Ohio State University–Mansfield	OH	\$4,003	\$4,438	\$4,400	\$5,031	\$4,709
Ohio State University–Marion	OH	\$3,732	\$3,412	\$3,553	\$3,843	\$3,776
Ohio State University–Newark	OH	\$2,650	\$3,248	\$3,596	\$3,364	\$3,096
Shawnee State University	OH	\$3,958	\$3,865	\$4,204	\$5,332	\$5,366
University of Akron Main Campus	OH	\$4,397	\$4,363	\$4,737	\$5,830	\$5,606
University of Toledo	OH	\$5,590	\$5,504	\$5,689	\$6,461	\$6,747
Youngstown State University	OH	\$3,358	\$3,251	\$3,535	\$4,646	\$4,324
Angelo State University	TX	\$4,872	\$5,212	\$5,980	\$6,035	\$6,126
The University of Texas at El Paso	TX	\$5,247	\$5,284	\$6,540	\$6,648	\$6,498
University of Houston–Downtown	TX	\$2,919	\$3,996	\$4,103	\$4,385	\$4,387

Note: CUNY = City University of New York; SUNY = State University of New York.

Table B.2: Online FTE Students Resident in the Four States Who Were Enrolled in Proprietary Institutions That Reported Them as Resident Outside the Four States (by State, Type of Institution, and Year)

State, Type of Institution	Fall 2011	Fall 2010	Fall 2009	Fall 2008	Fall 2007	Total
California, 2-Year	8,521	9,911	11,481	9,930	7,709	47,553
California, 4-Year	19,411	17,770	15,392	11,800	9,145	73,518
New York, 2-Year	4,504	5,343	6,261	5,018	3,923	25,048
New York, 4-Year	6,445	6,125	5,406	4,084	3,293	25,352
Ohio, 2-Year	8,742	10,860	14,405	12,360	8,756	55,121
Ohio, 4-Year	11,462	10,753	9,849	7,705	5,908	45,678
Texas, 2-Year	9,224	10,528	10,947	8,462	5,771	44,932
Texas, 4-Year	15,087	13,334	10,886	7,615	5,259	52,182
Total FTE Students	83,396	84,625	84,627	66,974	49,762	369,385

Table B.3: Online Graduates Resident in the Four States Who Graduated from Proprietary Institutions That Reported Them as Resident Outside the Four States (by State, Type of Degree, and Academic Year)

State, Type of Degree	AY2011–12	AY2010–11	AY2009–10	AY2008–09	AY2007–08	Total
California, Associate's	3,926	4,080	2,712	1,934	1,414	14,066
California, Bachelor's	8,521	7,193	5,722	4,298	3,215	28,949
New York, Associate's	1,716	1,831	1,194	901	578	6,220
New York, Bachelor's	1,935	1,658	1,316	1,050	943	6,902
Ohio, Associate's	4,055	4,556	3,059	1,938	1,192	14,800
Ohio, Bachelor's	4,451	3,852	2,995	2,385	1,841	15,524
Texas, Associate's	3,179	3,309	2,404	1,658	930	11,480
Texas, Bachelor's	4,137	3,413	2,697	1,998	1,459	13,704
Total Degrees	31,920	29,892	22,099	16,162	11,572	111,645

Table B.4: Appropriations Received by Proprietary Institutions For the Benefit of Individual Students that Were Subtracted From the Total Additional Appropriations Needed (in 2013 Dollars)

Four-Year Institutions		
State	2008–12	AY2002–03 to AY2011–12
California	\$77,288,400	\$88,010,500
New York	\$33,794,000	\$99,558,500
Ohio	\$20,675,600	\$20,675,600
Texas	\$7,172,900	\$7,172,900
Total	\$138,930,900	\$215,417,500
Two-Year Institutions		
State	2008–12	AY2002–03 to AY2011–12
California	\$43,684,400	\$59,226,300
New York	\$20,088,900	\$26,006,200
Ohio	\$27,978,200	\$39,094,400
Texas	\$10,538,500	\$16,077,000
Total	\$102,290,000	\$140,403,900

Table B.5: Barron’s Levels of Admissions Competitiveness

Degree of Admissions Competitiveness	General Criteria	Institutions* (Percentage)	Students* (Percentage)
Noncompetitive	Only requires evidence of graduation from an accredited high school; accept 98% or more of applicants.	78 (5.6)	325,332 (4.0)
Less Competitive	Median freshman test scores generally below 500 on SAT and below 21 on ACT; admit students with high school GPAs below C and who rank in top 65% of graduating class; accept 85% or more of applicants.	185 (13.4)	713,321 (8.8)
Competitive	Median freshman test scores between 500 and 572 on SAT and between 21 and 23 on ACT; admit students with minimum high school GPAs between C and B-; accept between 75% and 85% of applicants.	660 (47.7)	3,372,603 (41.5)
Very Competitive	Median freshman test scores between 573 and 619 on SAT and between 24 and 26 on ACT; admit students with average high school GPAs no less than B-; accept between 50% and 75% of applicants.	274 (19.8)	2,025,954 (24.9)
Highly Competitive	Median freshman test scores between 620 and 654 on SAT and between 27 and 28 on ACT; admit students with average high school GPAs no less than B; accept between 33% and 50% of applicants.	107 (7.7)	1,050,497 (12.9)
Most Competitive	Median freshman test scores between 655 and 800 on SAT and 29 and above on ACT; admit students with average high school GPAs no less than B+ and who rank in top 10% to 20% of graduating class; accept fewer than 33% of applicants.	81 (5.8)	641,852 (7.9)
Total		1,385	8,129,559

Note: ACT = American College Test; GPA = grade point average; SAT = Scholastic Assessment Test.

*Hess, F. M., Schneider, M., Carey, K., & Kelly, A. P. (2009). *Diplomas and dropouts: Which colleges actually graduate their students (and which don't)* (Table A1). Washington, DC: American Enterprise Institute.

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