THE GREAT COST SHIFT

HOW HIGHER EDUCATION CUTS UNDERMINE THE FUTURE MIDDLE CLASS

John Quinterno

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ABOUT DEMOS

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EXECUTIVE SUMMARY

Just as a postsecondary education has become essential for getting a decent job and entering the middle class, it has become financially out of reach for many of America's young people. The cost of going to school has increased exponentially over the past twenty years, while financial aid policies have increasingly abandoned students with the greatest financial need. As a result students and their families now pay—or borrow—a lot more for a college degree.

This report examines how state disinvestment in public higher education over the past two decades has shifted costs to students and their families. Such disinvestment has occurred alongside rapidly rising enrollments and demographic shifts that are yielding larger, more economically, racially, and ethnically diverse student bodies.

This pattern of state disinvestment and increasing costs threatens not just the future well-being of individual students, but also our nation's longstanding commitment to equal access to higher education regardless of one's socioeconomic background, as increasing costs are pricing low-income students out of an education. It also threatens the future economic health of states, as insufficient financial support contributes to low rates of college completion, depriving states of the educated workforces needed to thrive in the 21st century economy. In short, state disinvestment in public higher education has exacted a high toll on individual students, their families, and society at large, particularly during the 2000s, the period when the sizable "Millennial" generation began to reach college age. To reverse these trends, policymakers and administrators must alter course and renew their support for public higher education.

This report casts a spotlight on the alarming but frequently overlooked pattern of state disinvestment in public higher education by reviewing funding trends from 1990 onward. The study traces trends in the size and composition of the young adult population and analyzes patterns in state support for public higher education over the past two decades. Trends in tuition and financial aid are also examined and policy recommendations are presented for ways to renew America's commitment to nurturing a strong and inclusive middle class through investments in public higher education.

KEY HIGHLIGHTS OF THE REPORT INCLUDE:

COLLEGE POPULATION TRENDS

- Compared to the generation that came of age in the 1990s, the current population of young adults is much larger in size, much more racially and ethnically diverse and more apt to enroll in college.
  - In 2010, the United States was home to 30.7 million young adults between the ages of 18 and 24, up from 26.7 million in 1990.
  - In 1990, 71.7 percent of young adults were White; 13.5 percent were African American; and 11.6 percent were of Hispanic origin. By 2010, persons of Hispanic ethnicity accounted for 20.1 percent of the young adult population, African American persons 12.3 percent, and White persons 57.2 percent.
- Public institutions have played an important role in serving the growing numbers of undergraduate students. Public institutions absorbed 65.6 percent of the undergraduate enrollment increases that have occurred since 1990.

STATE INVESTMENT IN HIGHER EDUCATION

- A review of financial data from 1990 onwards suggests that structural change in state support for higher education is underway.
  - While state spending on higher education increased by $10.5 billion in absolute terms from 1990 to 2010, in relative terms state funding of higher education declined. Real funding per public FTE dropped by 26.1 percent from 1990-1991 to 2009-2010.
  - After controlling for inflation, states collectively invested $6.12 per $1,000 in personal income in 2010-2011, down from $8.75 in 1990-1991, despite the fact that personal income increased by 66.2 percent over that period.
- Over the past 20 years there has been a breakdown in the historical funding pattern of recessionary cuts and expansionary rebounds. The length of time for higher education funding to recover following recessions has lengthened for every downturn since 1979 with early evidence suggesting that the recovery from the Great Recession will be no different.

PATTERNS IN TUITION AND FINANCIAL AID

- As state support has declined, institutions have balanced the funding equation by charging students more. Between 1990-1991 and 2009-2010, published prices for tuition and fees at public four-year universities more than doubled, rising by 112.5 percent, after adjusting for inflation, while the real price of two-year colleges climbed by 71 percent.
- In many states, the tuition increases of the past 20 years have occurred alongside expansions in state-sponsored financial aid programs. Between 1990-1991 and 2009-2010, the aggregate investment in state grant and loan programs more than tripled, rising to $10.8 billion from $3.5 billion. However, an increasing percentage of that aid is taking the form of merit-based aid which is awarded without regard for students' financial situations.

CHALLENGES FOR STUDENTS, FAMILIES, AND STATES

- The steady escalation in college prices has occurred alongside stagnant incomes for most American households. Median household income in the United States in 2010 was just 2.1 percent higher than in 1990.
- To bridge the gap between cost and financial aid, increasingly students are borrowing from federal loan programs and private sources like banks. The volume of outstanding student loan debt has grown by a factor of 4.5 since 1999.

POLICY RECOMMENDATIONS

This report demonstrates that states have reached a turning point in their relationship to public higher education, and the policy choices of the next few years will determine the extent to which public institutions of higher education continue to function as a bridge to the middle class for young adults, especially for those from low- and moderate-income backgrounds. Public leaders should consider the following recommendations when weighing investments in public higher education.

- State leaders should invest more of their wealth in higher education, especially given the growth in student enrollments—growth that will not abate anytime soon.
- State leaders should reform their tax system to ensure that funding for higher education will not continue to get squeezed out of their budgets.
- State leaders should prioritize funding for institutions that educate the largest fraction of college students in funding decisions. Similarly, public leaders must recognize the extent to which student bodies have changed. A different student body requires different sorts of services and supports.
- State leaders must recognize that any specific percentage reduction in state aid requires much larger percentage rises in tuition. Such increases price low- and moderate-income students out of higher education.
- States leaders should align investments in higher education with the goal of completion.
- State leaders should reorient their financial aid policies back toward need-based aid.
- State leaders should steer students toward more affordable sources of debt like the federal student loan program.

INTRODUCTION

The completion of postsecondary education has become a minimum requirement for young adults seeking a place in America's middle class. By the late 2000s, the typical person with an associate's degree earned 51 percent more each year than someone with a high-school diploma, while the average holder of a bachelor's degree earned almost twice as much as a high school graduate.[1] Besides earning more, college graduates are more apt to participate in the labor force, work on a full-time basis, and hold jobs that offer important benefits like health insurance.[2]

Higher education enriches not just individuals but society as a whole. Businesses and the larger economy prosper from access to skilled workers, just as communities reap dividends from the high levels of volunteerism, voting, and civic engagement common among graduates.[3] This combination of personal and social benefits is the rationale behind public support for higher education and efforts to boost the share of Americans completing education beyond high school. In the near future, the imperative to invest in higher education will grow more pronounced, given that occupational forecasts suggest that 63 percent of the jobs that the United States will net by 2018 will require workers with some kind of postsecondary educational credential.[4]

Americans of all ages have recognized the importance of higher education as a pathway to the middle class, and more people are attending college than in the past. In fall 2010, an estimated 40.5 percent of young adults between the ages of 18 and 24—some 12.4 million individuals in total—enrolled in a two-year college or four-year university; twenty years earlier, the enrollment rate was 29.4 percent.[5] Furthermore, the number of adults older than age 24 enrolled in a college or university rose over the same period, climbing to 7.9 million from 5.8 million. In 2010, approximately 40 percent of all college students were older than age 24, with the bulk of these students attending school on a part-time basis.[6]

Responsibility for educating the swelling ranks of college students has fallen overwhelmingly to America's 1,000 public two-year colleges and 672 public four-year universities.[7] In fall 2009, public institutions enrolled 76.2 percent of the nation's undergraduate students.[8] Contrary to popular perception, most public college students do not attend research-intensive flagship campuses but two-year colleges and four-year non-doctoral universities. In fact, nearly half of all public college students in 2009 attended two-year colleges, and another quarter studied at non-doctoral universities.[9]

At the same time that growing numbers of Americans are pursuing higher education in the hope of bettering their lives, state governments—the units of government that traditionally have assumed major responsibility for funding public higher education—are investing less in the institutions educating the bulk of America's college students. Despite appropriating $75.6 billion for higher education in 2010-2011, states actually devoted less of their wealth to higher education and invested less on various other measures than they did 20 years ago.

It would be comforting to attribute such trends to cyclical economic factors. After all, the United States experienced two recessions during the 2000s, one of which continues to affect state budgets today. Three years after the onset of the Great Recession, total state appropriations for higher education were 5 percent, or $4 billion, lower. While temporary federal aid offset much of the decline, total state spending nevertheless fell by 1.5 percent even though undergraduate enrollments swelled by 10.3 percent.[10] Funding per public full-time equivalent (FTE) student is consequently lower now than at any point since 1990-1991.[11]

A review of financial and enrollment data from 1990 onward suggests that a significant change in how higher education is financed is underway—a change that is transforming the very nature of public higher education. By investing less, states are effectively shifting costs to students and their families in the form of escalating charges for tuition. Since 1990, published prices for tuition at public four-year universities have risen by 112.5 percent, after adjusting for inflation, and the real value of tuition and fees at two-year institutions has climbed 71 percent.[12] Higher prices are particularly troubling in light of the national stagnation of household incomes. In 2010, the median inflation-adjusted annual income among U.S. households was only 2.1 percent higher than in 1990.[13]

A radical reorientation of the financial aid environment has exacerbated the cost pressures. At the federal level, financial aid has shifted from grant-based aid toward loans. In addition, many states have shifted their aid programs from need-based assistance, which tends to benefit low-income students, to merit-based aid, which favors wealthier students. Though merit-based aid remains rare at public two-year colleges, the proportion of students with merit aid at four-year institutions now exceeds the share with need-based assistance.[14] Rising costs, coupled with declining aid and flat incomes, have led many students, particularly low- and moderate-income ones, to borrow at alarmingly high levels. By the middle of 2011, Americans collectively owed more in outstanding student loan debt than credit card debt.[15] To avoid or minimize indebtedness, many students elect to work long hours and enroll on a part-time basis—seemingly logical actions that actually heighten their odds of never completing a program of study.

This report examines how states have disinvested in public higher education over the past two decades and in the process have shifted costs to students and their families. Such disinvestment has occurred alongside rapidly rising enrollments and demographic shifts that are yielding more economically, racially, and ethnically diverse student bodies. At the same time that postsecondary education has become a critical pathway into the middle class, increasing numbers of students are struggling to finance and complete the postsecondary educations needed to secure middle-class lives.

This pattern threatens not just the future well-being of individual students, but also our longstanding commitment to equal access to higher education regardless of one's socioeconomic background, for as the costs of higher education increasingly shift to the individual, low-income students are becoming priced out of an education. It also threatens the future economic health of states, as low rates of college completion deprive states of the educated workforces needed to thrive in the 21st century. In short, state disinvestment

in public higher education has exacted a high toll from individual students, their families, and society at large, particularly during the 2000s, the period when the sizable "Millennial" generation began to reach college age. To reverse these trends, policymakers and administrators must alter course and renew their support for public higher education.

This report casts a spotlight on the alarming but frequently overlooked pattern of state disinvestment in public higher education by reviewing funding trends from 1990 onward (**Box 1**). The study begins by tracing trends in the size and composition of the young adult population and illustrates how the current generation of young adults is much larger in size, much more apt to enroll in college, and much more racially and ethnically diverse than the generation that came of age in the 1990s. The second section analyzes patterns in state support for public higher education over the past two decades and outlines how states are investing less in higher education on most every measure despite surging enrollments. Attention then shifts to a review of tuition and financial aid developments and a discussion of how the financial aid system has failed to keep pace with escalating college costs, thereby forcing students and their families to rely on financing strategies that reduce their odds of completing school. The meaning of those trends is the focus of the fourth section, while the final section offers policy recommendations for renewing America's commitment to nurturing a middle class through investments in public higher education.

BOX 1 DATA, CONCEPTS, AND LIMITATIONS

Analyzing public higher education is a complex task for two reasons. The first is the sheer scale of the enterprise. In 2009, the United States boasted 1,672 public colleges and universities that enrolled 14.8 million individuals in all levels of instruction. Those schools employed 2.4 million people and expended $273 billion on operating costs.[1] The second is public education's decentralized nature. States are the main sponsors of public higher education and differ greatly in their structural, governance, funding, and accountability models.

The diversity of state systems hinders the compilation of data comparable across time and place. This is especially true for financial information. Some states, for instance, include employee pension benefits as part of their higher education budgets, but others do not. States also differ in how they account for various receipts, and funding may vary over time due to shifts in budgeting practices. An essential element of any state-level analysis, then, is collecting standardized data.

To understand state-level trends since 1990, this report depends primarily on analyses of data contained in the Integrated Postsecondary Education Data System (IPEDS) of the U.S. Department of Education and the annual *Grapevine* financial report prepared by the Center for the Study of Education Policy at Illinois State University.

A unified, annual set of surveys administered to institutions of higher education, IPEDS collects data about enrollment, institutional traits, prices, financial aid, program completion, and finances from every

school participating in federal student aid programs. IPEDS provided the enrollment figures featured in this report. Schools report enrollment figures in two main ways:

1. **FALL (HEADCOUNT) ENROLLMENT** reflects the actual number of individual students enrolled in courses that count toward a degree or formal award in the fall of each year. In short, fall enrollment provides a snapshot of the number of distinct persons enrolled either full-time or part-time in for-credit programs at the start of the academic year.

2. **FULL-TIME EQUIVALENT (FTE) ENROLLMENT** is a measure that expresses the number of individually enrolled students as a number of full-time students. In general, a full-time student is one enrolled in a degree program for at least 12 credit hours per semester. FTE figures matter because states typically fund higher education based on FTE enrollment.

The *Grapevine* project was the source of the financial information used in this report. The *Grapevine* project attempts to collect financial information from states in a uniform way. Each year since 1961, the project has surveyed every state system of higher education. The concept of interest is **state effort** or **state support**, defined as the amount appropriated each year to fund the operating expenses of universities, colleges, community colleges, higher education agencies, state financial aid programs, and independent institutions of higher education. The survey also inquires into funds provided through multi-year appropriations, non-tax sources like lottery revenues and interest earnings, and, in recent years, federal recovery funds. State effort excludes appropriations for capital projects and debt service, as well as revenues from federal aid, fees, and auxiliary enterprises.

While respected by researchers, *Grapevine* data originate from surveys of state systems and are subject to various kinds of response errors. Moreover, the diversity of state systems precludes the elimination of all variation. Readers should therefore not read too much into any individual state values or draw definite interstate comparisons based solely on *Grapevine* figures. Any attempt to understand a particular state would require in-depth study of that state's specific practices.

In addition to IPEDS and *Grapevine* data, the report draws on supplementary information from the U.S. Census Bureau, U.S. Bureau of Economic Analysis, and U.S. Bureau of Labor Statistics. The Bureau of Labor Statistics' Consumer Price Index, for example, provided the values used to adjust all financial figures to their 2010 dollar equivalents. Similarly, while the study focuses on 1990 onward, data were not available for every variable for every year. Readers therefore should pay close attention to the years cited in the text, as well as to the explanations offered in each section.

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1. National Center for Education Statistics, Digest of Education Statistics: 2010 (Washington, DC: U.S. Department of Education, 2011), various tables, http://nces.ed.gov/programs/digest/2010menu_tables.asp.

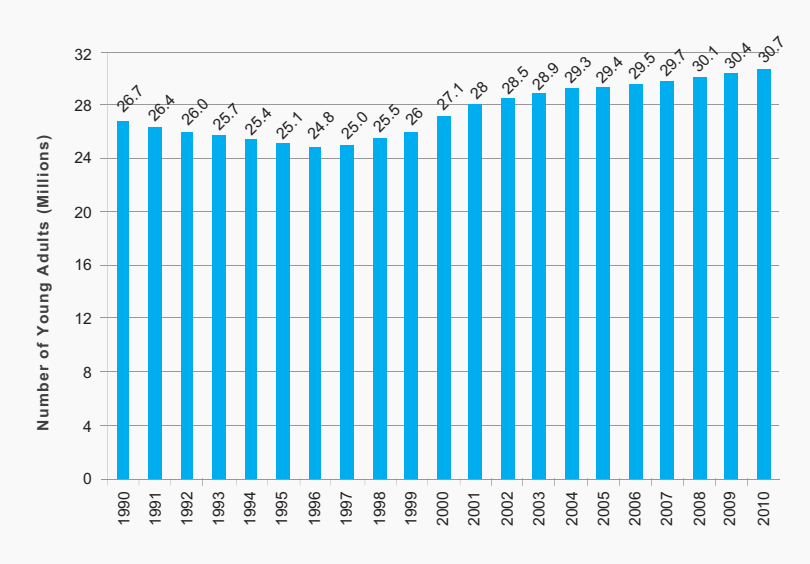
COLLEGE POPULATION TRENDS

The young adult population of today differs markedly from the one of 20 years ago. In 2010, the United States was home to 30.7 million young adults between the ages of 18 and 24, up from 26.7 million in 1990.[16] Compared to the generation that came of age in the 1990s, the current population of young adults is much larger in size, more racially and ethnically diverse, and more likely to enroll in college. These trends characterize, to differing degrees, most every state and are apt to grow more pronounced in the future. This section examines the current young adult population and identifies the new demands and challenges confronting American public higher education, stemming from these shifts in demographic and shifts in socioeconomic characteristics.

MORE YOUNG ADULTS, MORE COLLEGE STUDENTS

Americans had relatively few children during the 1970s, with several years in the mid-1970s actually registering the lowest fertility rates of the entire post-war period.[17] The small size of these birth cohorts meant that comparatively few young adults came of age during the 1990s (**Figure 1**). Births rebounded in the 1980s and 1990s, the period when the bulk of the sizable Baby Boom generation entered its peak childbearing years. The resulting children—the so-called "Millennial" generation—began to turn 18 in 2000, a year in which there were 27.1 million Americans between the ages of 18 and 24. The number of young adults has increased steadily, reaching a high of 30.7 million in 2010.[18] College enrollments will continue to increase as the youngest Millennials have only begun to age into the college population.

Figure 1 | **YOUNG ADULT POPULATION (AGES 18-24), UNITED STATES, 1990-2010**



SOURCE: *US Census Bureau, Decennial Census, 1990, 2000, and 2010; Population Estimates Program, U.S. Census.*

Increases in the size of the young adult population have occurred throughout the

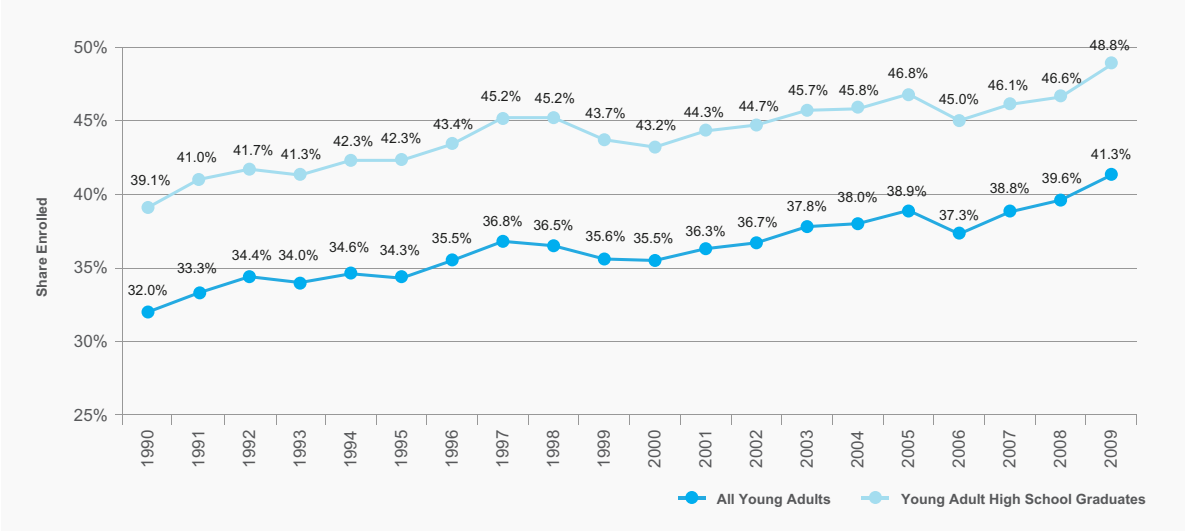
country. From 1990 to 2010, the young adult population grew in all but eight states: Connecticut, Maine, Massachusetts, Michigan, New Jersey, Ohio, Rhode Island, and West Virginia. Nevada posted the greatest rate of growth, followed by Arizona, Utah, Idaho, Colorado, and Florida (**Table A1**).[19]

By 2010, one-third of the nation's young adults lived in just four states: California, Texas, New York, and Florida (**Table A2**). Pennsylvania, Illinois, Ohio, Michigan, Georgia, and North Carolina contained 22 percent of young adults; another 15.6 percent resided in Virginia, New Jersey, Massachusetts, Indiana, Washington, Arizona, and Tennessee. The remaining 29 percent of young adults were scattered among the remaining 33 states and the District of Columbia.[20]

Not only are states home to more young people than 20 years ago, but the share of young adults pursuing higher education also has increased. In fall 1990, some 32 percent of all young adults—and 39.1 percent of those who had completed high school—studied at a two-year or four-year college; by fall 2009, the most recent year with detailed data, 41.3 percent of all young adults and nearly half of all high school completers were enrolled **(Figure 2)**. Increases in enrollment rates occurred for students of both sexes and from every major racial and ethnic group. In 2009, half of all young White high school completers were in college, up from 40.4 percent in 1990. Similarly, the share of young African American high school completers enrolled in college rose to 46.7 percent from 32.7 percent, with the share of enrolled Hispanic high school completers increasing to 38.7 percent from 28.7 percent.

In fall 2009, some 17.6 million individual students enrolled in undergraduate programs, up from 11.9 million in 1990, a 46.5 percent increase. Of those 17.6 million students, 13.4 million, or 76.2 percent, studied at public institutions. Enrollments grew by 32.5 percent between 2000 and 2009, with 44.5 percent of that increase occurring between 2007 and 2009, the same time when the Great Recession was raging. Public enrollments, meanwhile, grew by 2.8 million students, with 1.3 million of those additional students enrolling between 2007 and 2009.[22]

Figure 2 | **SHARE OF YOUNG ADULTS (AGES 18-24) ENROLLED IN HIGHER EDUCATION, UNITED STATES, FALL 1990-FALL 2009**



*NOTE: *Vertical axis does not start at zero to better illustrate change.*

SOURCE: *National Center for Education Statistics, Digest of Education Statistics, 2010, Table 212.*

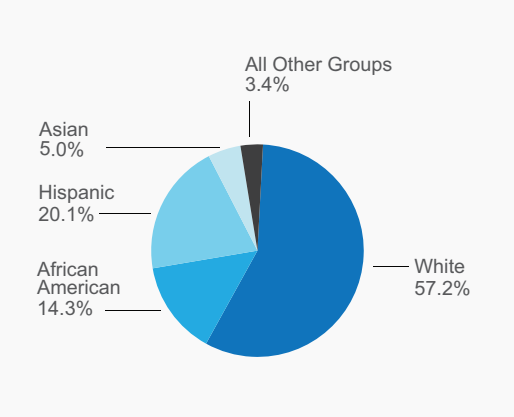
Besides increasing in size, the young adult population has become much more racially and ethnically diverse over the last 20 years. In 1990, 71.7 percent of young adults were White; 13.5 percent were African American; and 11.6 percent were of Hispanic origin. By 2010, persons of Hispanic ethnicity accounted for 20.1 percent of the young adult population, African American persons 12.3 percent, and White persons 57.2 percent.[23] The Asian population also grew rapidly over that period, climbing by 70.6 percent; by 2010, Asian individuals represented 5 percent of the total young adult population with Native Americans and other groups constituting the remainder of the population **(Figure 3)**.[24]

But the most striking population growth occurred among Hispanic young adults, up 93.3 percent, or 3 million individuals, between 1990 and 2010. This population grew at rapid rates in every state between 1990 and 2010 when Hispanic persons constituted at least 13 percent of the young adult population in half of the states. Furthermore, Hispanic individuals represent the majority of the young adult population in three states—New Mexico, California, and Texas—and at least a quarter of the population in six more **(Table A2)**.[25]

Given the shift in the racial and ethnic composition of the young adult population, undergraduate student bodies have become more diverse. In 2009, approximately 36-of-every-100 undergraduate students were members of a racial or ethnic minority group, up from 30-of-every-100 in 2000 and 21-of-every-100 in 1990. By 2009, African American students accounted for 14.7 percent of all undergraduate enrollments, up from 9.6 percent in 1990; during that same period, the Hispanic share of total enrollment jumped to 13.4 percent from 6.1 percent **(Figure 4)**.[26]

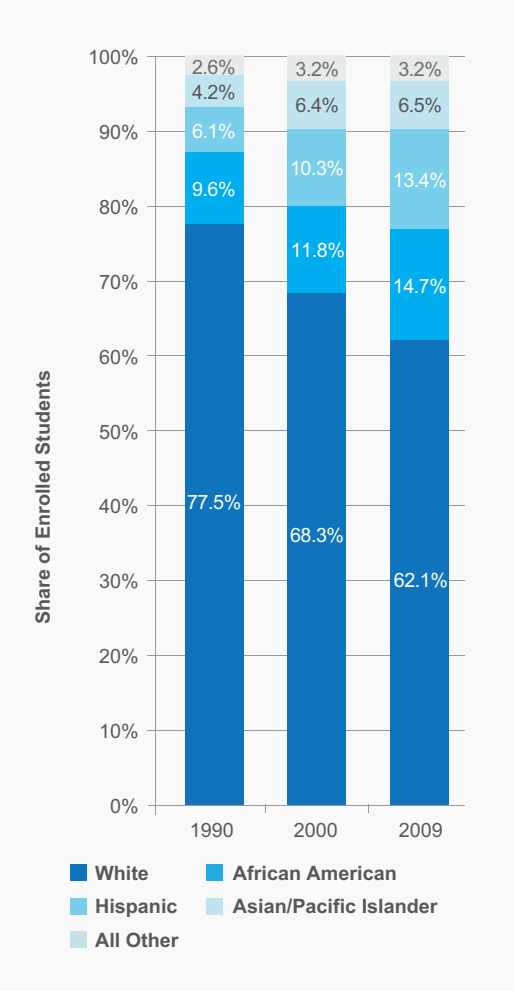
Changes in the racial and ethnic composition of the young adult population are significant developments for institutions of public higher education. On one level, a more diverse young adult population matters because it tends to have greater financial needs. Between 2005 and 2009, approximately half of all non-Hispanic White young adults belonged to households with annual incomes below $65,000. The comparable figures for Hispanic young adults and non-Hispanic African American ones were $40,000 and $37,500, respectively.[27]

Figure 3 | **RACIAL/ETHNIC COMPOSITION OF YOUNG ADULT POPULATION (AGES 18-24), UNITED STATES, 2010**



SOURCE: *US Census Bureau, Decennial Census, 2010.*

Figure 4 | **RACIAL/ETHNIC COMPOSITION OF UNDERGRADUATE STUDENTS, UNITED STATES, 1990, 2000, AND 2009**



SOURCE: *National Center for Education Statistics, Digest of EducationStatistics, 2010, Table 235.*

On another level, changes in the socioeconomic profile of college students matter because students from low-income backgrounds often face greater challenges to completing a credential due to being the first in their families to attend higher education and because inequities in the K-12 educational system tend to underserve low-income students. Adequately meeting student needs therefore often requires colleges to alter certain practices or incur new kinds of costs. A failure to provide young adults with the services and supports needed to pursue and complete a program of study is furthermore a costly one to the larger economy in light of the mounting importance of a skilled workforce.

ENROLLMENT TRENDS IN PUBLIC HIGHER EDUCATION

Public institutions have played an important role in serving the growing numbers of undergraduate students. Between 1990 and 2009, undergraduate enrollments in public institutions rose by 37.9 percent, or 3.7 million students. Put differently, public institutions absorbed 65.6 percent of the undergraduate enrollment increases that have occurred since 1990, including 63.7 percent of the undergraduate students who have enrolled in college since 2007.[28]

Every state experienced growth in the number of undergraduate students enrolled in public institutions between 1990 and 2008, the latest year with complete data **(Table A3)**.[29] By 2008, two-thirds of all public undergraduate students studied in 15 states: California, Texas, Florida, New York, Illinois, Michigan, Ohio, North Carolina, Pennsylvania, Georgia, Virginia, Arizona, New Jersey, Washington, and Indiana. These states contained 60 percent of all public four-year university students and 72 percent of two-year ones.[30]

FUTURE GROWTH

Projections suggest that the number of college enrollments will continue to rise over the next decade, with nearly 60 percent of the anticipated growth attributable to the remaining Millennials reaching college-going age. In fact, the latter half of the Millennial generation, meaning the persons born between 1991 and 1999, only began to reach age 18 in 2009, and the very youngest members of the cohort are not expected to reach age 18 until 2017. Moreover, enrollment numbers could rise even further if young adult enrollment rates rise or if the number of older individuals returning to school for further education or retraining rises. More narrowly, the National Center for Education Statistics, a unit of the US Department of Education, forecasts a 15.9 percent rise in the number of college students between the ages of 18 and 24 between 2009 and 2019. That increase of 1.8 million students would bring total enrollment to 13.5 million—a level 1.7 times greater than the one recorded in 1990 and 1.5 times greater than the one posted in 2000.[31]

STATE INVESTMENT IN HIGHER EDUCATION

Rapid growth in student enrollments—growth that is unlikely to abate anytime soon—has occurred at a time of state disinvestment in public higher education. Such disinvestment has effectively narrowed the pathway into the middle class for sizable numbers of young adults over the last two decades. This section reviews trends in state support for public higher education from 1990-1991 to the present and finds that the pattern of disinvestment is not a temporary consequence of the Great Recession but rather of a sustained, decades-long shift that has transformed the nature of higher education.

A SNAPSHOT OF STATE SUPPORT FOR HIGHER EDUCATION, 2010-2011

State governments long have shouldered the primary responsibility for funding public higher education, and states have invested in two-year colleges and four-year universities based on the combination of personal, economic, and social benefits associated with the completion of education beyond high school. In 2010-2011, total state support for public universities, community colleges, higher education agencies, financial aid programs, and independent institutions equaled $75.6 billion **(Table 1)**. States also provided another $2.8 billion in federal funds extended under the American Recovery and Reinvestment Act (ARRA).[32]

As part of the 2009 recovery legislation, Congress established a $48.6 billion State Fiscal Stabilization Fund under the administration of the US Department of Education. The fund's purpose was to offset state budget cuts to public education that otherwise would result from the revenue shortfalls stemming from the Great Recession (**Box 2**).[33] Between fiscal years 2008-2009 and 2010-2011, states directed $9.7 billion in federal funds to higher education. While states appropriated the bulk of available federal funding in 2008-2009 and 2009-2010, some 31 states had money remaining for use in 2010-2011. Accounting for these funds, total state support for higher education was $78.5 billion in 2010-2011.[34]

Compared to the prior fiscal year, states collectively provided essentially no more funding for higher education—in both their own tax revenues and ARRA dollars—in 2010-2011. Aggregate appropriations for the year equaled $78.5 billion, compared to $78.4 billion in the prior year. States allocated more of their own revenues to higher education in 2010-2011, but the increases essentially offset the anticipated drop in ARRA dollars. In terms of individual states, 23 appropriated at least as much combined funding as they did in 2009-2010, while 27 states provided less support.[35]

Table 1 | **STATE SUPPORT FOR HIGHER EDUCATION, BY STATE, FISCAL YEAR 2010-2011**

	State Appropriations			ARRA Funds		Total		
State	Appropriations (Thousands)	Share of National Total	Appropriations Rank (1=Highest)	ARRA Funds (Thousands)	Share of National Total	Total (Thousands)	Share of National Total	Appropriations Rank (1=Highest)
United States	$75,619,510	100.0%	-	$2,846,516	100.0%	$78,466,026	100.0%	-
Alabama	$1,424,917	1.9%	18	$118,744	4.2%	$1,543,661	2.0%	18
Alaska	$342,154	0.5%	42	$0	0.0%	$342,154	0.4%	42
Arizona	$1,087,207	1.4%	23	$0	0.0%	$1,087,207	1.4%	24
Arkansas	$902,799	1.2%	28	$13,641	0.5%	$916,441	1.2%	29
California	$10,942,681	14.5%	1	$217,200	7.6%	$11,159,881	14.2%	1
Colorado	$676,318	0.9%	34	$89,194	3.1%	$765,512	1.0%	32
Connecticut	$1,076,131	1.4%	24	$0	0.0%	$1,076,131	1.4%	25
Delaware	$212,456	0.3%	45	$0	0.0%	$212,456	0.3%	45
Florida	$3,766,832	5.0%	5	$350,464	12.3%	$4,117,296	5.2%	4
Georgia	$2,915,441	3.9%	7	$57,299	2.0%	$2,972,740	3.8%	7
Hawaii	$489,556	0.6%	39	$22,000	0.8%	$511,556	0.7%	39
Idaho	$343,297	0.5%	41	$4,767	0.2%	$348,064	0.4%	41
Illinois	$3,200,025	4.2%	6	$0	0.0%	$3,200,025	4.1%	6
Indiana	$1,564,731	2.1%	16	$0	0.0%	$1,564,731	2.0%	17
Iowa	$758,712	1.0%	31	$0	0.0%	$758,712	1.0%	33
Kansas	$754,759	1.0%	32	$40,424	1.4%	$795,182	1.0%	31
Kentucky	$1,222,151	1.6%	21	$57,273	2.0%	$1,279,424	1.6%	21
Louisiana	$1,292,584	1.7%	20	$289,592	10.2%	$1,582,177	2.0%	16
Maine	$266,112	0.4%	44	$10,578	0.4%	$276,690	0.4%	44
Maryland	$1,596,129	2.1%	14	$0	0.0%	$1,596,129	2.0%	14
Massachusetts	$1,138,650	1.5%	22	$76,054	2.7%	$1,214,704	1.5%	22
Michigan	$1,869,659	2.5%	11	$0	0.0%	$1,869,659	2.4%	12
Minnesota	$1,381,065	1.8%	19	$0	0.0%	$1,381,065	1.8%	20
Mississippi	$932,495	1.2%	27	$86,199	3.0%	$1,018,694	1.3%	26
Missouri	$959,556	1.3%	26	$41,442	1.5%	$1,000,998	1.3%	27
Montana	$172,375	0.2%	47	$37,167	1.3%	$209,542	0.3%	46
Nebraska	$653,935	0.9%	35	$0	0.0%	$653,935	0.8%	35
Nevada	$550,169	0.7%	37	$0	0.0%	$550,169	0.7%	37
New Hampshire	$141,870	0.2%	49	$0	0.0%	$141,870	0.2%	49
New Jersey	$2,050,400	2.7%	8	$0	0.0%	$2,050,400	2.6%	10
New Mexico	$874,736	1.2%	29	$11,888	0.4%	$886,624	1.1%	30
New York	$4,750,369	6.3%	3	$281,943	9.9%	$5,032,313	6.4%	3
North Carolina	$3,848,231	5.1%	4	$119,221	4.2%	$3,967,452	5.1%	5
North Dakota	$311,678	0.4%	43	$0	0.0%	$311,678	0.4%	43
Ohio	$1,994,909	2.6%	10	$287,803	10.1%	$2,282,711	2.9%	8
Oklahoma	$1,046,030	1.4%	25	$59,795	2.1%	$1,105,825	1.4%	23
Oregon	$626,985	0.8%	36	$23,178	0.8%	$650,163	0.8%	36
Pennsylvania	$2,012,002	2.7%	9	$96,379	3.4%	$2,108,381	2.7%	9
Rhode Island	$157,434	0.2%	48	$13,841	0.5%	$171,275	0.2%	48
South Carolina	$814,866	1.1%	30	$113,758	4.0%	$928,624	1.2%	28
South Dakota	$185,251	0.2%	46	$11,366	0.4%	$196,616	0.3%	47
Tennessee	$1,659,586	2.2%	13	$0	0.0%	$1,659,586	2.1%	13
Texas	$6,270,812	8.3%	2	$0	0.0%	$6,270,812	8.0%	2
Utah	$696,915	0.9%	33	$37,975	1.3%	$734,890	0.9%	34
Vermont	$93,732	0.1%	50	$496	0.0%	$94,227	0.1%	50
Virginia	$1,702,243	2.3%	12	$201,734	7.1%	$1,903,978	2.4%	11
Washington	$1,592,882	2.1%	15	$0	0.0%	$1,592,882	2.0%	15
West Virginia	$492,801	0.7%	38	$34,595	1.2%	$527,396	0.7%	38
Wisconsin	$1,458,596	1.9%	17	$0	0.0%	$1,458,596	1.9%	19
Wyoming	$344,287	0.5%	40	$40,508	1.4%	$384,795	0.5%	40
Median Value	$1,002,793	1.3%	-	$13,741	0.5%	$1,047,413	1.3%	-
Average Value	$1,512,390	2.0%	-	$56,930	2.0%	$1,569,321	2.0%	-

* **NOTE:** *"State support" is the sum of annual state appropriations for the operating expenses of universities, community colleges, higher education agencies, state financial aid programs, and independent institutions of higher learning. "ARRA funds" are temporary federal dollars provided under the American Recovery and Reinvestment Act.*

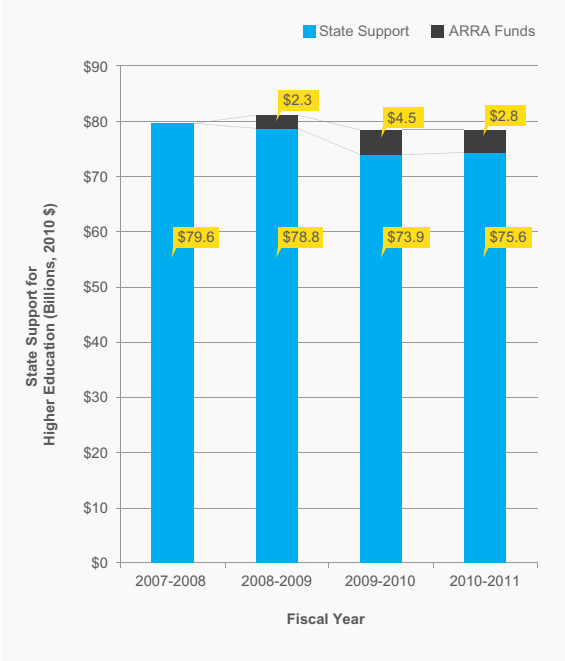
SOURCE: *Center for the Study of Education Policy, Grapevine, various years.*

ARRA funding has served to keep the absolute number of state dollars flowing into higher education constant **(Figure 5)**. Without federal assistance, state appropriations for higher education in 2010-2011 would have been 5 percent lower than in 2007-2008, holding all else constant.[36] At the same time, what matters for public higher education is less the absolute number of dollars available than the amount of funding provided on various per capita measures, such as funding per full-time equivalent (FTE) student. **Table A4** summarizes four relative measures of state higher education support for 2009-2010 and 2010-2011: support per capita, support per young adult, support per public FTE student, and support per $1,000 in personal income. **Figures A1-A3** and **Figure 6**, meanwhile, graph each measure for the nation as a whole from 1990-1991 to 2010-2011.[37]

In 2010-2011, state support for higher education, inclusive of ARRA funding, amounted to $254 for every resident of the United States, or $2,558 per young adult. From an institutional perspective, public institutions received $6,360 per FTE student. And state support amounted to $6.35 for every $1,000 in available wealth. Compared to the prior year, spending was lower on each measure, as state support failed to track the growth in the relevant reference populations. Public FTE enrollment, for one, jumped 15.5 percent over the year, yet funding stayed basically flat.[38]

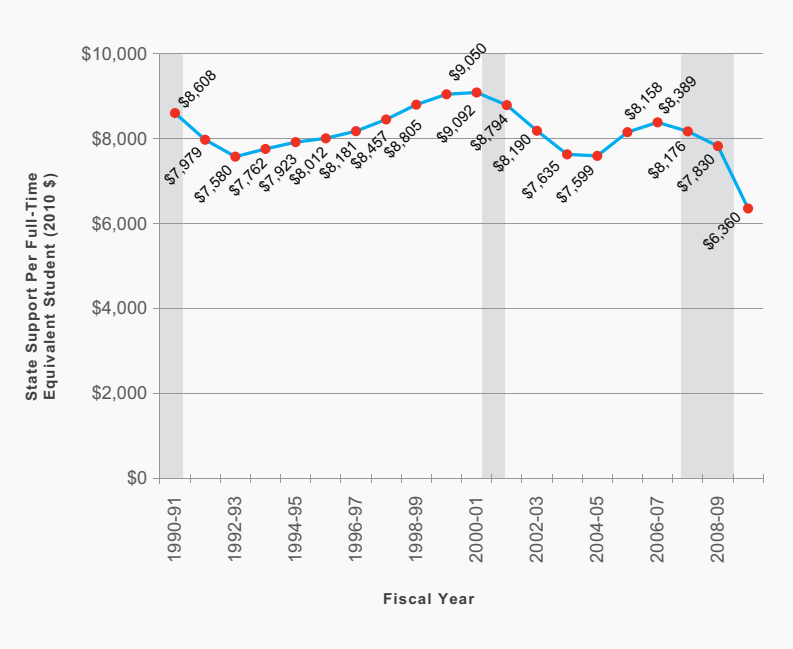
In terms of individual states (excluding Alaska and Hawaii due to their distinctive funding structures), Wyoming provided the most support for higher education per capita, per young adult, and per $1,000 in personal income, as well as the second most support per public FTE student. North Carolina extended the most support of any large state on all four measures. Interestingly, just two of the 10 richest states—California and Texas—ranked in the top half of states in funding per $1,000 in personal income. Connecticut, meanwhile, delivered the most support per public FTE student.[39]

Figure 5 | **STATE SUPPORT FOR HIGHER EDUCATION, UNITED STATES, FISCAL YEARS 2007-2008 TO 2010-2011**



SOURCE: *Author's analysis of Grapevine data, various years.*

Figure 6 | **STATE SUPPORT FOR HIGHER EDUCATION PER FULL-TIME EQUIVALENT STUDENT, FISCAL YEARS 1990-1991 TO 2009-2010**



***NOTE:** *Shaded areas indicate recessions. ARRA funds not included.*

SOURCE: *Author's analysis of Grapevine data, various years; and National Center for Education Statistics, Digest of Education Statistics, various years.*

Another way of assessing state investment in higher education is to consider spending on higher education as a share of all state budget expenditures. In fiscal year 2010-2011, an estimated 11.5 percent of combined state spending went to higher education with the share of state expenditures devoted to higher education ranging from 24.4 percent in Iowa to 2.2 percent in Vermont.[40] Furthermore, state spending provided public colleges and universities with 24.5 percent of their combined revenues in 2008-2009.[41]

TRENDS IN STATE SUPPORT FOR HIGHER EDUCATION, 1990-1991 TO 2010-2011

It would be comforting to attribute the recent declines in relative state support for higher education to cyclical economic factors. After all, the Great Recession that began in late 2007 was a severe, long-lasting one that battered state budgets and would have proven even more severe if not for federal recovery assistance. Unfortunately, a review of financial trends from 1990 to the present suggest that a structural change in state support for higher education is underway—a change that is transforming the very nature of public higher education.

From 1990-1991 to 2010-2011, total state appropriations for higher education rose from $65.1 billion to $75.6 billion, after adjusting for inflation and excluding ARRA funding.[42] Though this $10.5 billion increase seems impressive in absolute terms, state funding actually declined in relative terms over the period. Over the entire period, real per capita funding for higher education dropped to $244 from $261, or 2.3 percent, and real support per young adult remained virtually flat.[43] In 2010-2011, states collectively provided just $41 more per young adult than they did 20 years prior. Such declines occurred because the growth in state support barely kept pace with the population changes described in Section 1. For example, aggregate state support for higher education increased at a rate of 0.8 percent per year from 1990-1991 onward, while the population expanded at an annual rate of 1.2 percent. If states had provided the same level of per capita support as in 1990-1991 they would have invested $80.7 billion in 2010-2011.[44]

Funding per public FTE student followed the same trajectory. Between 1990-1991 and 2009-2010, the most recent year with data, real funding per public FTE student exclusive of ARRA dropped by 26.1 percent, falling to $6,360 from $8,608. Again, this is due to funding levels failing to keep pace with population growth. Although state investment rose at a rate of 0.8 percent per year, public FTE enrollment increased at an annualized rate of 1.8 percent. If states had provided the same level of funding as in 1990-1991, total appropriations in 2009-2010 would have equaled approximately $102 billion, an amount 35.3 percent greater than the actual one.[45]

A similar story pertains to state support relative to personal income, which serves as a proxy for available wealth. After controlling for inflation, states collectively invested $6.12 per $1,000 in personal income in 2010-2011, down from $8.75 in 1990-1991, despite the fact that personal income increased by 66.2 percent over that period. Put differently, the United States became a richer country over that span but devoted less of its wealth to higher education. If states had preserved the same level of investment as in 1990-1991 total investment in higher education in 2010-2011 would have equaled $108.1 billion.[46]

While states vary in their funding structures, the basic patterns apply to every state. **Table 2** presents state-level data for inflation-adjusted support for higher education in absolute terms and on selected relative measures for two points in time: 1990-1991 and 2010-2011. In absolute terms, 36 states provided more support for higher education in 2010-2011 than in 1990-1991, but only 21 provided more in funding per capita, 25 more in funding per young adult, and 7 more in funding per public FTE student. And no state invested more per $1,000 in personal income in 2010-2011 than was invested 20 years earlier.

Table 2 | **STATE SUPPORT FOR HIGHER EDUCATION, BY STATE, FISCAL YEARS 1990-1991 AND 2010-2011**

	Fiscal Year 1990-1991 (2010 $)					Fiscal Year 2010-2011 (2010 $)				
State	Total Appropriations (Thousands)	Funding Per Capita	Funding Per Young Adult (Ages 18-24)	Funding Per Full-Time Equivalent Student	Funding Per $1,000 in Personal Income	Total Appropriations (Thousands)	Funding Per Capita	Funding Per Young Adult (Ages 18-24)	Funding Per Full-Time Equivalent Student†	Funding Per $1,000 in Personal Income
United States	$65,057,360	$261	$2,424	$8,608	$8.75	$75,619,510	$244	$2,465	$6,360	$6.12
Alabama	$1,321,966	$326	$2,950	$8,565	$13.58	$1,424,917	$298	$2,974	$6,980	$8.88
Alaska ††	$306,157	$553	$5,467	$17,918	$15.91	$342,154	$479	$4,569	$16,448	$10.84
Arizona	$969,773	$263	$2,477	$6,318	$10.17	$1,087,207	$170	$1,717	$4,327	$4.91
Arkansas	$533,089	$226	$2,232	$8,399	$10.20	$902,799	$309	$3,178	$7,273	$9.46
California	$9,358,449	$312	$2,732	$9,553	$9.49	$10,942,681	$293	$2,789	$5,184	$6.88
Colorado	$824,598	$249	$2,462	$5,960	$8.36	$676,318	$134	$1,387	$2,451	$3.17
Connecticut	$847,043	$257	$2,454	$11,952	$6.38	$1,076,131	$301	$3,294	$12,518	$5.48
Delaware	$190,330	$284	$2,495	$7,304	$8.71	$212,456	$236	$2,337	$6,992	$5.95
Florida	$2,509,469	$193	$2,071	$8,294	$6.44	$3,766,832	$200	$2,165	$6,150	$5.23
Georgia	$1,558,053	$239	$2,103	$10,449	$8.85	$2,915,441	$300	$3,005	$7,035	$8.63
Hawaii ††	$471,533	$423	$3,857	$14,510	$12.61	$489,556	$359	$3,757	$13,129	$8.62
Idaho	$298,223	$295	$3,019	$9,495	$12.26	$343,297	$218	$2,223	$7,148	$6.83
Illinois	$2,812,610	$246	$2,309	$7,962	$7.66	$3,200,025	$249	$2,568	$8,202	$5.92
Indiana	$1,420,088	$256	$2,325	$8,404	$9.51	$1,564,731	$241	$2,406	$5,886	$7.08
Iowa	$939,706	$338	$3,304	$9,812	$12.65	$758,712	$249	$2,481	$5,962	$6.53
Kansas	$731,468	$295	$2,866	$6,864	$10.62	$754,759	$264	$2,619	$5,486	$6.77
Kentucky	$987,440	$267	$2,442	$8,828	$11.30	$1,222,151	$281	$2,961	$7,874	$8.69
Louisiana	$949,311	$225	$2,021	$7,339	$9.63	$1,292,584	$284	$2,724	$7,287	$7.68
Maine	$301,932	$245	$2,423	$10,106	$9.25	$266,112	$200	$2,293	$6,916	$5.46
Maryland	$1,312,733	$273	$2,602	$9,248	$7.83	$1,596,129	$276	$2,864	$6,854	$5.62
Massachusetts	$1,130,103	$188	$1,591	$8,629	$5.35	$1,138,650	$174	$1,680	$5,921	$3.38
Michigan	$2,409,642	$259	$2,393	$7,370	$8.98	$1,869,659	$189	$1,920	$4,257	$5.46
Minnesota	$1,633,214	$372	$3,695	$11,387	$12.26	$1,381,065	$260	$2,747	$6,630	$6.07
Mississippi	$686,374	$266	$2,303	$7,439	$13.18	$932,495	$314	$3,059	$8,177	$10.11
Missouri	$975,962	$190	$1,881	$6,827	$7.03	$959,556	$160	$1,628	$5,238	$4.33
Montana	$189,064	$236	$2,688	$7,045	$10.00	$172,375	$174	$1,822	$4,408	$4.96
Nebraska	$533,443	$337	$3,409	$8,115	$12.21	$653,935	$357	$3,583	$7,553	$9.00
Nevada	$264,716	$217	$2,227	$7,928	$7.03	$550,169	$203	$2,211	$5,763	$5.51
New Hampshire	$118,252	$106	$1,002	$4,740	$3.41	$141,870	$108	$1,152	$3,506	$2.47
New Jersey	$1,719,552	$222	$2,195	$9,864	$5.91	$2,050,400	$233	$2,672	$7,498	$4.55
New Mexico	$543,728	$357	$3,574	$9,396	$15.66	$874,736	$423	$4,298	$9,434	$12.69
New York	$5,008,477	$278	$2,551	$11,220	$7.61	$4,750,369	$245	$2,395	$8,331	$5.06
North Carolina	$2,405,728	$361	$3,062	$11,548	$13.64	$3,848,231	$402	$4,100	$8,952	$11.51
North Dakota	$210,311	$330	$3,060	$6,946	$13.50	$311,678	$462	$3,847	$8,259	$10.81
Ohio	$2,387,317	$220	$2,089	$7,511	$7.66	$1,994,909	$173	$1,814	$4,504	$4.78
Oklahoma	$809,788	$257	$2,511	$7,434	$10.39	$1,046,030	$278	$2,744	$7,585	$7.86
Oregon	$680,815	$238	$2,541	$6,713	$8.64	$626,985	$163	$1,748	$4,003	$4.48
Pennsylvania	$2,262,210	$190	$1,838	$8,657	$6.35	$2,012,002	$158	$1,595	$5,472	$3.90
Rhode Island	$205,964	$205	$1,705	$7,151	$6.71	$157,434	$150	$1,312	$4,982	$3.55
South Carolina	$1,034,554	$295	$2,522	$10,151	$12.12	$814,866	$176	$1,710	$5,541	$5.41
South Dakota	$146,874	$211	$2,150	$6,637	$8.51	$185,251	$227	$2,272	$5,791	$5.73
Tennessee	$1,153,978	$236	$2,176	$8,864	$9.24	$1,659,586	$261	$2,737	$7,832	$7.47
Texas	$4,180,612	$245	$2,209	$7,554	$9.22	$6,270,812	$248	$2,437	$7,452	$6.58
Utah	$494,723	$286	$2,447	$7,792	$12.50	$696,915	$251	$2,191	$5,802	$7.73
Vermont	$92,078	$163	$1,448	$5,738	$6.00	$93,732	$150	$1,445	$4,282	$3.73
Virginia	$1,731,806	$279	$2,399	$8,561	$8.91	$1,702,243	$212	$2,122	$5,525	$4.79
Washington	$1,389,249	$283	$2,844	$8,635	$9.37	$1,592,882	$236	$2,450	$6,170	$5.55
West Virginia	$446,811	$249	$2,452	$7,544	$11.22	$492,801	$266	$2,916	$6,254	$8.31
Wisconsin	$1,367,219	$279	$2,678	$7,117	$10.07	$1,458,596	$256	$2,656	$5,741	$6.71
Wyoming	$202,442	$446	$4,851	$9,556	$16.18	$344,287	$610	$6,101	$12,032	$13.60
Median Value	$944,508	$258	$2,453	$8,346	$9.43	$1,002,793	$249	$2,465	$6,442	$6.01
Average Value	$1,301,180	$271	$2,582	$8,627	$9.81	$1,512,390	$257	$2,594	$6,860	$6.69

* **NOTE:** *"State support" is total annual state appropriations for the operating expenses of universities, community colleges, higher education agencies, state financial aid programs, and independent institutions of higher learning exclusive of ARRA funds available in 2010-2011.*

† Full-Time Equivalent information is for fiscal year 2009-2010.

†† Due to their unique funding structures, data for Alaska and Hawaii are not fully comparable to those of other states.

SOURCE: *Center for the Study of Education Policy, Grapevine, various years.*

Further evidence of declining state support for higher education is the falling share of all state budget expenditures earmarked for higher education. In fiscal year 2010-2011, an estimated 11.5 percent of combined state spending went to higher education, down from 14.1 percent in 1990-1991.[47] Similarly, the proportion of their revenues that public colleges and universities received from state appropriations dropped from 38.3 percent in 1991-1992 to 24.4 percent in 2008-2009, the most recent year with complete data. The change was especially noticeable in some states.

Consider the case of public higher education in Michigan. In fall 2008, Michigan's 30 two-year colleges and 15 four-year universities enrolled 460,639 students, a total greater than that in all but five other states. For the 2008-2009 year, the Wolverine State provided its public institutions with $2.1 billion in state support, after adjusting for inflation. Public higher education accounted for 4.9 percent of the year's state expenditures. State support provided Michigan's public colleges and universities with 18.9 percent of their annual revenues. Total state investment amounted to $208 for every resident, $2,317 for every young adult, and $5,327 for every public FTE student. Investment further amounted to $5.77 per $1,000 in personal income.[48]

While a total state investment of $2.1 billion seems impressive, Michigan actually spent less on higher education in 2008-2009 than it did in 1990-1991 despite enrolling 7.4 percent more students. That year, the state provided the inflation-adjusted equivalent of $2.4 billion in support, or 16.7 percent more than the actual 2008-2009 level. Total support for higher education equaled 8.4 percent of all state spending and provided public colleges and universities with 29.9 percent of their revenues. In 1990-1991, Michigan's collective support for public education amounted to $259 per resident, $2,393 per young adult, and $7,370 per public FTE student. Moreover, Michigan invested $8.98 per $1,000 of personal income in higher education.[49]

In sum, Michigan invested less in higher education in absolute and relative terms in 2008-2009 than it did almost 20 years ago despite having grown in population and wealth. Given the decline in state support, it is hardly surprising that tuition has increased in response. Between 1990-1991 and 2008-2009, the published charges for tuition and fees at Michigan's public four-year universities grew by 24.6 percent while the published charges for tuition, fees, and room and board rose by 68.4 percent.[50] This represents a shift in support from the state as a whole to individual students and their families.

VARIATIONS BY BUSINESS CYCLE

Because state appropriations for higher education vary greatly with the business cycle, a simple comparison between any two moments in time may lead to the drawing of erroneous conclusions. In 1990, the national economy was entering a recession, so short-term drops in state funding were to be expected; similarly, the economy was in a recovery when states passed their 2010-2011 budgets, meaning that some degree of increase would be expected. While the state of the economy influences all state budget choices, higher education budgets fluctuate notably, as higher education is a discretionary budget item, unlike primary education or Medicaid, which require funding regardless of economic conditions. Historically, public higher education has experienced sharp funding reductions during downturns, followed by generous rebounds during recoveries. Any analysis of higher education funding must therefore consider the business cycle.

Three business cycles unfolded over the last 20 years. The period began with a recession that spanned late 1990 through the middle of 1991, followed by a recovery that stretched until 2001. A short recession oc-

curred that year, which gave way to a recovery that lasted until late 2007. Recessionary conditions prevailed until mid-2009, at which point the economy entered a tepid, ongoing recovery.[51] Because it takes time for recessionary conditions to migrate from the private sector into the public one, state budgets pressures typically manifest themselves with a time lag.

State support for higher education indeed has varied with the business cycle, plunging during downturns and rebounding during recoveries. During the 1990s recession, aggregate state support dropped by 3.6 percent, only to grow by 19.8 percent during the long boom that followed. Similar patterns occurred in state support measured per capita, per young adult, and per public FTE student, though not in support per $1,000 in personal income. Consider support per public FTE student **(Figure 6)**. The 1990s recession caused real support per public FTE student to drop from $8,608 in 1990-1991 to $7,580 in 1992-1993. Support per public FTE student then rose steadily, until reaching a high of $9,092 in 2000-2001, a year in which the states devoted a combined $75.2 billion to higher education.[52]

While a similar pattern of decline and rebound characterized the 2001 recession and subsequent recovery, the decline was steeper and the recovery less robust. State support per public FTE student fell from $9,092 in 2000-2001 to $7,599 in 2004-2005. By 2007-2008, funding per public FTE student had increased by just 7.6 percent from the cycle low, yet was still 10.1 percent below the 2000-2001 level. The sluggish recovery was due to a failure of total state appropriations to keep pace with the growth in the student population. Compared to 2000-2001, states provided 5.9 percent more funding in 2007-2008 yet enrolled 17.8 percent more public FTE students. The 2007 recession resulted in deeper cuts despite steadily rising enrollments, and consequently, support per public FTE student amounted to just $6,360 dollars in 2009-2010. This was the lowest level of public FTE funding in the past 20 years.[53] Recovery, in short, has yet to manifest itself in state support for higher education, and even if a recovery takes hold, evidence suggests that it will not be robust enough to track the anticipated enrollment growth of the next decade.

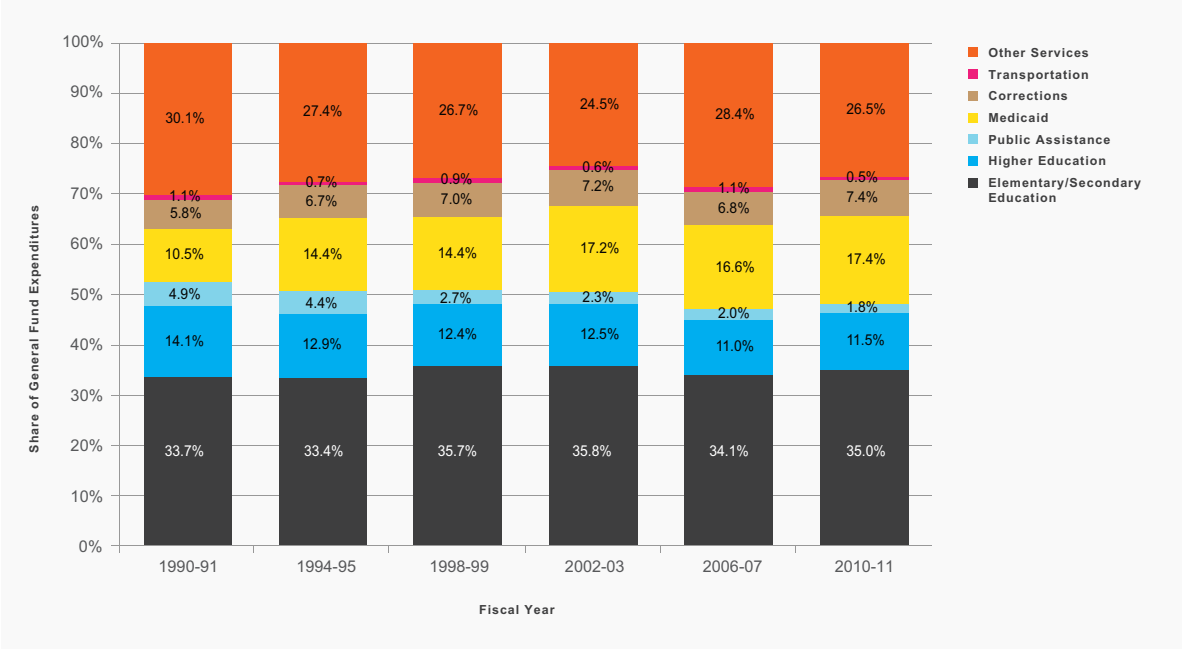
CAUSES OF CHANGES IN STATE SUPPORT FOR HIGHER EDUCATION

The reasons for the sustained decline in state support for higher education are contested ones, and a full consideration of those arguments is beyond the scope of this report. One important dynamic to note is the extent to which state fiscal trends are squeezing public higher education budgets. Total state revenues have declined due to both recessionary shortfalls and the failure of states to modernize their revenue systems to collect the resources needed to finance the services demanded by the public.[54] Absent adequate revenues, states have shifted available resources from discretionary budget categories to mandatory ones like primary and secondary education and the state share of the Medicaid program. In fiscal year 1990-1991, states directed 33.7 percent of their general fund expenditures to primary and secondary education, 10.5 percent to Medicaid, and 14.1 percent to higher education (**Figure 7**). In fiscal year 2010-2011, an estimated 35 percent of general fund expenditures went to primary and secondary education, 17.4 percent to Medicaid, and 11.5 percent to higher education.[55] Assuming the status quo holds, the pressures of mandatory budget items will likely mount in the future, as the population ages and health care costs rise.

Previous research has suggested that increases in unemployment and Medicaid spending lead states to reduce higher education spending, while revenue increases encourage increases in spending.[56] Absent revenue increases, states likely will continue to shift resources away from public higher education. That reality may explain the breakdown in historical funding pattern of recessionary cuts and expansionary rebounds. In fact, the time for higher education funding to recover following recessions has lengthened for every down-

turn since 1979 with the early evidence suggesting that the recovery from the Great Recession will be no different.[57] The Great Recession instead may represent, as the American Association of State Colleges and Universities recently worried, "a somber turning point in which the major stock owner of the American public university switched hands—from that of the collective taxpayer through funding allocated by the state, to that of students and their families, through funding paid for via tuition payments."[58]

Figure 7 | **STATE GENERAL FUND EXPENDITURES, BY CATEGORY, SELECTED FISCAL YEARS, 1990-1991 TO 2010-2011**



SOURCE: *National Association of State Budget Officers, State Expenditure Report, various years.*

BOX 2

HIGHER EDUCATION FUNDING DURING THE GREAT RECESSION

According to the Center on Budget Policies and Priorities, the recession that began in late 2007 "brought about the largest collapse in state revenues on record."[1] Between fiscal years 2008-2009 and 2011-2012, states faced a combined shortfall of $431 billion, meaning that the cost of providing public services exceeded the resources available to pay for them by $431 billion. In response, states cut services, raised taxes, and used federal recovery dollars to fill budget holes.

As higher education is a discretionary budget item rather than one that states must provide regardless of economic conditions, revenue shortfalls have led most state legislatures to reduce support for higher education relative to fiscal year 2007-2008, the last year prior to the onset of the recession.

Between 2007-2008 and 2010-2011, states reduced aggregate support for higher education by $4 billion, or 5 percent. Over that period, 29 states cut funding. Additionally, almost every state used ARRA funding to offset some of the decline in state support. When ARRA dollars are included, total state funding for higher education fell by 1.5 percent between 2007-2008 and 2010-2011.

Although ARRA dollars allowed states to nearly maintain absolute levels of funding for higher education, population growth led to a reduction in support on every major relative measure. During the recession, support per capita, exclusive of ARRA funds, dropped by 7.5 percent, support per young adult by 7.9 percent, and support per $1,000 in personal income by 3.6 percent.[59] At the same time, public FTE enrollments jumped by 19.3 percent—rising from 9.7 million to 11.6 million—as both Millennials and displaced workers entered school. This meant that state support per public FTE student fell even more sharply, plunging by 22.2 percent between 2007-2008 and 2009-2010, the latest year with complete data.

State support for public higher education has historically followed the business cycle, falling during recessions and rising during recoveries. Consistent with the pattern, state support for two-year colleges and four-year universities plunged as state revenue collections cratered in the wake of the Great Recession. Recently, the larger economy has stabilized and state revenue collections have begun to rise. So, is a recovery in state support for public higher education imminent?

A recent analysis of state tax data found that state revenue collections essentially flat-lined in the third quarter of 2008 and contracted for four straight quarters.[2] Tepid revenue growth resumed in 2010 and accelerated through mid-2011. If state support for higher education tracked the business cycle, funding should have fallen in 2009-2010 and 2010-2011 and have begun to rebound in 2011-2012. Unfortunately, that has not happened, based on a review of advance *Grapevine* data for 2011-2012 from the Center for the Study of Education Policy at Illinois State University.

This report generally relies on *Grapevine* data through 2010-2011, the last year for which complete data existed at the time of writing. In January 2012, advance data appeared for 2011-2012. Alarmingly, the preliminary findings point to reductions in state support even greater than first thought. Between 2007-2008 and 2011-12, total real support for public higher education (excluding ARRA) fell by $8.9 billion, or 11.1 percent, with funding dropping in 38 states.[3]

The preliminary figures also contain no signs of a rebound in 2011-2012 despite mild improvements in economic conditions. States instead reduced funding by $4.8 billion, or 6.4 percent, over the year. Because most states already had expended all of their ARRA funding, they had no federal aid with which to offset the cuts. The situation for 2012-2013 currently looks no better. In fact, revenue collections in 35 states still remain below their pre-recessionary levels. This makes a significant funding recovery unlikely; in fact, more cuts are possible unless elected officials move to address issues of revenue reform and adequacy.

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1. Elizabeth McNichol, Phil Oliff, and Nicholas Johnson, States Continue to Feel Recessions Impact (Washington, DC: Center on Budget and Policy Priorities, 2012), 1 and 10, updated January 9, 2012, http://www.cbpp.org/cms/?fa=view&id=711

2.Lucy Dadayan, Tax Revenues keep Rising, But Growth Again Ticks Downward (Albany, NY: Rockefeller Institute, 2012), 5 and 15, http://www.rockinst.org/pdf/government_finance/state_revenue_report/2012-01-26-SRR_86.pdf

3. Author's analysis of Center for the Study of Education Policy, "Table 1: State Fiscal Support for Higher Education, by State, Fiscals Years 2006-07, 2009-10, 2010-11, and 2011-12," http://grapevine.illinoisstate.edu/tables/FY12/Table%201.pdf

PATTERNS IN TUITION AND FINANCIAL AID

State support has traditionally covered only a portion of the operating costs of public colleges and universities. The remaining revenues come from other sources such as federal appropriations, government contracts, investment earnings, and, crucially, tuition and fees. As state support has declined, institutions have balanced the funding equation by charging students more. Between 1990-1991 and 2009-2010, published prices for tuition and fees at public four-year universities more than doubled, rising by 112.5 percent, after adjusting for inflation, while the real price of two-year colleges climbed by 71 percent.[60] The increasing prices for students and their families follow the loss of state support, as tuition and fees must cover an increasing share of operating costs. Concurrently with the rise in tuition, many states reoriented their financial aid programs away from need-based assistance, to merit-based aid, which favors wealthier students. Such changes shifted costs to students who not only pay more than did their counterparts in the early 1990s but also borrow more extensively to finance their educations. This section shows how state disinvestment in public higher education has weakened financial aid systems and has shifted costs to students in the form of rising tuition.

THE HIGHER EDUCATION COST EQUATION

The provision of public higher education is an expensive undertaking due to the extensive human and physical resources involved with operating campuses and educating students. When it comes to financing undergraduate instruction, public institutions long have relied on two main revenue streams: state support and student charges. Assuming costs hold constant, increases in public support enable institutions to reduce prices, while cuts create pressures to raise prices. In sum, state support acts as a subsidy defraying costs that otherwise would fall on students.[61]

Students, meanwhile, cover the prices charged to them in numerous ways. Based on information provided as part of the financial aid process, a student may qualify for institutional aid that lowers the actual price charged below the published rate. According to the College Board, the average net price, or what a full-time

undergraduate student must pay after subtracting grant aid and tax benefits, for tuition, fees, and room and board charged by public-four year universities to full-time undergraduate students for the 2011-2012 academic year was $11,380 versus a published price of $17,131. The comparable price charged to full-time undergraduate students at public two-year colleges equaled $6,600 compared to a "sticker price" of $10,373.[62] To pay the remaining amount, which is higher than these averages because other costs such as transportation, books and supplies are not included, a student may draw on savings, receive family assistance, work, or borrow funds. Remember, too, that the cost of attendance calculated during the financial aid process may not necessarily reflect actual costs, especially for older students or those with families of their own who have additional expenses such as child care.[63]

The typical way in which public institutions have responded to the reductions in state support described in section 2 is by raising tuition and fees. Yet it is difficult to raise tuition enough to offset cuts in state support, as "a given percentage reduction in state appropriations requires a much larger percentage increase in tuition, since state appropriations continue to represent a much larger share of public university revenue than tuition."[64] Another option would be to reduce the cost side of the equation "through changes in staffing structures, looking at how tenured faculty are used for teaching, by paring back benefit structures that aren't sustainable, and through economies of scale for academic and institutional support."[65] Although institutions' efforts to reduce the cost of higher education should be a central strategy for cost reduction, this strategy cannot singly compensate reductions in state support, at least not without compromising the quality of public education, especially given the rise in enrollments. Therefore, state cuts typically result in rising tuition and fees, which have prompted what seemingly resembles "an irreversible slide of U.S. public higher education being a collectively-funded public good to that of an individually purchased private good."[66]

TUITION TRENDS, 1990-1991 TO 2009-2010

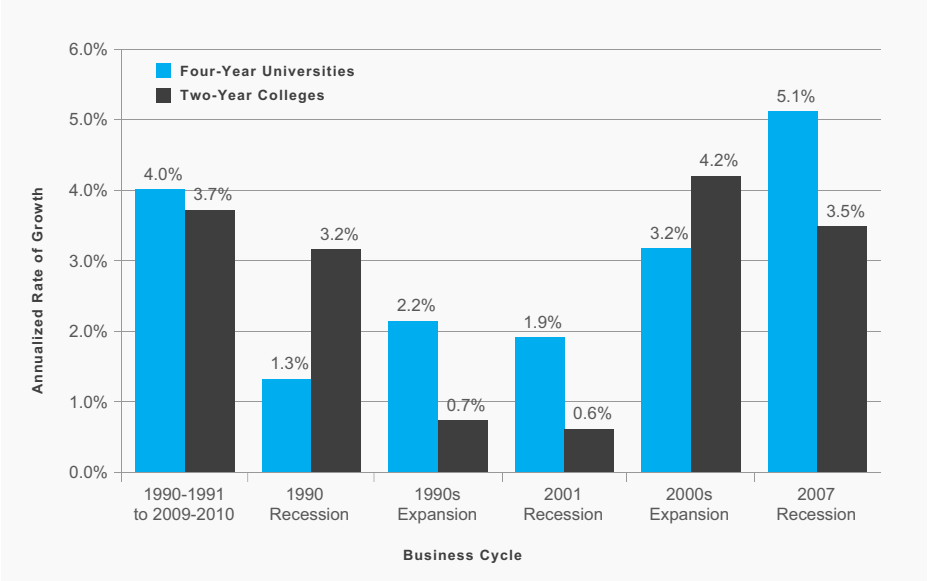
In 1990-1991, published annual charges for tuition and fees at public four-year universities equaled $3,150, after adjusting for inflation, while tuition and fees at two-year institutions totaled $1,336. Twenty years later, the published charges at public four-year institutions had risen to $6,695 and those at two-year colleges had climbed to $2,285. Increases occurred for both kinds of institutions in every state **(Table A5)**. In most states, tuition increased more in absolute terms at four-year universities with two-year colleges logging faster rates of growth.

While state support for higher education has fluctuated with the business cycle, published tuition rates have increased steadily, although more so in response to reductions in state funding. As alluded to earlier, this is in part because percentage declines in state funding require even greater percentage increases in tuition, which are difficult to implement in a short period of time. The failure of state appropriations to return to their pre-recession levels since 2001 has also contributed to this trend. Tuition increases in 2009, for example, were less than half the amount of reductions in state and local support, which translated into less spending at institutions that were least able to cushion the cuts with other revenue, such as community colleges.[67]

Thus, although four-year institutions experienced slower tuition growth during recessions, the price increases never fully abated. At four-year institutions, published charges rose at an annualized rate of 4 percent between 1990-1991 and 2009-2010, the most recent year with complete data **(Figure 8)**. The comparable rate at two-year institutions was 3.7 percent. The patterns differed between two-year and four-year institutions.

At four-year institutions, published charges rose by 1.3 percent per year during the 1990 recession and then increased at an annualized rate of 2.2 percent during the 1990s expansion. After rising 1.9 percent during the 2001 recession, charges grew at an annualized rate of 3.2 percent during the 2000s expansion. Since 2001, charges have increased at a rate of 5.1 percent per year. At two-year colleges, in contrast, tuition and fees grew at an annualized rate of 0.7 percent during the 1990s expansion, compared to a rate of 4.2 percent per year during the 2000s expansion. Since 2007, tuition has risen 3.5 percent per year.[68]

Figure 8 | **ANNUALIZED RATES OF GROWTH IN AVERAGE ANNUAL PUBLISHED CHARGES, PUBLIC INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTIONAL TYPE AND BUSINESS CYCLE, ACADEMIC YEARS 1990-1991 TO 2009-2010**



* **NOTE:** *Published charges for four-year universities include tuition, fees, room and board; for two-year colleges, published charges include tuition and fees only.*
SOURCE: *National Center for Education Statistics, Digest of Education Statistics, various years.*

Consider the experience of California, a state with an extensive system of public higher education that currently enrolls approximately one-of-every-six public college students. From 1990-1991 to 2009-2010, the published annual price for tuition and fees at the Golden State's universities grew by an average of 6.8 percent per year, or 211.6 percent in all. In dollar terms, published charges went from $2,100 to $6,543. Tuition rose sharply in the wake of the 1990s recession and then declined during the ensuing expansion. Since 2001, however, rates of annual growth have increased in each business cycle and now are rising at a rate of 7.1 percent per year. During that same period, published yearly tuition and fees at the state's two-year colleges rose at an annualized rate of 9.6 percent, or 287.6 percent over the entire period, which pushed the published price from $194 to $754.[69]

Acceleration in the rate of tuition increases has occurred alongside the entry of the Millennial generation into the college age range. The oldest Millennials turned 18 in 2000, a year in which the average annual published charges for tuition, fees, and room and board at public four-year institutions totaled $10,710, after adjusting for inflation. In the nine years prior to 2000-2001, published tuition rose by 20.3 percent, but in the subsequent nine years, tuition climbed by 40.1 percent. Such increases have proven even more sudden at public two-year colleges, which now are educating more than half of the nation's undergraduate students. In the nine years prior to 2000-2001, the published charges for tuition and fees (only) at two-year colleges grew by 12.7 percent, or $186, after adjusting for inflation; since then, published charges have risen by 38.4 percent, or $634.[70]

While published prices at two-year colleges still appear low relative to four-year universities, the numbers are misleading in at least two respects. First, tuition and fees data fail to capture the total cost of attending college, which includes housing, transportation, food, books, supplies and other basic expenses. The

College Board estimates that tuition and fees represented just 18 percent of the total education budget of a full-time student at a two-year college in 2009-2010, which brought the actual price of attendance closer to $14,285.[71] Second, because students at two-year institutions are more apt to come from families with modest incomes, they may be much more sensitive to changes in prices. A tuition rise that appears moderate to an affluent household may represent a significant hardship to a student with fewer resources. In response, strained students may abandon their studies altogether, incur more debt, or work more hours in paid jobs, even though increases in the number of hours worked detract from academic performance and reduce the odds of completing a course of study.[72]

FINANCIAL AID TRENDS, 1990 TO PRESENT

Though states are relatively small players compared to the federal government, their collective contribution is nevertheless sizeable and should target the students most in need of assistance. According to data compiled by the College Board for 2010-2011, federal, state, private, and institutional sources provided $177.6 billion in undergraduate financial aid, with the federal government extending 74.5 percent of the total. Slightly more than half of the $132.3 billion in federal aid took the form of loan programs open to students at all income levels, a little more than a third in the form of grants targeted at low-income students, and the rest in the form of tax incentives that tend to benefit more affluent families.[73]

In many states, the tuition hikes of the past 20 years have occurred alongside expansions in state-sponsored financial aid programs. Between 1990-1991 and 2009-2010, the aggregate investment in state grant and loan programs more than tripled, rising to $10.8 billion from $3.5 billion; over that period, all but four states boosted investment in aid programs **(Table A6)**.[74] Additionally, many states adopted or expanded tax incentives that subsidize higher education costs as well as early savings for college. New York, for example, allows undergraduate students or their parents to deduct up to $10,000 in qualified tuition expenses on their income taxes or claim a refundable tax credit of up to $400; Empire State families also may participate in a subsidized college savings program.[75]

Increases in available resources for financial aid, however, have occurred alongside a reorientation of the financial aid system away from need-based grant aid—aid that is awarded based on a student's available financial resources and that a student is not required to repay. In 1990-1991, grant programs accounted for 89.7 percent of all state-sponsored financial aid with 87.9 percent of grant funds allocated on the basis of need. Twenty years later, grant programs received 82.3 percent of all state financial aid dollars, with 72.6 percent of grant funds awarded on the basis of need. Had the proportions held steady, all else equal, states would have provided $8.5 billion in need-based grant aid in 2009-2010 compared to $6.4 billion.[76]

While states are investing more in state-sponsored aid than was the case in the early 1990s, more of that aid is taking the form of merit aid, which is assistance awarded irrespective of a student's financial situation. No state-based merit aid program existed until 1993, when Georgia established its Helping Outstanding Pupils Educationally (HOPE) Scholarship Program. Using proceeds from the state lottery, the HOPE program provides scholarships to graduates of Georgia high schools who have strong grades, enroll in a Georgia-based institution, and satisfy academic performance requirements; in 2007-2008, the average scholarship was $4,400. By 2007-2008, some 27 states operated merit aid programs for undergraduates with 10 states—South Dakota, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, Florida, New Mexico, Nevada, and Idaho—awarding at least half of all state-sponsored aid based on merit.[77] As **Table A6** shows, need-based aid accounted for at least 90 percent of the state-sponsored aid awarded in California, Illinois, Iowa, New Hampshire, Pennsylvania, Rhode Island, Vermont, Wisconsin, and Wyoming in 2009-2010.[78]

Compounding disinvestment in need-based aid at the state level is the reorientation of federal assistance away from grant aid. Even with the recent increases in the average and maximum values of aid delivered through the Pell Grant program, the main federal assistance program for low-income students, the awards cover a decreasing share of the cost of attending a four-year public university. Between 1991-1992 and 2011-2012, the maximum Pell grant award went from covering 44 percent of the annual cost to 32 percent.[79] Moreover, the forms of federal financial aid that have grown in recent years, tax credits in particular (with the exception of the American Opportunity Tax Credit), are not designed to benefit students from low-income families with little or no federal income tax liability.

CHALLENGES FOR STUDENTS, FAMILIES, AND STATES

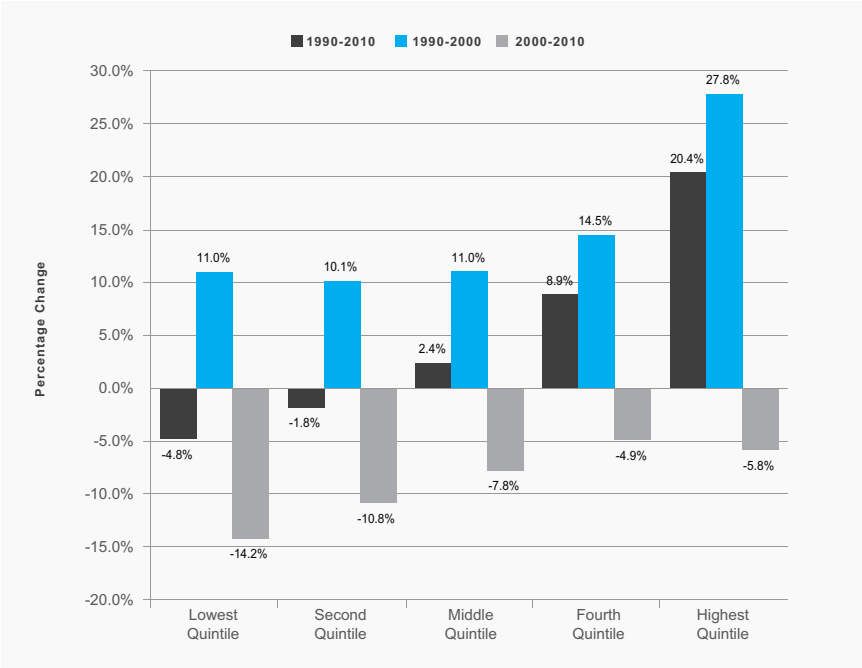
The steady escalation in college prices has occurred alongside the stagnation in the incomes of most American households. Median household income in the United States in 2010 was just 2.1 percent higher than in 1990. Although incomes increased briskly for all income groups during the 1990s, the two recessions of the 2000s erased those gains for all but the most affluent households.[80] In the face of flat incomes, it is proving difficult for students of modest means to afford postsecondary education without engaging in actions that decrease their odds of completing a course of study or severely constraining their future options. This section examines the financial condition of low- and moderate-income Americans and how rising college costs, stemming in part from state disinvestment, impact college access and completion.

STAGNANT INCOMES, HIGHER PRICES

While the American economy has grown since the late 1980s, the benefits of that growth have largely bypassed middle- and low-income households. Between 1990 and 2010, the real average income of households in the middle fifth of the income distribution climbed to $49,309 from $48,161, an increase of $1,148, or 2.4 percent **(Figure 9)**. During that same period, the average annual income of the poorest fifth of families dropped by 4.8 percent, and the households in the second poorest fifth of the income distribution experienced a 1.8 percent decline. Income gains accrued almost exclusively to the top fifth of households, or those with an average income of almost $170,000 in 2010, with some growth also occurring among somewhat less affluent households.[81]

Overall changes in household income mask significant variations by decade. During the 1990s, the time when the small, late Generation X cohort was pursuing higher education, average annual incomes rose for every income group. For example, the average annual income of middle-income households dipped following the recession of the early 1990s before rising every year between 1994 and 2000; this translated into a cumulative gain for the decade of 11 percent. The incomes of the lowest-income households followed a similar path. The 2000s, however, saw a reversal in that pattern. Between 2000 and 2010, the average income of every income group declined with the greatest relative declines occurring among low-income households. During the 2000s, the time when the large Millennial generation began to reach college age, the average incomes of the poorest fifth of households shrank by 14.2 percent, falling to $11,304 from $12,860, compared

Figure 9 | **CHANGES IN AVERAGE ANNUAL HOUSEHOLD INCOME, BY QUINTILE, UNITED STATES, SELECTED PERIODS, 1990-2010**



*NOTE: *The Census Bureau measures household income according to the concept of money income.*

SOURCE: *US Census Bureau, Income, Poverty, and Health Insurance Coverage in the United States, 2010, 41-42.*

to a 5.8 percent drop among the richest fifth of households. In sum, the 2000s erased all of the income gains recorded in the 1990s by the bottom 40 percent of American households, along with almost all of the gains experienced by the middle 20 percent.[82]

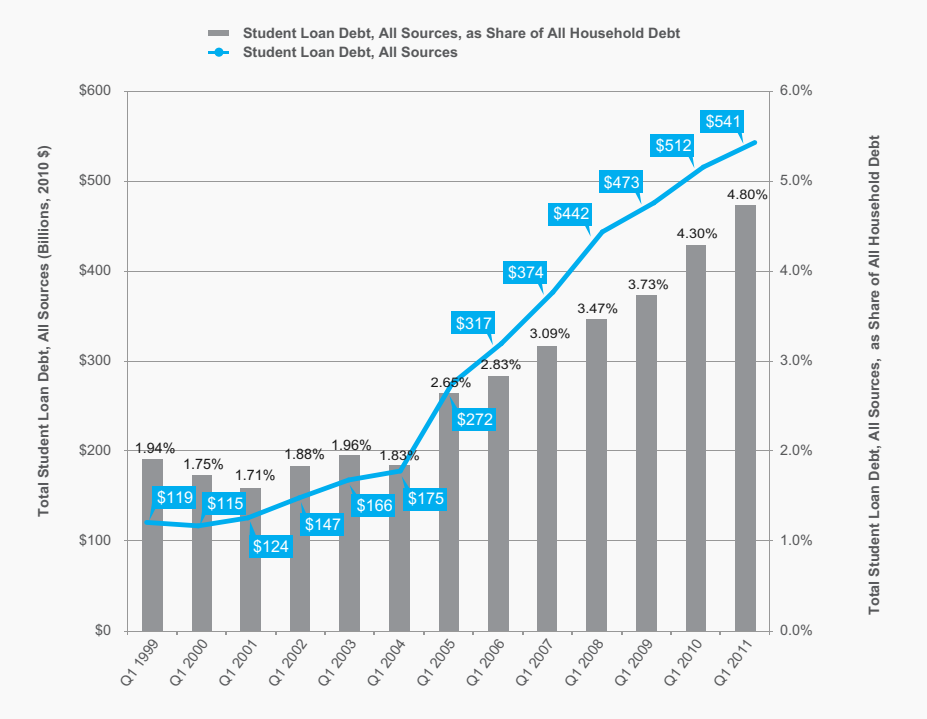
Although the incomes of the bulk of American households stagnated over the past two decades, the price of higher education escalated steadily, as detailed in Section 3. College costs therefore consume a greater proportion of the incomes of middle-income families than in the early 1990s. As **Table A7** shows, the average published price of tuition, fees, room and board at four-year universities equaled 30.4 percent of median household income in 2010, up from 18.1 percent in 1991. At two-year colleges, the published price of tuition and fees, along with an allowance for estimated living costs, was the equivalent of 25.7 percent of a middle-income family's 2010 income versus 15.8 percent in 1991.[83] Increases occurred for two-year and four-year institutions in every state.[84] And such patterns exist even when analysts consider net prices, which reflect the receipt of grant aid, instead of published prices. Data from the College Board indicate that net tuition, fees, room and board at public four-year institutions equaled 20.4 percent of a middle-income family's income in 2010, compared to 14.8 percent in 2005.[85]

The failure of financial aid to keep pace with rising tuition costs and the reduction in grant aid has exacerbated the challenges associated with financing rising tuition and fees, especially for students from low-income families. To bridge the gap, students are increasingly borrowing from federal loan programs and private sources like banks. Data from the National Center for Education Statistics show that 28.5 percent of undergraduate students enrolled in public four-year universities in 1989-1990 borrowed through the federal Stafford Loan program, the nation's main source of student loans, with the average student borrowing $7,200 after adjusting for inflation. In 2007-2008, 52.6 percent of such students took out Stafford Loans with the typical student borrowing $11,100. A similar trend has unfolded at two-year colleges, where the share borrowing through the Stafford Loan program jumped to 23.8 percent from 11.7 percent, with the average inflation-adjusted amount borrowed rising to $7,700 from $5,600.[86]

Not only did more undergraduate students take out Stafford Loans in 2007-2008 than in the early 1990s, but also more of those students—39.7 percent of four-year university students and 9.4 percent of two-

year college students—borrowed the maximum amount for which they were individually eligible. Furthermore, due to a series of increases in borrowing limits, students can actually borrow more money through the program than in the past: a maximum of $34,000 in subsidized and unsubsidized Stafford loans as opposed to $30,000 in the late 1980s (in 2010 dollars).[4] Even with those higher limits, students still frequently need more funding, and as a result, they take out other loans, either through other federal programs or from the private sector. In 2007-2008, 25 percent of public four-year university students who maxed out their Stafford Loan eligibility took out private loans while 18 percent relied on additional borrowing on the part of their parents. The figures for comparable students at two-year colleges were 17 percent and 3 percent, respectively.[87]

Figure 10 | **TOTAL STUDENT LOAN DEBT, ALL SOURCES, UNITED STATES, Q1 1999 TO Q1 2011**



*NOTE: *In 2011, the Federal Reserve Bank of New York concluded that its data products had been undercounting outstanding student loan debt. New procedures were implemented starting in Q2 2011. but historical data now are unavailable. This chart relies on the old data series to show broad trends.*

SOURCE: *Federal Reserve Bank of New York, Quarterly Report on Household Debt and Credit, May 2011.*

While states and the federal government are investing more in financial aid than in the past, those increases have failed to keep pace with the steady rise in tuition and fees triggered by cuts in direct support to public colleges and universities. Students therefore have turned to debt as a means of bridging the gap between attendance costs and available financial aid resources. It is unsurprising, then, that the volume of outstanding student loan debt has grown by a factor of 4.5 since 1999 and that Americans now collectively owe more in outstanding student loan debt than credit card debt **(Figure 10)**.[88] This development has further exacerbated the financial and educational challenges facing students seeking a place in America's broad middle class.

OBSTACLES TO COLLEGE COMPLETION

As discussed in Section 1, the demographic profile of today's college students differs greatly from those who came of age in the 1990s. Not only are more students attending college due to the combination of larger population sizes and higher enrollment rates, but the backgrounds of the students also are more diverse. Critically, more students come from low- and moderate-income families—the very families most affected by the income stagnation mentioned earlier. Such students are extremely sensitive to even seemingly modest increases in college prices, with financial pressures reducing the odds that a student will complete a program of study.

The main ways in which low-income students, particularly those enrolled at two-year colleges which tend to attract low-income students due largely to their comparatively low tuition charges, attempt to finance their educations are by working and enrolling on a part-time basis. A 2009 study by Dēmos found that 84 percent of young adults enrolled in public two-year colleges worked in 2007-2008. Of the two-year college students who worked, two-thirds worked at least 21 hours a week. Similarly, financial reasons motivated more students to enroll on a part-time basis, with 58 percent of all young two-year college students studying part-time in 2007-2008. Yet part-time enrollment and employment are associated with the chances that a student will fail to earn a degree or credential; in fact, 51 percent of part-time two-year college students failed to graduate within three years, as did 39 percent of those who worked full-time.[89]

Even when students persevere in a course of study, reductions in state support for higher education may affect the quality of the instruction received. While education quality is difficult to measure, reductions in state support may depress faculty compensation levels relative to those found at private or for-profit institutions, resulting in less-qualified instructors. Similarly, increases in class sizes may cause students to receive less personalized instruction, while reductions in course offerings may limit a student's ability to take needed courses on schedule. Finally, reductions in supportive services like academic tutoring and career counseling may disadvantage individuals who have special needs or who are at-risk of failing to complete a program of study.

Altogether, such factors detract from college completion. On average, 54.4 percent of all undergraduates who enrolled at a four-year university between 1994 and 2003 graduated within six years of starting. At two-year colleges, only 29.4 percent of first time students graduated within three years of enrollment. More alarmingly, completion rates did not change radically between the 1990s and 2000s **(Table A8)**. While four-year college completion improved somewhat in most states, no one had a completion average greater than 68.4 percent. Average two-year college completion rates actually declined in 27 states between the 1990s and 2000s, with 10 states posting completion rates at or below 20 percent. Ironically, while every state experienced enrollment increases during the 2000s, the share of students completing their educations has not kept pace, particularly at two-year institutions.[90]

FUTURE PROSPECTS FOR STUDENTS

Even students who do complete higher education face challenges different from those who graduated in the 1990s. First, today's students leave school with more debt. In fact, 56 percent of the seniors who graduated from public four-year universities during 2009-2010 had student loans worth an average of $22,000, an amount 11 percent greater than the average inflation-adjusted loan balance owed by students who graduated in 1999-2000, a year in which 59.4 percent of graduating seniors from public four-year institutions had loans.[91] While two-year college students are less apt to borrow (just 13 percent had loans in 2007-2008), those who borrow are more likely to use expensive private loans.[92] Second, today's graduates are entering a distressed job market; in 2010, the 9.1 percent unemployment rate among young college graduates was the highest on record.[93] With jobs scarce, college graduates with debt are struggling to meet their financial obligations—a fact reflected in recent upticks in default rates for student loans.[94] Given the weakness of the current recovery, such challenges likely will continue into the future.

CHALLENGES FOR STATES

As mentioned at the outset of this report, the pursuit and completion of higher education enriches not just individuals but society as a whole. Businesses and the larger economy prosper from access to skilled workers, just as communities reap dividends from the high levels of volunteerism, voting, and civic engagement

common among graduates. This combination of personal and social benefits explains why the public sector, states in particular, long have invested generously in public two-year colleges and four-year universities and have endeavored to ensure that, to borrow from the North Carolina State Constitution, "higher education, as far as practicable, be extended to the people of the State free of expense."[95]

Going forward, the imperative to invest in higher education will grow more pronounced. Researchers from Georgetown University's Center on Education and the Workforce project that 63 percent of the jobs that the country will add by 2018 will require workers with some kind of postsecondary educational credential. Forecasts suggest that a majority of the jobs expected to exist in every state in 2018 will require some level of postsecondary education, ranging from a low of 51 percent in Louisiana to a high of 71 percent in the District of Columbia.[96] States that find themselves unable to produce enough qualified graduates will likely find themselves at a competitive disadvantage and unable to tap their full economic potential.

POLICY RECOMMENDATIONS

Over the past 20 years, public higher education has undergone a radical transformation. While higher education has become more important to the economic prospects of young adults and while more young adults have elected to pursue higher education, states have reduced their investments in higher education and have shifted costs to students. Simultaneously, a radical reorientation of the financial aid environment has exacerbated the financial pressures on students, many of whom live in families coping with the pernicious effects of income stagnation and the Great Recession. The combination of higher costs, flat incomes, and shifts in financial aid has led many students to rely more heavily on borrowing to finance their educations, even though weak labor market conditions are making it harder for many students to pay those debts.

Unfortunately, these pressures will only grow more pronounced in future years. State budgets remain battered by the effects of the most recent recession, and the federal aid that helped stabilize higher education budgets has ended. Family incomes continue to stagnate owing to the lack of a meaningful economic recovery. Yet enrollment levels continue to rise due to the ongoing aging of the Millennial generation into the college age range. Forecasts suggest that the number of 18-to-24-year-old college students will rise by 15.9 percent between 2009 and 2019. Such dynamics are unfolding in virtually every state.

States clearly have reached a turning point in their relationship to public higher education, and the policy choices of the next few years will determine the extent to which public institutions of higher education continue to function as a bridge to the middle class for young adults, especially those from low- and moderate-income backgrounds. Going forward, public leaders should consider the following seven recommendations when weighing investments in public higher education.

First, state leaders should **renew their commitment to public higher education**. State governments long have supported higher education due to the combination of personal, economic, and social benefits intertwined with the pursuit of education beyond high school. Moreover, American society long has viewed higher education as a broad avenue for social mobility. By disinvesting in public higher education over the past 20 years, states have effectively narrowed the pathway into the middle class and have deprived the larger economy and society of the benefits associated with higher education. Irrespective of the budget challenges of recent years, every state is wealthier than was the case in 1990-1991. They should invest more

of their wealth in higher education despite, especially given the growth in student enrollments—growth that will not abate anytime soon.

Second, states should **view support for higher education in light of the adequacy of their overall revenue systems**. State support for public higher education has traditionally fallen during recessions only to rebound during recoveries. Unfortunately, the traditional pattern appears to have ceased in many states, at least since the 2001 recession. This is attributable in part to the outdated nature of too many state revenue systems and their inability to generate the revenues needed to support the full range of services demanded by citizens. While the provision of federal aid under the Recovery Act helped to mitigate that reality during the Great Recession, the expiration of federal aid, coupled with ongoing revenue shortfalls, will likely leave public higher education vulnerable to future waves of funding reductions and tuition increases. Absent comprehensive tax reform, many states will squeeze higher education budgets further, shifting even more costs to cash-strapped students and families, and forego the economic and social benefits associated with a highly skilled workforce.

Third, states need to **focus on the entire population of postsecondary students and its characteristics**. In many statehouses, discussions of higher education policy tend to revolve around issues related to research-intensive, four-year, flagship universities. Such institutions are important, yet they educate a small fraction of college students. Most students actually enroll in two-year colleges and non-doctoral universities. Similarly, public leaders must recognize the extent to which student bodies have changed, in terms of both actual numbers and demographic composition. A different student body requires different sorts of services and supports.

Fourth, states must **recognize the consequences of constant tuition increases**. Higher education institutions have the ability to generate revenues from users in the form of tuition and fees to offset reductions in state subsidies. Yet the tuition solution is an imperfect one. Because state appropriations generally contribute a much larger share of public university revenue than tuition, any specific percentage reduction in state aid requires much larger percentage rises in tuition. Such increases price low- and moderate-income students out of higher education, while also eroding state support for higher education. As a result, educational quality may erode, and some students forego higher education entirely.

Fifth, states should **align investments in higher education with the goal of completion**. The policy debates surrounding public higher education over the last 20 years has focused narrowly on matters of subsidy levels and student prices. Missing from the debate has been serious consideration of institutional costs and institutional success. Though states have succeeded in enrolling more students in higher education, enrollment is not a goal in itself; the real payoff to higher education comes from completion, yet completion rates in many states remain low, particularly at two-year colleges. Rather than handing colleges and universities blank checks, states should organize their investments in undergraduate education around the goal of completion. This likely will require considering the cost side of the equation and better targeting available resources to the kinds of services that students need to earn the degrees and credentials essential for success in the labor market.

Sixth, states should **reorient their financial aid policies back toward need-based aid**. Although there is nothing inherently wrong with awarding some financial aid on the basis of merit, the current aid framework that exists in many states prioritizes merit aid to the near exclusion of need-based aid. This creates situations in which public resources intended to promote college access benefit the students most apt to

afford higher education without the assistance. Students of modest means who actually need the financial aid, in contrast, receive little help. This is especially true for students at two-year institutions since merit aid programs generally target students attending four-year universities.

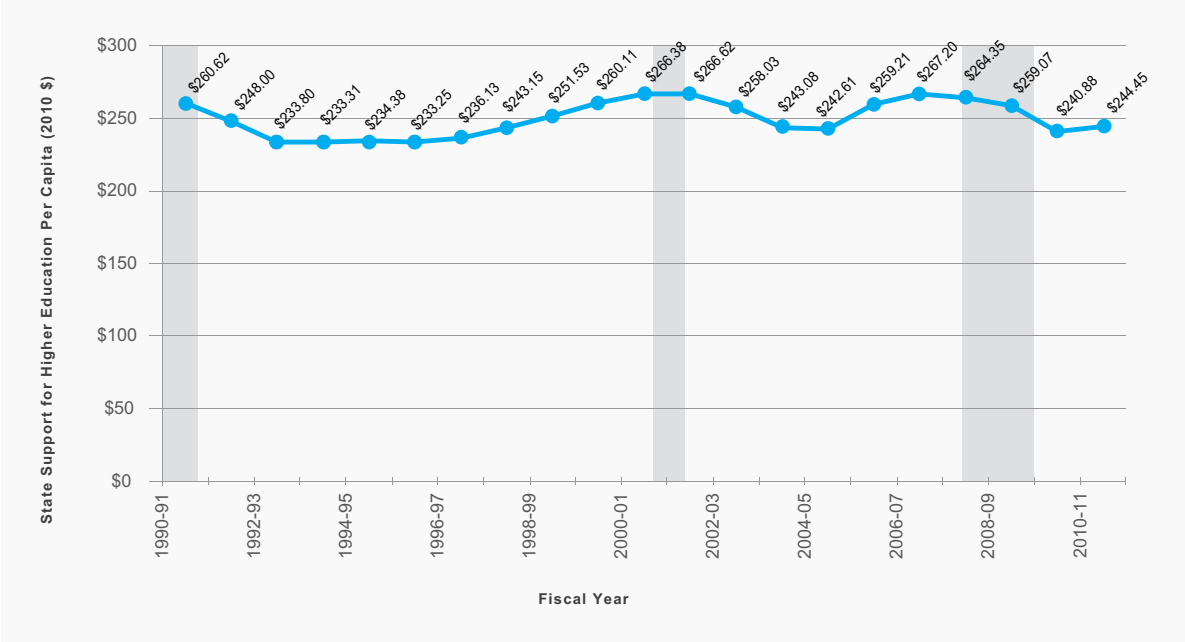
Finally, states should **think more systematically about how they incorporate borrowing into financial aid programs**. Higher education is an investment with the potential to pay lifelong dividends, and consequently, a prudent use of debt can be an intelligent financing strategy on the part of students. In recent years, however, debt has become the default option for financing higher education, meaning students are graduating with debt loads that are proving especially difficult to manage, especially in light of the current poor job market. Those debt burdens can severely limit future options. States therefore should take efforts to regulate the use of debt and to steer students toward more affordable sources of debt like the federal student loan program.

CONCLUSION

The completion of postsecondary education has become a minimum requirement for young adults seeking a place in America's middle class. In response to this development, increasing numbers of young adults are enrolling in the nation's public two-year colleges and four-year universities. Ironically, at the same time that more students are pursuing higher education, states are collectively investing less in young college students today than they did 20 years ago. On one level, this is unsurprising in light of the budget challenges facing most states, yet every state is wealthier now than in the early 1990s and has the capability to invest more. States also have an imperative to invest more given that the youngest members of the sizable Millennial generation will not pass out of the college age range until 2024. Disinvesting in public higher education is a strategy that may realize immediate savings yet impose long-term costs in the forms of decreased social mobility, a diminished middle class, and a decline in long-term economic prosperity.

APPENDIX

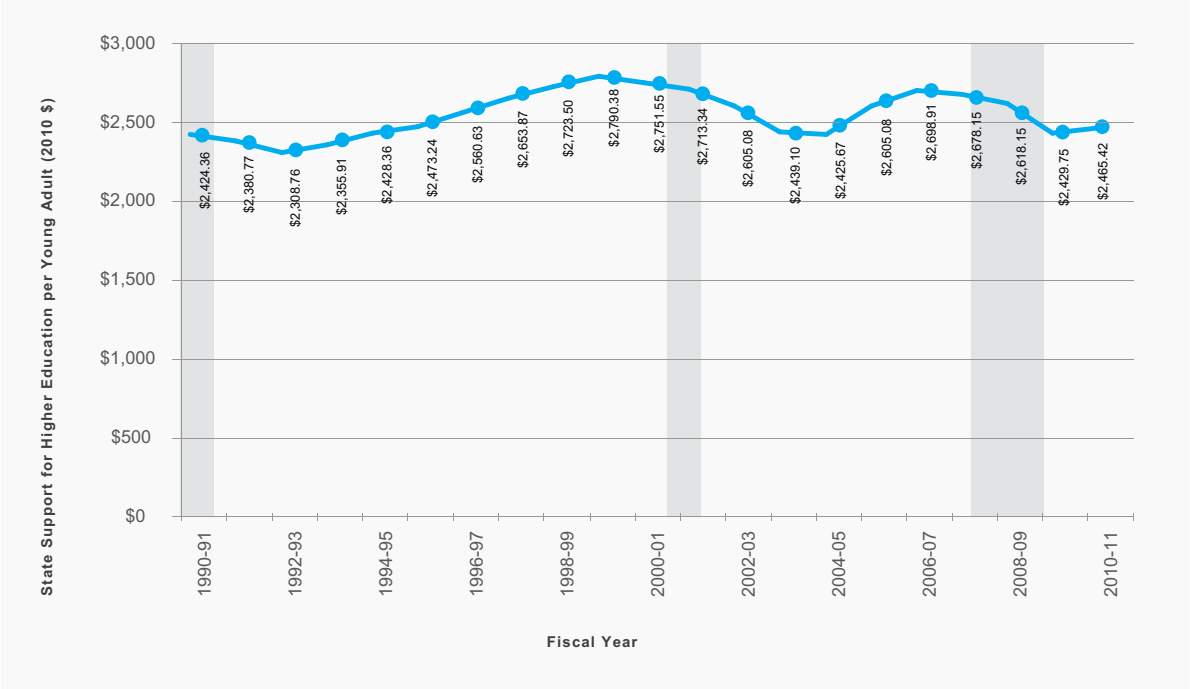
Figure A1 | **STATE SUPPORT FOR HIGHER EDUCATION PER CAPITA, UNITED STATES, FISCAL YEARS 1990-1991 TO 2010-2011**



*NOTE: *Shaded areas indicate recessions. ARRA funds not included.*

SOURCE: *Author's analysis of Grapevine data, various years; and US Bureau of Economic Analysis, Personal Income Summary, various years.*

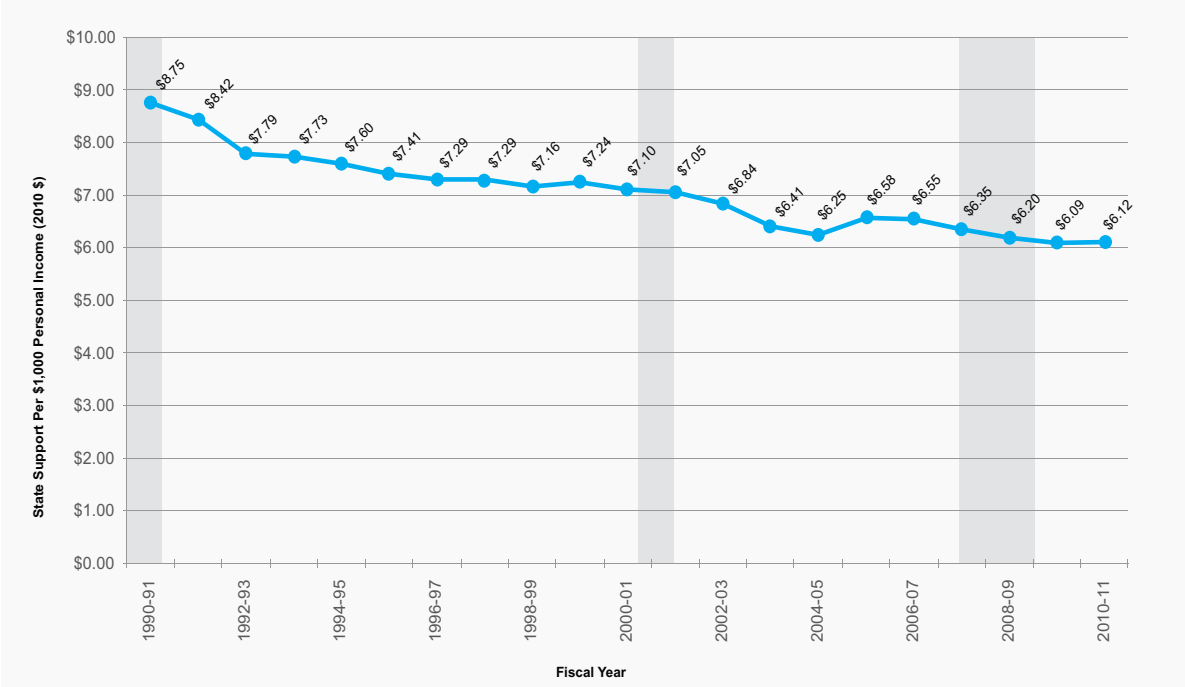
Figure A2 | **STATE SUPPORT FOR HIGHER EDUCATION PER YOUNG ADULT (AGES 18-24), UNITED STATES, FISCAL YEARS 1990-1991 TO 2010-2011**



*NOTE: *Shaded areas indicate recessions. ARRA funds not included.*

SOURCE: *Author's analysis of Grapevine data, various years; and US Census Bureau, various years.*

Figure A3 | **STATE SUPPORT FOR HIGHER EDUCATION PER $1,000 PERSONAL INCOME, UNITED STATES, FISCAL YEARS 1990-1991 TO 2010-2011**



*NOTE: *Shaded areas indicate recessions. ARRA funds not included.*

SOURCE: *Author's analysis of Grapevine data, various years; and US Bureau of Economic Analysis, Real Personal Income, various years.*

Table A1 | **CHANGE IN YOUNG ADULT POPULATION (AGES 18-24), BY STATE, 1990-2010**

	Numerical Change		Percentage Change	
State	Change	Rank (1=Greatest)	Change	Rank (1=Greatest)
United States	3,934,322	-	14.7%	-
Alabama	35,840	24	8.1%	30
Alaska	19,034	32	34.1%	11
Arizona	240,531	4	61.3%	2
Arkansas	47,049	21	19.8%	16
California	510,694	3	15.0%	23
Colorado	152,173	8	45.4%	5
Connecticut	-18,774	48	-5.4%	49
Delaware	14,672	34	19.2%	19
District of Columbia	4,457	42	5.4%	35
Florida	524,000	2	43.1%	6
Georgia	231,573	5	31.4%	14
Hawaii	9,127	40	7.5%	32
Idaho	56,171	18	57.2%	4
Illinois	33,357	27	2.8%	40
Indiana	45,428	22	7.5%	33
Iowa	22,154	31	7.8%	31
Kansas	33,666	26	13.2%	27
Kentucky	12,812	37	3.2%	38
Louisiana	10,020	39	2.2%	42
Maine	-7,700	45	-6.2%	51
Maryland	51,987	19	10.3%	29
Massachusetts	-31,211	50	-4.4%	48
Michigan	-30,638	49	-3.0%	46
Minnesota	59,990	16	13.5%	26
Mississippi	11,488	38	3.9%	37
Missouri	72,073	14	13.9%	25
Montana	24,600	30	35.1%	9
Nebraska	26,640	29	17.1%	22
Nevada	129,884	9	109.2%	1
New Hampshire	5,512	41	4.7%	36
New Jersey	-11,956	47	-1.5%	45
New Mexico	51,715	20	34.1%	12
New York	30,093	28	1.5%	43
North Carolina	157,565	7	20.2%	15
North Dakota	13,167	36	19.4%	18
Ohio	-36,927	51	-3.2%	47
Oklahoma	59,797	17	18.6%	20
Oregon	91,250	11	34.1%	10
Pennsylvania	34,606	25	2.8%	39
Rhode Island	-389	44	-0.3%	44
South Carolina	69,919	15	17.2%	21
South Dakota	13,426	35	19.7%	17
Tennessee	78,709	13	14.9%	24
Texas	682,125	1	36.1%	8
Utah	118,043	10	59.0%	3
Vermont	1,707	43	2.7%	41
Virginia	82,368	12	11.4%	28
Washington	161,514	6	33.1%	13
West Virginia	-10,992	46	-6.1%	50
Wisconsin	36,930	23	7.2%	34
Wyoming	15,043	33	36.3%	7

SOURCE: *US Census Bureau, Decennial Census, 1990 and 2010.*

Table A2 | **SELECTED CHARACTERISTICS OF YOUNG ADULT POPULATION (AGES 18-24), BY STATE, 2010**

	Totals			Racial/Ethnic Composition				Geographic Distribution			
State	# Young Adults	% of State Population	% of All Young Adults	% White, Non-Hispanic	% African American, Non-Hispanic	% Hispanic	% Asian	% of All Young White, Non-Hispanics	% of All Young African American, Non-Hispanics	% of All Young Hispanics	% of All Young Asians
United States	30,672,088	9.9%	100.0%	57.2%	14.3%	20.1%	5.0%	100.0%	100.0%	100.0%	100.0%
Alabama	479,175	10.0%	1.6%	60.4%	35.4%	7.3%	1.3%	1.6%	3.9%	0.6%	0.4%
Alaska	74,881	10.5%	0.2%	57.3%	4.2%	8.8%	5.3%	0.2%	0.1%	0.1%	0.3%
Arizona	633,211	9.9%	2.1%	48.0%	5.3%	45.3%	2.8%	1.7%	0.8%	4.7%	1.2%
Arkansas	284,105	9.7%	0.9%	68.8%	21.4%	10.4%	1.6%	1.1%	1.4%	0.5%	0.3%
California	3,922,951	10.5%	12.8%	32.6%	7.2%	55.8%	12.3%	7.3%	6.5%	35.6%	31.7%
Colorado	487,698	9.7%	1.6%	64.6%	4.9%	30.5%	2.8%	1.8%	0.6%	2.4%	0.9%
Connecticut	326,659	6.5%	1.1%	62.9%	14.0%	22.7%	3.9%	1.2%	1.0%	1.2%	0.8%
Delaware	90,905	1.8%	0.3%	59.7%	27.3%	13.5%	3.1%	0.3%	0.6%	0.2%	0.2%
District of Columbia	87,015	1.7%	0.3%	43.5%	44.8%	11.3%	4.8%	0.2%	0.9%	0.2%	0.3%
Florida	1,739,657	34.5%	5.7%	48.6%	23.0%	32.5%	2.6%	4.8%	9.2%	9.2%	3.0%
Georgia	970,157	10.0%	3.2%	49.5%	39.3%	14.1%	3.3%	2.7%	8.7%	2.2%	2.1%
Hawaii	130,312	9.6%	0.4%	23.3%	2.5%	14.6%	28.2%	0.2%	0.1%	0.3%	2.4%
Idaho	154,418	9.8%	0.5%	79.6%	1.0%	18.1%	1.4%	0.7%	0.0%	0.5%	0.1%
Illinois	1,246,307	9.7%	4.1%	57.5%	19.4%	24.0%	4.7%	4.1%	5.5%	4.9%	3.9%
Indiana	650,310	10.0%	2.1%	78.1%	11.7%	9.1%	2.4%	2.9%	1.7%	1.0%	1.0%
Iowa	305,867	10.0%	1.0%	84.2%	4.6%	8.4%	2.9%	1.5%	0.3%	0.4%	0.6%
Kansas	288,159	10.1%	0.9%	73.3%	8.1%	16.0%	3.0%	1.2%	0.5%	0.7%	0.6%
Kentucky	412,801	9.5%	1.3%	82.7%	11.1%	5.6%	1.2%	1.9%	1.1%	0.4%	0.3%
Louisiana	474,531	10.4%	1.5%	54.1%	42.0%	7.0%	1.8%	1.5%	4.6%	0.5%	0.6%
Maine	116,072	8.7%	0.4%	91.7%	2.3%	2.5%	1.5%	0.6%	0.1%	0.0%	0.1%
Maryland	557,360	9.6%	1.8%	49.2%	37.1%	13.2%	5.2%	1.6%	4.7%	1.2%	1.9%
Massachusetts	677,888	10.3%	2.2%	69.0%	8.4%	16.0%	6.8%	2.7%	1.3%	1.8%	3.0%
Michigan	973,889	9.9%	3.2%	71.8%	19.5%	6.8%	2.9%	4.0%	4.4%	1.1%	1.9%
Minnesota	502,799	9.5%	1.6%	77.3%	7.7%	7.6%	5.9%	2.2%	0.9%	0.6%	2.0%
Mississippi	304,834	10.3%	1.0%	51.6%	48.7%	5.1%	1.0%	0.9%	3.4%	0.3%	0.2%
Missouri	589,264	9.8%	1.9%	76.4%	16.2%	6.0%	2.2%	2.6%	2.2%	0.6%	0.9%
Montana	94,611	9.5%	0.3%	83.4%	0.9%	5.1%	1.0%	0.4%	0.0%	0.1%	0.1%
Nebraska	182,527	10.0%	0.6%	77.7%	6.2%	14.4%	2.4%	0.8%	0.3%	0.4%	0.3%
Nevada	248,829	9.2%	0.8%	44.8%	10.5%	41.9%	7.1%	0.6%	0.6%	1.7%	1.2%
New Hampshire	123,114	9.3%	0.4%	89.9%	1.8%	4.9%	2.4%	0.6%	0.0%	0.1%	0.2%
New Jersey	767,228	8.7%	2.5%	50.9%	18.3%	29.4%	7.4%	2.2%	3.2%	3.7%	3.7%
New Mexico	203,539	9.9%	0.7%	31.2%	2.4%	64.1%	1.4%	0.4%	0.1%	2.1%	0.2%
New York	1,983,517	10.2%	6.5%	51.8%	18.5%	26.4%	8.0%	5.9%	8.4%	8.5%	10.4%
North Carolina	938,618	9.8%	3.1%	59.1%	28.2%	13.6%	2.4%	3.2%	6.0%	2.1%	1.5%
North Dakota	81,020	12.0%	0.3%	85.1%	2.3%	3.6%	2.1%	0.4%	0.0%	0.0%	0.1%
Ohio	1,099,491	9.5%	3.6%	77.1%	16.7%	5.1%	2.0%	4.8%	4.2%	0.9%	1.4%
Oklahoma	381,186	10.1%	1.2%	62.2%	10.3%	14.7%	2.2%	1.4%	0.9%	0.9%	0.6%
Oregon	358,778	9.3%	1.2%	72.3%	2.5%	19.3%	4.3%	1.5%	0.2%	1.1%	1.0%
Pennsylvania	1,261,381	9.9%	4.1%	73.6%	15.0%	9.6%	3.5%	5.3%	4.3%	2.0%	2.9%
Rhode Island	119,969	11.4%	0.4%	69.5%	7.1%	19.5%	4.6%	0.5%	0.2%	0.4%	0.4%
South Carolina	476,445	10.3%	1.6%	58.0%	36.3%	9.2%	1.3%	1.6%	3.9%	0.7%	0.4%
South Dakota	81,539	10.0%	0.3%	80.1%	1.9%	4.7%	1.4%	0.4%	0.0%	0.1%	0.1%
Tennessee	606,364	9.5%	2.0%	69.6%	23.7%	8.2%	1.5%	2.4%	3.3%	0.8%	0.6%
Texas	2,572,969	10.2%	8.4%	38.7%	14.5%	53.6%	3.7%	5.7%	8.5%	22.4%	6.2%
Utah	318,029	11.5%	1.0%	77.8%	1.3%	17.9%	2.3%	1.4%	0.1%	0.9%	0.5%
Vermont	64,873	10.4%	0.2%	91.2%	1.8%	3.6%	2.1%	0.3%	0.0%	0.0%	0.1%
Virginia	802,099	10.0%	2.6%	59.8%	24.9%	12.7%	5.1%	2.7%	4.6%	1.6%	2.7%
Washington	650,053	9.6%	2.1%	66.0%	4.6%	18.6%	7.8%	2.4%	0.7%	2.0%	3.3%
West Virginia	168,999	9.1%	0.6%	90.6%	5.3%	2.4%	1.0%	0.9%	0.2%	0.1%	0.1%
Wisconsin	549,256	9.7%	1.8%	78.2%	9.2%	9.4%	3.6%	2.4%	1.2%	0.8%	1.3%
Wyoming	56,429	10.0%	0.2%	81.8%	1.6%	13.8%	1.3%	0.3%	0.0%	0.1%	0.0%

SOURCE: *US Census Bureau, Decennial Census, 2010.*

Table A3 | **UNDERGRADUATE ENROLLMENTS IN PUBLIC INSTITUTIONS OF HIGHER EDUCATION, BY STATE, 2008**

	2008 Totals			Share of National Total, 2008			Percentage Change, 1990-2008		
State	All Enrollments	Four-Year Institutions	Two-Year Institutions	All Enrollments	Four-Year Institutions	Two-Year Institutions	All Enrollments	Four-Year Institutions	Two-Year Institutions
United States	12,591,217	5,951,146	6,640,071	100.0%	100.0%	100.0%	29.7%	26.3%	32.9%
Alabama	209,442	125,933	83,509	1.7%	2.1%	1.3%	19.8%	22.6%	15.8%
Alaska	26,809	25,820	989	0.2%	0.4%	0.0%	0.3%	-3.4%	N/A
Arizona	303,466	99,797	203,669	2.4%	1.7%	3.1%	34.8%	37.4%	33.5%
Arkansas	127,004	72,446	54,558	1.0%	1.2%	0.8%	79.1%	34.9%	216.5%
California	2,119,829	538,305	1,581,524	16.8%	9.0%	23.8%	43.6%	28.7%	49.5%
Colorado	204,507	122,796	81,711	1.6%	2.1%	1.2%	18.7%	22.5%	13.4%
Connecticut	103,728	52,623	51,105	0.8%	0.9%	0.8%	11.0%	7.6%	14.7%
Delaware	35,129	20,211	14,918	0.3%	0.3%	0.2%	11.8%	-1.9%	37.8%
District of Columbia	5,121	5,121	0	0.0%	0.1%	0.0%	N/A	N/A	N/A
Florida	647,185	401,276	245,909	5.1%	6.7%	3.7%	43.5%	189.1%	-21.2%
Georgia	337,113	195,437	141,676	2.7%	3.3%	2.1%	98.4%	70.6%	156.2%
Hawaii	46,748	21,591	25,157	0.4%	0.4%	0.4%	18.5%	22.6%	15.3%
Idaho	54,441	41,302	13,139	0.4%	0.7%	0.2%	56.7%	41.7%	134.4%
Illinois	509,510	152,353	357,157	4.0%	2.6%	5.4%	1.2%	1.3%	1.2%
Indiana	260,206	177,792	82,414	2.1%	3.0%	1.2%	33.3%	12.8%	119.0%
Iowa	141,529	53,516	88,013	1.1%	0.9%	1.3%	38.5%	2.4%	76.5%
Kansas	150,933	76,763	74,170	1.2%	1.3%	1.1%	17.4%	10.4%	25.8%
Kentucky	185,812	96,090	89,722	1.5%	1.6%	1.4%	43.7%	8.4%	120.6%
Louisiana	180,343	120,075	60,268	1.4%	2.0%	0.9%	29.5%	2.1%	178.3%
Maine	43,844	29,104	14,740	0.3%	0.5%	0.2%	16.5%	-5.3%	114.1%
Maryland	238,735	110,662	128,073	1.9%	1.9%	1.9%	21.8%	28.5%	16.5%
Massachusetts	180,310	87,264	93,046	1.4%	1.5%	1.4%	8.0%	-4.1%	22.4%
Michigan	460,639	225,174	235,465	3.7%	3.8%	3.5%	7.4%	11.9%	3.5%
Minnesota	230,824	106,813	124,011	1.8%	1.8%	1.9%	28.3%	-6.6%	89.1%
Mississippi	129,633	56,568	73,065	1.0%	1.0%	1.1%	31.5%	17.0%	45.4%
Missouri	203,319	110,891	92,428	1.6%	1.9%	1.4%	13.4%	6.1%	23.5%
Montana	39,078	29,681	9,397	0.3%	0.5%	0.1%	38.1%	21.4%	144.1%
Nebraska	86,400	42,873	43,527	0.7%	0.7%	0.7%	5.5%	-10.6%	28.3%
Nevada	98,622	86,130	12,492	0.8%	1.4%	0.2%	76.8%	259.3%	-60.7%
New Hampshire	36,840	23,957	12,883	0.3%	0.4%	0.2%	27.2%	16.2%	54.0%
New Jersey	293,634	129,398	164,236	2.3%	2.2%	2.5%	26.7%	20.0%	32.5%
New Mexico	120,721	45,526	75,195	1.0%	0.8%	1.1%	65.9%	21.8%	112.5%
New York	605,791	313,147	292,644	4.8%	5.3%	4.4%	10.1%	5.4%	15.6%
North Carolina	389,756	170,472	219,284	3.1%	2.9%	3.3%	50.4%	39.1%	60.4%
North Dakota	39,102	32,865	6,237	0.3%	0.6%	0.1%	21.5%	32.7%	-15.9%
Ohio	418,066	238,963	179,103	3.3%	4.0%	2.7%	11.5%	0.8%	30.0%
Oklahoma	158,406	96,850	61,556	1.3%	1.6%	0.9%	21.3%	33.6%	5.9%
Oregon	164,256	71,416	92,840	1.3%	1.2%	1.4%	26.1%	33.6%	20.8%
Pennsylvania	358,910	224,976	133,934	2.9%	3.8%	2.0%	18.8%	16.0%	23.8%
Rhode Island	38,006	20,394	17,612	0.3%	0.3%	0.3%	4.0%	2.4%	6.0%
South Carolina	167,766	79,263	88,503	1.3%	1.3%	1.3%	47.0%	23.2%	77.6%
South Dakota †	34,427	29,180	5,247	0.3%	0.5%	0.1%	50.5%	28.3%	6.3%
Tennessee	188,953	108,790	80,163	1.5%	1.8%	1.2%	21.4%	20.2%	23.1%
Texas	1,041,910	448,803	593,107	8.3%	7.5%	8.9%	46.5%	37.3%	54.2%
Utah	146,272	103,361	42,911	1.2%	1.7%	0.6%	86.1%	106.6%	50.1%
Vermont	23,234	17,502	5,732	0.2%	0.3%	0.1%	23.2%	24.8%	18.6%
Virginia	331,959	154,838	177,121	2.6%	2.6%	2.7%	31.8%	28.2%	35.1%
Washington	293,378	123,991	169,387	2.3%	2.1%	2.6%	37.3%	83.5%	15.9%
West Virginia	76,080	55,862	20,218	0.6%	0.9%	0.3%	18.2%	4.2%	88.1%
Wisconsin	256,067	152,120	103,947	2.0%	2.6%	1.6%	12.3%	19.7%	3.1%
Wyoming	31,903	9,544	22,359	0.3%	0.2%	0.3%	16.0%	1.5%	23.5%

*NOTE: † *For reasons of data availability, the percentage change for two-year insitutions in South Dakota compares Fall 1997 to Fall 2008.*

SOURCE: *National Center for Education Statistics, Digest of Education Statistics, various years.*

Table A4 | **RELATIVE MEASURES OF STATE SUPPORT FOR HIGHER EDUCATION INCLUSIVE OF RECOVERY FUNDS, BY STATE, FISCAL YEARS 2009-2010 AND 2010-2011**

	Fiscal Year 2009-2010 (2010 $)				Fiscal Year 2010-2011 (2010 $)			
State	Funding Per Capita	Funding Per Young Adult (Ages 18-24)	Funding Per Full-Time Equivalent Student†	Funding Per $1,000 in Personal Income	Funding Per Capita	Funding Per Young Adult (Ages 18-24)	Funding Per Full-Time Equivalent Student†	Funding Per $1,000 in Personal Income
United States	$256	$2,578	$8,062	$6.46	$254	$2,558	$6,747	$6.35
Alabama	$324	$3,266	$8,366	$9.75	$323	$3,221	$7,563	$9.62
Alaska††	$477	$3,486	$16,918	$10.84	$479	$4,569	$16,448	$10.84
Arizona	$183	$1,957	$6,169	$5.29	$170	$1,717	$4,612	$4.91
Arkansas	$309	$2,883	$8,417	$9.51	$314	$3,226	$7,386	$9.60
California	$271	$2,838	$8,431	$6.44	$299	$2,845	$5,202	$7.02
Colorado	$167	$1,449	$4,923	$3.97	$152	$1,570	$4,539	$3.59
Connecticut	$308	$2,932	$12,098	$5.65	$301	$3,294	$12,912	$5.48
Delaware	$272	$2,870	$7,838	$6.92	$236	$2,337	$7,481	$5.95
Florida	$212	$2,494	$8,341	$5.58	$219	$2,367	$6,641	$5.72
Georgia	$308	$2,385	$10,953	$8.88	$306	$3,064	$7,993	$8.80
Hawaii††	$412	$4,404	$16,183	$9.96	$375	$3,926	$13,932	$9.00
Idaho	$238	$2,558	$8,995	$7.53	$221	$2,254	$7,507	$6.92
Illinois	$265	$2,448	$7,826	$6.33	$249	$2,568	$8,436	$5.92
Indiana	$247	$2,556	$7,071	$7.27	$241	$2,406	$6,014	$7.08
Iowa	$285	$3,201	$7,668	$7.55	$249	$2,481	$6,795	$6.53
Kansas	$280	$2,686	$6,458	$7.20	$278	$2,760	$5,778	$7.13
Kentucky	$298	$3,000	$8,355	$9.15	$294	$3,099	$8,328	$9.09
Louisiana	$333	$3,270	$10,649	$9.04	$348	$3,334	$8,347	$9.40
Maine	$203	$2,948	$7,680	$5.53	$208	$2,384	$7,197	$5.68
Maryland	$279	$2,732	$8,391	$5.76	$276	$2,864	$6,854	$5.62
Massachusetts	$185	$1,834	$8,744	$3.66	$185	$1,792	$7,315	$3.61
Michigan	$192	$2,230	$5,327	$5.64	$189	$1,920	$4,415	$5.46
Minnesota	$296	$2,754	$8,247	$7.06	$260	$2,747	$7,271	$6.07
Mississippi	$362	$3,330	$8,071	$11.84	$343	$3,342	$8,692	$11.05
Missouri	$182	$1,784	$6,424	$4.94	$167	$1,699	$5,798	$4.52
Montana	$213	$1,845	$5,784	$6.21	$211	$2,215	$5,384	$6.03
Nebraska	$354	$3,714	$8,867	$8.99	$357	$3,583	$7,553	$9.00
Nevada	$217	$3,452	$8,916	$5.83	$203	$2,211	$8,449	$5.51
New Hampshire	$110	$1,082	$4,172	$2.54	$108	$1,152	$3,651	$2.47
New Jersey	$238	$3,060	$8,177	$4.72	$233	$2,672	$7,773	$4.55
New Mexico	$465	$3,987	$11,376	$14.10	$429	$4,356	$9,592	$12.86
New York	$255	$2,537	$9,531	$5.36	$260	$2,537	$8,602	$5.36
North Carolina	$413	$3,547	$12,114	$11.91	$415	$4,227	$9,280	$11.86
North Dakota	$469	$3,720	$14,306	$11.62	$462	$3,847	$8,259	$10.81
Ohio	$198	$2,315	$6,755	$5.52	$198	$2,076	$5,138	$5.47
Oklahoma	$308	$3,053	$8,158	$8.91	$294	$2,901	$8,069	$8.31
Oregon	$181	$2,039	$5,739	$5.01	$169	$1,812	$4,300	$4.65
Pennsylvania	$168	$1,954	$6,835	$4.19	$166	$1,671	$5,732	$4.09
Rhode Island	$155	$2,446	$5,312	$3.74	$163	$1,428	$5,089	$3.86
South Carolina	$224	$1,971	$6,813	$6.95	$200	$1,949	$6,160	$6.17
South Dakota	$246	$2,093	$6,361	$6.32	$241	$2,411	$6,146	$6.08
Tennessee	$263	$2,216	$9,931	$7.63	$261	$2,737	$8,699	$7.47
Texas	$273	$2,236	$7,703	$7.35	$248	$2,437	$7,831	$6.58
Utah	$274	$2,089	$7,170	$8.43	$265	$2,311	$6,291	$8.15
Vermont	$149	$1,360	$4,341	$3.77	$151	$1,452	$4,282	$3.75
Virginia	$218	$2,193	$6,960	$5.17	$237	$2,374	$5,765	$5.36
Washington	$245	$2,587	$7,920	$5.90	$236	$2,450	$6,565	$5.55
West Virginia	$282	$2,285	$7,118	$8.99	$284	$3,121	$6,666	$8.89
Wisconsin	$258	$2,144	$6,019	$6.40	$256	$2,656	$5,741	$6.71
Wyoming	$550	$4,174	$14,016	$12.42	$682	$6,819	$12,032	$15.20
Median Value	$264	$2,557	$7,995	$6.68	$249	$2,509	$7,234	$6.13
Average Value	$272	$2,648	$8,379	$7.18	$268	$2,704	$7,330	$6.99

*NOTE: *"State support" is the sum of annual state appropriations for the operating expenses of universities, community colleges, higher education agencies, state financial aid programs, and independent institutions of higher learning combined with corresponding ARRA funds.*

† Full-Time Equivalent information is for fiscal years 2008-2009 and 2009-2010, the most recent with complete data for all variables.

†† Due to their unique funding structures, data for Alaska and Hawaii are not fully comparable to those for other states.

SOURCE: *Center for the Study of Education Policy, Grapevine, various years; Nation Center for Education Statistics, Digest of Education Statistics, various years; US Census Bureau; and US Bureau of Economic Analysis.*

Table A5 | **AVERAGE ANNUAL PUBLISHED CHARGES, PUBLIC INSTITUTIONS OF HIGHER EDUCATION, BY STATE, ACADEMIC YEARS 1990-1991 AND 2009-2010**

	Public, 4-Year (2010 $)									
State	Tuition and Fees, Room, and Board 1990-1991	Tuition and Fees 1990-91	Room and Board 1990-91	Tuition and Fees, Room, and Board 2009-2010	Tuition and Fees 2009-10	Room and Board 2009-10	Cumulative Percentage Change in Tuition and Fees, Room, and Board	Cumulative Percentage Change in Tuition and Fees	Annualized Percentage Change in Tuition and Fees, Room, and Board	Annualized Percentage Change in Tuition and Fees
United States	$8,747	$3,150	$5,597	$15,014	$6,695	$8,319	71.6%	112.5%	2.7%	3.8%
Alabama	$7,269	$2,658	$4,611	$13,052	$6,061	$6,992	79.6%	128.0%	3.0%	4.2%
Alaska	$7,628	$2,306	$5,322	$13,281	$5,246	$8,035	74.1%	127.5%	2.8%	4.2%
Arizona	$7,893	$2,466	$5,427	$15,710	$6,720	$8,990	99.0%	172.5%	3.5%	5.1%
Arkansas	$6,413	$2,366	$4,047	$11,841	$5,846	$5,996	84.6%	147.1%	3.1%	4.6%
California	$9,833	$2,035	$7,798	$17,652	$6,240	$11,412	79.5%	206.6%	3.0%	5.8%
Colorado	$8,696	$3,202	$5,494	$15,056	$6,188	$8,868	73.2%	93.3%	2.8%	3.3%
Connecticut	$9,970	$3,859	$6,111	$18,331	$8,375	$9,956	83.9%	117.0%	3.1%	4.0%
Delaware	$10,357	$4,855	$5,502	$18,383	$9,026	$9,357	77.5%	85.9%	2.9%	3.1%
Florida	$8,012	$2,231	$5,781	$11,659	$3,452	$8,207	45.5%	54.8%	1.9%	2.2%
Georgia	$7,296	$2,803	$4,493	$12,552	$4,839	$7,713	72.0%	72.7%	2.8%	2.8%
Hawaii	$8,285	$2,152	$6,133	$14,182	$5,943	$8,239	71.2%	176.2%	2.7%	5.2%
Idaho	$7,152	$1,984	$5,169	$10,895	$4,883	$6,012	52.3%	146.2%	2.1%	4.6%
Illinois	$9,637	$4,113	$5,524	$19,355	$10,443	$8,912	100.9%	153.9%	3.5%	4.8%
Indiana	$8,894	$3,449	$5,446	$15,590	$7,306	$8,285	75.3%	111.9%	2.8%	3.8%
Iowa	$7,092	$3,137	$3,956	$14,174	$6,712	$7,461	99.8%	114.0%	3.5%	3.9%
Kansas	$6,947	$2,618	$4,329	$12,578	$6,052	$6,526	81.0%	131.2%	3.0%	4.3%
Kentucky	$7,439	$2,409	$5,030	$14,228	$7,165	$7,064	91.3%	197.4%	3.3%	5.6%
Louisiana	$7,619	$2,988	$4,631	$10,873	$4,282	$6,591	42.7%	43.3%	1.8%	1.8%
Maine	$10,017	$3,776	$6,241	$17,020	$8,504	$8,516	69.9%	125.2%	2.7%	4.1%
Maryland	$11,330	$3,816	$7,514	$16,407	$7,321	$9,086	44.8%	91.9%	1.9%	3.3%
Massachusetts	$10,786	$4,304	$6,482	$17,819	$9,221	$8,598	65.2%	114.2%	2.5%	3.9%
Michigan	$10,484	$4,396	$6,088	$17,852	$9,638	$8,214	70.3%	119.2%	2.7%	4.0%
Minnesota	$8,143	$3,697	$4,446	$15,730	$8,728	$7,001	93.2%	136.1%	3.3%	4.4%
Mississippi	$8,350	$3,215	$5,135	$11,583	$5,046	$6,537	38.7%	56.9%	1.6%	2.3%
Missouri	$7,249	$2,891	$4,358	$14,368	$7,047	$7,321	98.2%	143.7%	3.5%	4.6%
Montana	$8,642	$2,591	$6,051	$12,399	$5,612	$6,787	43.5%	116.6%	1.8%	3.9%
Nebraska	$5,512	$2,656	$2,856	$13,265	$6,229	$7,036	140.6%	134.5%	4.5%	4.4%
Nevada	$9,131	$2,127	$7,004	$13,682	$3,559	$10,123	49.8%	67.3%	2.0%	2.6%
New Hampshire	$10,975	$5,189	$5,786	$20,492	$10,958	$9,535	86.7%	111.2%	3.2%	3.8%
New Jersey	$11,548	$4,772	$6,777	$21,591	$10,680	$10,912	87.0%	123.8%	3.2%	4.1%
New Mexico	$7,102	$2,351	$4,752	$11,809	$4,655	$7,154	66.3%	98.0%	2.6%	3.5%
New York	$9,168	$2,648	$6,520	$16,147	$5,720	$10,427	76.1%	116.0%	2.9%	3.9%
North Carolina	$6,784	$1,855	$4,928	$11,874	$4,559	$7,315	75.0%	145.7%	2.8%	4.6%
North Dakota	$7,237	$3,220	$4,017	$11,891	$5,968	$5,923	64.3%	85.4%	2.5%	3.1%
Ohio	$11,050	$4,374	$6,675	$17,133	$8,058	$9,075	55.1%	84.2%	2.2%	3.1%
Oklahoma	$6,385	$2,236	$4,149	$11,444	$4,955	$6,489	79.2%	121.7%	3.0%	4.1%
Oregon	$8,657	$3,180	$5,477	$15,629	$6,941	$8,689	80.5%	118.3%	3.0%	4.0%
Pennsylvania	$11,305	$5,674	$5,631	$19,017	$10,550	$8,467	68.2%	85.9%	2.6%	3.1%
Rhode Island	$11,063	$3,856	$7,207	$18,509	$8,435	$10,074	67.3%	118.8%	2.6%	4.0%
South Carolina	$9,078	$3,866	$5,212	$16,788	$9,439	$7,349	84.9%	144.2%	3.1%	4.6%
South Dakota	$6,385	$3,093	$3,292	$12,022	$6,128	$5,894	88.3%	98.1%	3.2%	3.5%
Tennessee	$7,267	$2,533	$4,735	$12,748	$6,048	$6,700	75.4%	138.8%	2.8%	4.4%
Texas	$6,879	$1,645	$5,234	$13,764	$6,350	$7,414	100.1%	286.0%	3.5%	7.0%
Utah	$7,116	$2,543	$4,573	$10,109	$4,532	$5,577	42.1%	78.2%	1.8%	2.9%
Vermont	$13,612	$6,827	$6,785	$20,735	$12,008	$8,726	52.3%	75.9%	2.1%	2.9%
Virginia	$10,502	$4,490	$6,013	$15,616	$7,795	$7,821	48.7%	73.6%	2.0%	2.8%
Washington	$8,442	$3,041	$5,401	$15,189	$6,032	$9,157	79.9%	98.3%	3.0%	3.5%
West Virginia	$8,045	$2,574	$5,471	$12,426	$4,899	$7,527	54.5%	90.3%	2.2%	3.3%
Wisconsin	$7,960	$3,255	$4,705	$13,190	$6,963	$6,227	65.7%	113.9%	2.6%	3.9%
Wyoming	$7,052	$1,915	$5,137	$10,952	$3,162	$7,790	55.3%	65.1%	2.2%	2.5%
Median Value	$8,214	$3,015	$5,414	$14,205	$6,235	$7,805	74.6%	116.3%	2.8%	3.9%
Average Value	$8,594	$3,205	$5,389	$14,772	$6,810	$7,961	73.0%	117.1%	2.7%	3.9%

SOURCE: *National Center for Education Statistics, Digest of Education Statistics, various years. Figures refect in-state tuition.*

Table A5 continued | **AVERAGE ANNUAL PUBLISHED CHARGES, PUBLIC INSTITUTIONS OF HIGHER EDUCATION, BY STATE, ACADEMIC YEARS 1990-1991 AND 2009-2010**

Public, 2-Year (2010 $)				
State	Tuition and Fees 1990-1991	Tuition and Fees 2009-2010	Tuition and Fees Cumulative Percentage Change	Annualized Percentage Change in Tuition and Fees
United States	$1,336	$2,285	71.0%	3.7%
Alabama	$1,116	$2,834	153.9%	8.0%
Alaska	N.A.	N.A.	N.A.	N.A.
Arizona	$938	$1,652	76.2%	4.0%
Arkansas	$1,050	$2,188	108.3%	5.7%
California	$186	$719	287.8%	14.9%
Colorado	$1,529	$2,446	60.0%	3.1%
Connecticut	$1,576	$3,199	103.0%	5.4%
Delaware	$1,517	$2,816	85.6%	4.5%
Florida	$1,277	$2,480	94.2%	4.9%
Georgia	$1,533	$2,324	51.6%	2.7%
Hawaii	$669	$1,955	192.2%	10.0%
Idaho	$1,300	$2,420	86.1%	4.5%
Illinois	$1,469	$2,670	81.8%	4.3%
Indiana	$2,307	$3,090	33.9%	1.8%
Iowa	$2,104	$3,549	68.7%	3.6%
Kansas	$1,213	$2,212	82.4%	4.3%
Kentucky	$1,249	$3,026	142.3%	7.4%
Louisiana	$1,380	$1,849	33.9%	1.8%
Maine	$2,427	$3,303	36.1%	1.9%
Maryland	$2,016	$3,099	53.7%	2.8%
Massachusetts	$2,477	$3,522	42.2%	2.2%
Michigan	$1,821	$2,312	26.9%	1.4%
Minnesota	$2,558	$4,791	87.3%	4.6%
Mississippi	$1,171	$1,837	56.9%	3.0%
Missouri	$1,443	$2,406	66.7%	3.5%
Montana	$1,562	$3,121	99.8%	5.2%
Nebraska	$1,604	$2,248	40.2%	2.1%
Nevada	$1,054	$2,010	90.6%	4.7%
New Hampshire	$3,078	$6,296	104.5%	5.5%
New Jersey	$2,001	$3,388	69.3%	3.6%
New Mexico	$868	$1,338	54.1%	2.8%
New York	$2,301	$3,724	61.9%	3.2%
North Carolina	$541	$1,639	202.9%	10.6%
North Dakota	$2,567	$3,873	50.9%	2.7%
Ohio	$2,865	$3,014	5.2%	0.3%
Oklahoma	$1,400	$2,423	73.0%	3.8%
Oregon	$1,287	$3,220	150.2%	7.8%
Pennsylvania	$2,440	$3,454	41.6%	2.2%
Rhode Island	$1,783	$3,376	89.4%	4.7%
South Carolina	$1,317	$3,477	164.0%	8.6%
South Dakota	$3,112	$4,357	40.0%	2.1%
Tennessee	$1,374	$2,941	114.0%	6.0%
Texas	$802	$1,512	88.6%	4.6%
Utah	$1,902	$2,734	43.8%	2.3%
Vermont	$3,929	$4,876	24.1%	1.3%
Virginia	$1,406	$2,853	102.9%	5.4%
Washington	$1,368	$3,025	121.2%	6.3%
West Virginia	$1,507	$2,847	88.9%	4.7%
Wisconsin	$2,000	$3,543	77.1%	4.0%
Wyoming	$1,073	$2,120	97.5%	5.1%
Median Value	$1,507	$2,847	81.8%	4.3%
Average Value	$1,663	$2,859	85.9%	4.5%

SOURCE: *National Center for Education Statistics, Digest of Education Statistics, various years.*

Table A6 | **FUNDING FOR STATE-SPONSORED FINANCIAL AID PROGRAMS, BY STATE, FISCAL YEARS 1990-1991 AND 2009-2010**

	1990-1991 (2010 $)			2009-2010 (2010 $)			Change (2010 $)		
State	Total Financial Aid (Millions)	Financial Aid Per Full-Time Equivalent Student	Share Need-Based	Total Financial Aid (Millions)	Financial Aid Per Full-Time Equivalent Student	Share Need-Based	Dollar Change in Total Financial Aid (Millions)	Dollar Change in Financial Aid Per Full-Time Equivalent Student	Percentage Point Change in Share Need-Based
United States †	$3,486.4	$461	78.8%	$10,779.3	$928	59.8%	$7,292.9	$467	(19.04)
Alabama	$25.7	$167	27.4%	$28.3	$139	85.8%	$2.5	-$28	58.42
Alaska	$4.2	$244	18.0%	$74.3	$3,664	1.2%	$70.1	$3,420	(16.87)
Arizona	$5.8	$38	95.0%	$21.0	$83	86.7%	$15.1	$45	(8.30)
Arkansas	$8.0	$126	84.0%	$51.8	$427	60.9%	$43.8	$301	(23.05)
California	$267.0	$273	100.0%	$1,076.7	$559	96.7%	$809.7	$286	(3.33)
Colorado	$39.4	$284	49.8%	$104.4	$571	73.3%	$65.0	$286	23.52
Connecticut	$58.6	$827	57.5%	$136.0	$1,599	46.4%	$77.4	$772	(11.11)
Delaware	$3.0	$115	79.1%	$21.3	$656	65.7%	$18.3	$541	(13.45)
Florida	$111.9	$370	39.3%	$672.1	$1,128	22.4%	$560.2	$758	(16.90)
Georgia	$37.4	$251	22.4%	$686.6	$1,852	0.2%	$649.3	$1,602	(22.25)
Hawaii	$1.0	$30	100.0%	$4.7	$119	71.9%	$3.7	$88	(28.07)
Idaho	$1.2	$38	66.4%	$7.6	$154	24.3%	$6.4	$116	(42.18)
Illinois	$329.2	$932	89.0%	$427.0	$1,064	92.8%	$97.9	$132	3.83
Indiana	$76.9	$455	98.0%	$254.0	$958	85.9%	$177.1	$502	(12.11)
Iowa	$65.1	$680	94.0%	$58.7	$462	90.4%	-$6.4	-$218	(3.62)
Kansas	$10.8	$101	98.8%	$23.0	$167	78.9%	$12.1	$66	(19.88)
Kentucky	$31.4	$281	100.0%	$198.7	$1,288	48.3%	$167.2	$1,007	(51.68)
Louisiana	$8.0	$62	84.5%	$163.5	$914	16.2%	$155.4	$851	(68.30)
Maine	$8.3	$277	100.0%	$16.1	$430	85.1%	$7.9	$153	(14.95)
Maryland	$33.9	$239	74.9%	$108.5	$464	86.9%	$74.6	$226	12.02
Massachusetts	$116.6	$891	74.0%	$127.1	$769	64.3%	$10.5	-$121	(9.75)
Michigan	$121.4	$371	97.7%	$80.6	$187	58.1%	-$40.8	-$184	(39.58)
Minnesota	$126.1	$879	97.8%	$318.5	$1,482	58.4%	$192.4	$602	(39.39)
Mississippi	$3.0	$32	61.7%	$28.0	$228	10.5%	$25.0	$195	(51.20)
Missouri	$34.8	$244	51.8%	$135.7	$725	61.3%	$100.9	$482	9.48
Montana	$0.6	$23	100.0%	$6.5	$167	66.1%	$5.9	$144	(33.86)
Nebraska	$3.6	$54	100.0%	$133.6	$1,574	10.8%	$130.1	$1,519	(89.20)
Nevada	$0.6	$19	100.0%	$63.8	$927	33.2%	$63.1	$907	(66.84)
New Hampshire	$2.4	$96	52.4%	$4.1	$104	90.8%	$1.7	$8	38.35
New Jersey	$165.5	$949	93.9%	$719.8	$2,685	48.5%	$554.3	$1,736	(45.40)
New Mexico	$21.8	$376	54.1%	$92.5	$937	26.0%	$70.7	$561	(28.11)
New York	$711.7	$1,594	92.9%	$1,038.5	$1,817	87.9%	$326.7	$223	(4.99)
North Carolina	$94.7	$455	6.4%	$460.6	$1,094	69.5%	$365.9	$640	63.19
North Dakota	$2.4	$80	80.4%	$10.7	$284	79.4%	$8.3	$204	(1.03)
Ohio	$129.7	$408	65.9%	$109.0	$246	70.0%	-$20.7	-$162	4.06
Oklahoma	$56.9	$523	37.5%	$217.5	$1,532	35.6%	$160.6	$1,009	(1.91)
Oregon	$19.0	$188	100.0%	$133.8	$833	57.7%	$114.7	$645	(42.30)
Pennsylvania	$236.0	$903	99.6%	$444.1	$1,196	93.5%	$208.2	$293	(6.16)
Rhode Island	$17.2	$597	94.8%	$11.0	$343	100.0%	-$6.2	-$254	5.16
South Carolina	$31.5	$309	93.0%	$325.7	$1,953	18.9%	$294.2	$1,643	(74.07)
South Dakota	$0.9	$41	83.9%	$4.3	$134	4.1%	$3.4	$93	(79.75)
Tennessee	$29.2	$224	78.6%	$339.9	$1,786	22.4%	$310.7	$1,562	(56.21)
Texas	$191.6	$346	23.0%	$820.3	$950	79.4%	$628.8	$604	56.42
Utah	$17.0	$268	9.5%	$68.3	$576	7.0%	$51.3	$308	(2.56)
Vermont	$18.1	$1,129	98.1%	$21.7	$995	98.2%	$3.6	-$134	0.13
Virginia	$41.4	$204	29.0%	$329.7	$1,055	41.2%	$288.4	$850	12.15
Washington	$35.7	$222	95.9%	$273.7	$1,074	85.9%	$238.0	$852	(9.99)
West Virginia	$21.0	$354	42.8%	$128.4	$1,630	34.5%	$107.4	$1,275	(8.32)
Wisconsin	$72.5	$378	94.1%	$114.4	$482	91.0%	$41.9	$104	(3.11)
Wyoming	$0.4	$18	100.0%	$13.8	$539	100.0%	$13.4	$520	0.00
Median Value	$30.3	$270	84.2%	$111.7	$801	65.0%	$70.4	$305	(19.26)
Average Value	$69.0	$359	73.7%	$214.2	$900	58.5%	$145.2	$541	(15.26)

*NOTE: *This table presents data for state-funded need-based grant aid, nonneed-based grant aid, and nongrant aid, including loan programs, available for students at the undergraduate and graduate levels of instruction.*

† *Due to the inclusion of other jurisdictions, the national figure is greater than the 50-state sum.*

SOURCE: *National Association of State Student Grant and Aid Programs, Annual Survey Report on State-Sponsored Student Financial Aid, various years; and National Center for Education Statistics, Digest of Education Statistics, various years.*

Table A7 | **AVERAGE ANNUAL PUBLISHED CHARGES, PUBLIC INSTITUTIONS OF HIGHER EDUCATION, AS SHARE OF MEDIAN HOUSEHOLD INCOME, BY STATE, ACADEMIC YEARS 1990-1991 AND 2009-2010**

	Four-Year Institutions (2010 $)						Two-Year Institutions (2010 $)		
State	1990-1991 Tuition, Fees, Room, and Board	2009-2010 Tuition, Fees, Room, and Board	Percentage Point Change 1990-91 to 2009-10	1990-91 Tuition	2009-2010 Tuition	Percentage Point Change 1990-91 to 2009-10	1990-1991 Tuition	2009-2010 Tuition	Percentage Point Change 1990-91 to 2009-10
United States	18.1%	30.4%	12.3	6.5%	13.5%	7.0	2.8%	4.6%	1.9
Alabama	19.2%	31.9%	12.6	7.0%	14.8%	7.8	3.0%	6.9%	4.0
Alaska	12.0%	22.8%	10.8	3.6%	9.0%	5.4	N.A.	N.A.	N.A.
Arizona	16.7%	33.2%	16.5	5.2%	14.2%	9.0	2.0%	3.5%	1.5
Arkansas	17.4%	30.7%	13.3	6.4%	15.2%	8.7	2.9%	5.7%	2.8
California	18.3%	32.4%	14.1	3.8%	11.5%	7.7	0.3%	1.3%	1.0
Colorado	17.5%	24.9%	7.4	6.4%	10.2%	3.8	3.1%	4.0%	1.0
Connecticut	15.9%	27.6%	11.7	6.1%	12.6%	6.5	2.5%	4.8%	2.3
Delaware	20.8%	33.3%	12.5	9.7%	16.3%	6.6	3.0%	5.1%	2.0
Florida	18.6%	26.4%	7.8	5.2%	7.8%	2.6	3.0%	5.6%	2.6
Georgia	16.4%	28.5%	12.1	6.3%	11.0%	4.7	3.4%	5.3%	1.8
Hawaii	13.2%	24.2%	11.1	3.4%	10.2%	6.7	1.1%	3.3%	2.3
Idaho	17.5%	23.2%	5.7	4.8%	10.4%	5.5	3.2%	5.1%	2.0
Illinois	18.3%	38.1%	19.8	7.8%	20.6%	12.8	2.8%	5.3%	2.5
Indiana	20.4%	33.7%	13.2	7.9%	15.8%	7.9	5.3%	6.7%	1.4
Iowa	16.1%	28.8%	12.8	7.1%	13.6%	6.5	4.8%	7.2%	2.4
Kansas	14.4%	27.2%	12.8	5.4%	13.1%	7.7	2.5%	4.8%	2.3
Kentucky	18.6%	34.5%	15.9	6.0%	17.4%	11.4	3.1%	7.3%	4.2
Louisiana	21.0%	27.6%	6.5	8.2%	10.9%	2.6	3.8%	4.7%	0.9
Maine	22.6%	35.4%	12.8	8.5%	17.7%	9.2	5.5%	6.9%	1.4
Maryland	18.0%	25.6%	7.6	6.1%	11.4%	5.4	3.2%	4.8%	1.6
Massachusetts	18.4%	29.1%	10.7	7.3%	15.0%	7.7	4.2%	5.7%	1.5
Michigan	21.7%	38.4%	16.8	9.1%	20.8%	11.7	3.8%	5.0%	1.2
Minnesota	16.0%	29.9%	13.9	7.3%	16.6%	9.3	5.0%	9.1%	4.1
Mississippi	25.6%	30.5%	4.9	9.9%	13.3%	3.4	3.6%	4.8%	1.2
Missouri	16.4%	31.1%	14.7	6.5%	15.3%	8.7	3.3%	5.2%	1.9
Montana	22.9%	29.9%	7.0	6.9%	13.5%	6.7	4.1%	7.5%	3.4
Nebraska	12.4%	25.2%	12.8	6.0%	11.8%	5.8	3.6%	4.3%	0.7
Nevada	17.6%	26.6%	8.9	4.1%	6.9%	2.8	2.0%	3.9%	1.9
New Hampshire	16.6%	30.7%	14.1	7.9%	16.4%	8.6	4.7%	9.4%	4.8
New Jersey	18.4%	34.0%	15.5	7.6%	16.8%	9.2	3.2%	5.3%	2.1
New Mexico	17.5%	26.2%	8.6	5.8%	10.3%	4.5	2.1%	3.0%	0.8
New York	17.9%	32.4%	14.5	5.2%	11.5%	6.3	4.5%	7.5%	3.0
North Carolina	15.9%	27.1%	11.2	4.4%	10.4%	6.1	1.3%	3.7%	2.5
North Dakota	17.7%	23.1%	5.4	7.9%	11.6%	3.7	6.3%	7.5%	1.3
Ohio	22.8%	37.2%	14.4	9.0%	17.5%	8.5	5.9%	6.5%	0.6
Oklahoma	16.2%	26.4%	10.2	5.7%	11.4%	5.7	3.6%	5.6%	2.0
Oregon	18.3%	30.9%	12.7	6.7%	13.7%	7.0	2.7%	6.4%	3.7
Pennsylvania	24.1%	39.2%	15.1	12.1%	21.8%	9.7	5.2%	7.1%	1.9
Rhode Island	21.4%	35.7%	14.3	7.5%	16.2%	8.8	3.4%	6.5%	3.1
South Carolina	19.5%	40.2%	20.7	8.3%	22.6%	14.3	2.8%	8.3%	5.5
South Dakota	16.1%	26.3%	10.3	7.8%	13.4%	5.6	7.8%	9.5%	1.7
Tennessee	19.9%	33.0%	13.1	6.9%	15.6%	8.7	3.8%	7.6%	3.8
Texas	15.1%	29.0%	13.9	3.6%	13.4%	9.8	1.8%	3.2%	1.4
Utah	14.6%	17.8%	3.2	5.2%	8.0%	2.8	3.9%	4.8%	0.9
Vermont	27.1%	37.1%	10.0	13.6%	21.5%	7.9	7.8%	8.7%	0.9
Virginia	18.5%	25.9%	7.4	7.9%	12.9%	5.0	2.5%	4.7%	2.2
Washington	16.3%	27.0%	10.7	5.9%	10.7%	4.9	2.6%	5.4%	2.7
West Virginia	22.5%	29.0%	6.5	7.2%	11.4%	4.2	4.2%	6.6%	2.4
Wisconsin	16.0%	26.1%	10.1	6.6%	13.8%	7.2	4.0%	7.0%	3.0
Wyoming	14.8%	20.9%	6.1	4.0%	6.0%	2.0	2.3%	4.0%	1.8

*NOTE: *The Census Bureau measures household income according to the concept of money income.*

SOURCE: *National Center for Education Statistics, Digest of Education Statistics, various years; College Board, Trends in Higher Education Series: Community Colleges, 2010; and US Census Bureau, Current Population Survey, Table H-8, Median Household Income by State.*

Table A7 | **AVERAGE COHORT GRADUATION RATES FOR ALL INSTITUTIONS OF HIGHER EDUCATION, BY STATE, 1990S AND 2000S**

	Four-Year Institutions†			Two-Year Institutions††		
State	1990s Cohorts °	2000s Cohorts °	Percentage Point Change	1990s Cohorts °°	2000s Cohorts °°	Percentage Point Change
United States	53.4%	55.9%	2.6	29.7%	29.1%	(0.6)
Alabama	47.4%	47.3%	(0.2)	20.7%	20.7%	0.0
Alaska	26.9%	23.0%	(3.9)	38.8%	26.2%	(12.6)
Arizona	48.6%	50.5%	1.9	44.7%	45.2%	0.5
Arkansas	36.6%	42.3%	5.7	22.5%	23.9%	1.4
California	58.2%	62.7%	4.6	44.7%	40.4%	(4.3)
Colorado	50.3%	53.0%	2.7	35.5%	37.8%	2.3
Connecticut	61.3%	63.4%	2.1	33.3%	15.0%	(18.3)
Delaware	62.6%	64.1%	1.5	12.4%	12.6%	0.2
Florida	52.3%	51.6%	(0.7)	35.7%	42.1%	6.4
Georgia	42.8%	47.8%	5.1	25.3%	28.1%	2.8
Hawaii	46.5%	42.8%	(3.7)	20.1%	20.1%	(0.1)
Idaho	40.6%	43.0%	2.5	41.3%	33.5%	(7.8)
Illinois	56.4%	58.8%	2.4	24.2%	24.9%	0.8
Indiana	54.0%	55.7%	1.7	34.6%	28.8%	(5.8)
Iowa	62.0%	63.1%	1.0	36.4%	34.2%	(2.2)
Kansas	48.0%	52.5%	4.5	37.0%	34.2%	(2.8)
Kentucky	40.1%	46.3%	6.1	21.1%	23.7%	2.6
Louisiana	35.6%	41.0%	5.4	42.1%	30.0%	(12.1)
Maine	56.3%	57.1%	0.8	46.1%	31.9%	(14.2)
Maryland	60.9%	64.7%	3.9	13.5%	17.9%	4.4
Massachusetts	64.6%	68.4%	3.8	27.8%	19.0%	(8.8)
Michigan	55.3%	54.9%	(0.5)	18.3%	16.0%	(2.3)
Minnesota	54.3%	58.7%	4.5	42.3%	32.9%	(9.4)
Mississippi	46.7%	50.2%	3.5	27.7%	24.6%	(3.1)
Missouri	51.4%	56.0%	4.6	39.4%	33.3%	(6.1)
Montana	41.3%	43.4%	2.2	34.8%	30.2%	(4.5)
Nebraska	48.0%	55.5%	7.5	40.4%	33.9%	(6.6)
Nevada	39.5%	37.0%	(2.5)	30.1%	34.9%	4.8
New Hampshire	63.6%	62.2%	(1.4)	37.8%	34.5%	(3.3)
New Jersey	59.3%	61.6%	2.3	14.1%	14.6%	0.5
New Mexico	37.8%	39.4%	1.6	22.4%	19.4%	(3.0)
New York	54.6%	58.1%	3.5	25.7%	24.1%	(1.7)
North Carolina	57.0%	58.4%	1.4	21.5%	20.9%	(0.7)
North Dakota	43.8%	47.2%	3.4	41.9%	35.3%	(6.5)
Ohio	52.4%	55.1%	2.7	23.9%	26.5%	2.6
Oklahoma	39.7%	44.3%	4.7	21.7%	27.3%	5.6
Oregon	52.2%	56.3%	4.0	22.9%	25.8%	2.9
Pennsylvania	62.2%	65.0%	2.7	43.2%	40.3%	(2.9)
Rhode Island	66.2%	64.7%	(1.5)	12.1%	15.0%	2.9
South Carolina	53.9%	57.2%	3.3	16.7%	15.3%	(1.4)
South Dakota	44.2%	45.6%	1.4	60.8%	63.5%	2.7
Tennessee	47.3%	50.6%	3.3	23.4%	28.7%	5.3
Texas	47.2%	49.9%	2.8	17.1%	20.0%	2.9
Utah	49.4%	49.2%	(0.2)	34.8%	40.2%	5.4
Vermont	61.3%	62.9%	1.7	38.3%	26.1%	(12.2)
Virginia	59.9%	62.9%	3.0	21.1%	25.7%	4.6
Washington	61.9%	63.7%	1.9	30.1%	31.8%	1.7
West Virginia	40.6%	44.0%	3.4	39.1%	28.5%	(10.6)
Wisconsin	55.7%	58.3%	2.7	35.6%	34.2%	(1.4)
Wyoming	51.9%	55.6%	3.8	44.3%	57.0%	12.7

*NOTE: *This table reflects graduation rates for all institutions of higher education in a state: public, private, and for-profit.*
† The cohort graduation rate for four-year colleges reflects the share of students who graduated within six years (150% time) of enrollment.
†† The cohort graduation rate for two-year colleges reflects the share of students who graduated within three years (150% time) of enrollment.
° The 1990s cohorts are those that initially enrolled between 1991 and 1998, while the 2000s cohorts are those that initially enrolled between 1999 and 2003.
°° The 1990s cohorts are those that initially enrolled between 1994 and 1999, while the 2000s cohorts are those that initially enrolled between 2000 and 2006. For both periods, the average value is the simple average for all the cohorts in the applicable span of time.

SOURCE: *National Center for Higher Education Management Systems.*

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