# Economics, Demography and the Future of Higher Education Policy

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## Summary

*The growing income disparity between those with college degrees and those without college degrees has already turned us into a nation of college-haves and college-have-nots. In the next 15 years, 1 million to 2 million additional young adults will be seeking access to higher education, a large proportion of them from low-income and minority families. Governors are in a unique position to influence the nation's long-run economic competitiveness and social equity by helping minority and low-income youth gain access to postsecondary education, helping higher education institutions accommodate them, and finding ways to make the enterprise more affordable.*

## New Economy Demands

The driving force behind the 21st-century economy is knowledge, and developing human capital is the best way to fuel it. As the nation's most important public policymakers on the full spectrum of education—prekindergarten through college—governors are in a unique position to determine the course of human capital development for decades to come. Important issues stand out at each step along the education pipeline, but higher education, in particular, presents governors with both unparalleled opportunities and unprecedented challenges. The most urgent priorities are accommodating a huge influx of new students, increasing access to colleges and universities for all potential students, and finding the money to make postsecondary education affordable to all. Five states—California, Florida, Georgia, New York, and Texas—will be hardest hit, but all states will need to deal with these issues. Technology is an important tool in improving higher education, but it is not the short-term solution to lowering the costs of such education. One approach is performance-based reform.

***Our ability to produce college-level knowledge will determine individual economic opportunity and our overall economic competitiveness***. We already know from the evidence of the past few decades that people are not going

anywhere in the new knowledge economy unless they go to college first. In 1959 only 20 percent of all prime-age jobs required at least some college; by 1997 the proportion was 56 percent. By 1998 more than 80 percent of managers and professionals had at least some college education, up from 59 percent 25 years earlier. Those in high-technology jobs followed a similar pattern, while the proportion of college-trained workers in education and health care started high (83 percent in 1973) and climbed even higher (95 percent in 1998). The need for postsecondary education has increased substantially even for occupations not usually associated with book learning. The share of clerical workers with some college education has more than doubled, from 25 percent to 54 percent since 1973, while the share of skilled blue-collar workers with some college education has increased from 17 percent to 28 percent.[1]

This progression has been neither even nor universal, however. Disparities persist along economic and racial lines. Nearly 80 percent of high school graduates from high-income families went directly to college in 1997, while only half the high school graduates from low-income families did so.[2] The low-income population remains disproportionately minority, and this is also where the educational fault line lies. Among young adults ages 25 to 29 in 1999, white high school graduates were more than twice as likely to have earned a bachelor's degree than high school graduates who were African American or Hispanic.

The proportion of African American and Hispanic high school graduates enrolled in college has been rising but still lags behind. While 46 percent of college-age white high school graduates were enrolled in college in 1997, the proportions were 39 percent for African Americans and 36 percent for Hispanics.[3] These percentages are encouraging because they represent a narrowing of the education gap. Yet they do not tell the whole story, because a larger proportion of African Americans and Hispanics are not high school graduates and thus do not even make it into the calculation. In 1998, 90 percent of white 18- to 24-year-olds had graduated from high school, but only 81 percent of African Americans and a discouragingly low 63 percent of Hispanics had graduated from high school.[4]

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[1] Anthony P. Carnevale, *Education = Success: Empowering Hispanic Youth and Adults* (Princeton, N.J.: Educational Testing Service, 1999).

[2] U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 2000,* NCES 2000-062 (Washington, D.C.: U.S. Government Printing Office, 2000).

[3] Gladys M. Martinez and Jennifer C. Day, "School Enrollment—Social and Economic Characteristics of Students," *Current Population Survey*, P20-516 (Washington, D.C.: U.S. Government Printing Office, October 1997).

[4] Federal Interagency Forum on Child and Family Statistics, *America's Children: Key National Indicators of Well-Being* (Washington, D.C.: U.S. Government Printing Office, 2000).

Closing the racial and ethnic education gap not only would advance individual opportunity, but also would enhance the nation's wealth. For example, if we could equalize majority and minority college-level attainment, we would reduce the share of Hispanic families with officially determined "inadequate incomes" from 41 percent to 21 percent and that of African American families from 33 percent to 24 percent.[5] Moreover, the benefits would extend far beyond minority families. The increase in human capital would also add more than $230 billion to the nation's income, providing an additional $80 billion in new tax revenues.[6] Increased growth in state wealth would be $73 billion in California, $44 billion in Texas, and $22 billion in New York, and it would also spread broadly among most states (see Table 1).

College-level talent is a basic resource in growing the knowledge economy. Historically, increases in education have driven about 25 percent of the growth in the gross domestic product. With high school graduation rates moving toward 90 percent, future educational contributions to overall growth will have to come from increasing participation in prekindergarten development and increased years of postsecondary education. In addition, the rapid increase in the earnings of college graduates relative to the earnings of high school graduates through the mid-1990s is clear evidence of a shortage of college-educated workers and an oversupply of high school-educated workers. Finally, looking forward, economic projections show that among the 20 million new jobs to be created by 2008, 14 million will require at least some college education.[7]

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[5] When all reported incomes are adjusted for family size, 41 percent of Hispanics, 33 percent of African Americans, and 14 percent of whites subsist below the minimum but adequate income level. However, if Hispanics and African Americans had the same education level and commensurate earnings as whites, the earnings of Hispanic men would increase by 71 percent, Hispanic women by 34 percent, African American men by 53 percent, and African American women by 15 percent. The resulting household income distribution would leave 21 percent of Hispanic families and 24 percent of African American families in households with incomes below the minimum but adequate level.

Even after equalizing educational attainment, African American and Hispanic families still have a much higher proportion than white families with minimum but adequate incomes or below—7 percent more for Hispanics and 10 percent more for African Americans. This remaining difference is principally because, compared with whites, both Hispanics and African Americans have larger families, a younger age and earnings profile, and more single female-parent households.

[6] In 1995, 12 million Hispanic workers earned, on average, $18,300 for a total of $220 billion. If their earnings per worker equaled that of white workers, with average earnings of $28,200, total Hispanics' earnings would have been $338 billion or $118 billion more. In 1995, 14 million African American workers earned, on average, $20,200, for a total of $287 billion. If their earnings equaled that of white workers, their total earnings would have risen to $400 billion, or $113 billion more.

[7] Anthony Carnevale and Donna Desrochers, *Help Wanted: Solid Skills Required. A Prospective Look at the U.S. Labor Market* (Princeton, N.J.: Educational Testing Service, in press).

***Demography is destiny in postsecondary education***. The good news is that demographic momentum ensures ever more students on campus between now and 2015, a substantial proportion of them minorities. We already know the population pool from which most college students will be drawn between now and 2015, and that pool is getting bigger every year. The youngest members of the traditional 18- to 24-year-old college-age population—those who will turn 18 years old in 2015—were already born in 1998. By 2015 the college-age population will have grown by 43 million to about 31 million young adults.[8] Immigration is causing the minority population to grow faster than the white population. The white college-age population will expand by only 4 percent and contribute only 800,000 to that 4.3-million increase, while college-age racial and ethnic minorities will increase by 40 percent and number 3.5 million (see Table 2). It is crucial that minorities have the same access to higher education as the traditional majority.

About two-thirds of this growth in college-age young people will be concentrated in California, Florida, Georgia, New York, and Texas (see Table 3). These five states could experience an increase of 2.9 million youth by 2015. Except for Georgia, these are also the states with the highest proportion of immigrants and the greatest burgeoning of the Hispanic population. Meanwhile, the potential student population is projected to decline in 13 states in the north central and northeast regions of the country. Most youth attend college in their home state; individual governors will have to plan for very different higher education scenarios.

Presently, about 37 percent of 18- to 24-year-olds is enrolled in college. If that proportion continues, the 4.3-million growth in this age group would translate to 1.6 million additional college students during the next 15 years, not taking into account nontraditional students above age 25. As many as 200,000 of those 1.6 million additional students could be African Americans and 400,000 could be Hispanics.

This expanded minority student presence would provide economic benefits to *all* students. Research shows that both minority and majority students on diverse campuses learn problem-solving, leadership, and other critical work skills better than students on campuses with more homogeneous student bodies. Similar benefits would accrue as students enter the workforce. There is increasing evidence that diverse work teams help institutions interact successfully with a more varied market at home and abroad; discourage "groupthink;" and encourage learning, creativity, and flexibility on the job. In today's global economy, these competencies are important competitive assets.

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[8] Paul R. Campbell, *Population Projections for States—by Age, Sex, Race, and Hispanic Origin: 1995 to 2025*, PPL-047 (Washington, D.C.: U.S. Government Printing Office, 1995).

***Celebrations are Premature***. The large numbers of prospective minority college students may mask continued education gaps. Even with an additional 600,000 African Americans and Hispanics on campuses, Hispanic 18- to 24-year-olds are expected to be underrepresented in college by 8 percentage points and African Americans by 3 percentage points. If a smaller share of a larger pool of minority youth takes college admissions exams and enrolls in college, admission test scores and college performance ratings are likely to improve even as equal opportunity suffers.

Furthermore, preparing all students for college will require major investments to offer prekindergarten education and to reform elementary and secondary education. It may be tempting to meet some of those needs by diverting crucial public dollars from higher education. In addition, the overall surge in college-age youths will tax the ability of higher education institutions to meet the increased demand. Many institutions may turn to technology as an answer, but technology is expensive and is not likely to increase efficiency in time to reduce costs for these prospective students. All of these factors combine to encourage tuition increases just when the opposite—more affordable higher education—is what is needed to extend access.

## Challenges to Meeting the New Economy's Demands

Governors must respond to the challenges of meeting increased demand and closing persistent educational gaps.

***Social capital is the collateral necessary for human capital development***. We need to invest more in social capital—supportive services—to get better returns on our human capital investments in higher education. Our success in attracting and keeping low-income and minority students will depend on our ability to invest in outreach and other forms of educational and social support necessary for academic success in college. This is particularly so for nontraditional students who account for a sizable proportion of the current minority and low-income student population. Usually older and often disadvantaged minorities, these nontraditional students have the least social capital of all. They are often isolated individuals, single parents, or members of struggling families, and they tend to be working in jobs with little hope of long-term advancement. They have aged beyond the school and community support structure reserved for children and adolescents in American culture, and they are often unattached to other social and economic institutions that might provide direction and financial and psychological support. Reaching them will be our greatest challenge.

A significant barrier to postsecondary education among nontraditional students as well as low-income and minority high school graduates is that they are not aware of the many college opportunities open to them nor do they know how to apply for these benefits. Therefore, expanded counseling and recruitment efforts would likely have very large payoffs. For example, research conducted by the

National Center for Education Statistics showed that Hispanic high school graduates who are qualified for college are less likely to attend college than similarly qualified white graduates.[9] However, the research showed no difference in postsecondary entry between white high school graduates and Hispanic graduates who take the necessary steps to get into a four-year college, such as taking the College Board test and applying to college.[10] This suggests that minority families may be losing out on a college education because they do not know the admission process. Informational and counseling remedies, which are not very expensive, could go a long way to bolster Hispanic participation in higher education.

***Low-income and minority students depend heavily on student assistance, but aid has not kept pace with college costs***. While 17 percent of white undergraduates currently receive federal need-based aid, 38 percent of African American and 36 percent of Hispanic undergraduates do so.[11] Yet the real value of need-based student aid has fallen far behind the increase in college costs and even farther behind the amounts necessary to close the gap between low-income families' needs and college costs. We know that low-income student enrollments are more sensitive to increases in college costs than middle- and upper-income enrollments. One study, for example, shows that for every $1,000 annual increase in the price tag at a community college, enrollments decline by 6 percent.[12]

Even if low-income and minority students have access to some form of postsecondary education, the overwhelming majority is shut out of the most selective four-year colleges. Among students at four-year colleges whose family income places them in the lowest quintile, only 8 percent attend the 120 most selective colleges. Only 34 percent of African American students and 25 percent of Hispanic students attend the most selective 1,000 four-year colleges. More than half of Hispanic students attend community colleges.[13]

Changes in student aid policy have hindered access to postsecondary education for low-income and minority students. Federal financial aid has shifted toward middle-income students since Congress adopted the Middle Income Student Assistance Act during President Jimmy Carter's tenure. Grants are more

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[9] This was not the case for African American high school graduates.

[10] Lutz Berkner and Lisa Chavez, *Access to Postsecondary Education for the 1992 High School Graduates,* NCES 98-105 (Washington, D.C.: U.S. Government Printing Office, 1997).

[11] Lutz Berkner, *Student Financing of Undergraduate Education: 1995–96, With an Essay on Student Loans*, NCES 98-076 (Washington, D.C.: U. S. Government Printing Office, 1998).

[12] Thomas Kane, *Rising Public College Tuition and College Entry: How Well Do Public Subsidies Promote Access to College*?, NBER Working Paper 5164 (Cambridge, Mass.: National Bureau of Economic Research, 1995).

[13] Anthony P. Carnevale, *Education = Success: Empowering Hispanic Youth and Adults* (Princeton, N.J.: Educational Testing Service, 1999).

helpful to low-income students, while loans favor middle-income families. Yet loans have become the dominant form of aid, currently amounting to more than five times the value of grants. Meanwhile, the recent shift to tax-based aid in the form of credits and deductions also favors higher-income families that fill out the long form of income tax returns. At the same time, state and institutional aid programs have switched to merit-based aid that is targeted to middle-income families.

***The need to increase access to higher education will run head-on into an inevitable budget crunch for all of education***. As human capital emerges as the critical ingredient in economic growth in the knowledge economy, the pressure to spend money on all facets of education will become relentless. Governors will confront urgent demands for spending scarce public dollars on crucial priorities all along an expanded education pipeline—to make prekindergarten universal, to institute standards-based reform of elementary and secondary education, and to increase the capacity of postsecondary education institutions to accommodate all potential students.

None of these improvements will come cheap. Universal prekindergarten, for example, could cost as much as $40 billion. The additional 1.6 million postsecondary students anticipated by 2015 could cost higher education $19 billion. States, which currently pick up 35 percent of the postsecondary education bill, would have to come up with more than $6 billion at a time when they have been reducing their share of higher education spending.[14]

Ironically, in the competition for state dollars among the education sectors, governors may find it harder to justify expenditures for higher education than for prekindergarten and elementary and secondary education. Postsecondary education may become a victim of its own success and structure. If this happens, the real victims would be those who are thus denied access to higher education and the larger society that will be denied the intellectual and economic benefits of their contributions.

***Higher education is viewed as more successful and less in need of help than other parts of the education system***. "American higher education is much more productive than K-12 education—that is, it creates more learning for each dollar expended," Caroline Hoxby wrote in 1999.[15] But it is by no means perfect.

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[14] Michael S. McPherson and Morton Owen Shapiro, The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education (Princeton, N.J.: Princeton University Press, 1998), Table 3.2.

[15] Hoxby bases this observation on two pieces of evidence: 1) U.S. higher education is attractive to foreigners (the U.S. is the net importer of students); and 2) higher education's cost growth over the last 30 years is slower in real terms than growth in elementary and secondary education costs. See: Caroline Hoxby, "Where Should Federal Education Initiatives be Directed?," in *Financing College Tuition: Government*

Although spending for higher education has increased from $8,500 per student in 1971 to $10,500 per student today, the percentage of college youth attaining a bachelor's degree has fallen from 50 percent to 46 percent. Nonetheless, the implication that may be drawn is that because higher education is more productive, this sector is less in need of additional resources. Unlike elementary and secondary education, higher education is a market-based system responsive to market changes. Because it is less regulated than the elementary and secondary education sectors, higher education can adapt to cost realities more easily. The results of those adaptations are diffused through a decentralized higher education system and thus more difficult to discern. But that does not mean that society will not feel the impact of those adaptations.

Perhaps most important, higher education also has the ability to help pay for itself simply by raising tuition. However, the decision to raise college tuition and fees should not be taken lightly. It is true that college is still a very good deal, even though rising college costs has increasingly alarmed Americans. College degrees are still worth anywhere from eight to ten times their cost. That calculation may be a difficult one for median-income families, however. They have witnessed a doubling of college costs since the 1970s, while their own incomes have gone up by less than 25 percent.[16]

A decision to make colleges and universities try to pay for increasing costs by raising tuition and fees could prove counterproductive. Higher tuition will discourage enrollments, especially among low-income and minority students, the bulk of the potential new student population. Moreover, tight budgets will discourage the maintenance of quality improvements already in place and delay new investments in educational quality. Thus, the market response to this decision could be a classic case of market failure for higher education.

***Reengineering and technology will not solve our short-term cost problems***. If raising tuition and fees is not the answer, will technology come to the rescue? Technology cannot come to the rescue in time to serve the flood of new students who began arriving on college campuses in 1997. Ultimately, the reengineering of higher education into transparent institutional learning networks will make college cheaper, faster, and better for individual students, but it is less certain that efficiency improvements can increase faster than the overall demand for access. Nor is it likely that technology will save us by creating "virtual universities" for new students. Most people are not ready to get their education from a computer screen; they still want to get it in a college setting in which they interact with real professors and flesh-and-blood fellow students.

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*Policies and Educational Priorities*, 1st ed., ed. Marvin Kosters (Washington, D.C.: The AEI Press, 1999), 53–75.

[16] The College Board, "Trends in College Pricing," (New York, N.Y.: The College Board, 1999).

In general, our experience with technology in other service industries shows that technology adds value more than it reduces cost. It can reduce costs eventually, but the initial investments are expensive. And the most powerful long-term effects are not to reduce costs but to provide new kinds of added value in the form of quality, variety, customization, convenience, speed, and novelty.[17]

***Performance-based reform can deliver higher education cheaper, faster and better***. Governors are going to feel relentless pressure to find scarce resources to meet the growing economic need for postsecondary education. Rather than raising tuition or raising taxes, the most effective approach will be seeking performance-based reform. Why not award degrees according to outcome-based standards rather than time-based requirements? That is an idea whose time should be approaching. The introduction of performance standards and their alignment with assessments, curricula, and teacher preparation is already well underway in elementary and secondary education. Performance standards have grown steadily for vocationally oriented proprietary schools and community colleges. They are poised to spread to four-year colleges and graduate academic and professional programs.

There is an important caveat in the adoption of performance-based standards by institutions of higher education, however. Colleges and universities do more than simply prepare students for jobs. They also perform academic and cultural roles that are critical in a participatory political system and an individualistic culture. These missions must be factored into the higher education equation. At the same time, however, higher education cannot fulfill its cultural and academic missions without paying attention to its economic role. Ours is a society based on work.

## Conclusion

Economic demands and the structure of education policymaking have combined to place the nation's governors in a unique position to influence the nation's long-run economic competitiveness and social equity. The key resource in the 21st century will be knowledge, and our ability to develop skilled, flexible workers who know how to quickly seize knowledge and adapt to shifting tastes and markets is the fundamental challenge to furthering our economic bounty.

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[17] For information on the impacts of technology in general, see S. Zuboff, *In the Age of the Smart Machine: The Future of Work and Power* (New York, N.Y.: Basic Books, 1988); U.S. Congress, Office of Technology Assessment, *Technology and the American Economic Transition: Choices for the Future*, OTA-TET-238 (Washington, D.C.: U.S. Government Printing Office, 1988); and U.S. Congress, Office of Technology Assessment, *Making Things Better: Competing in Manufacturing*, TA-TET-443 (Washington, D.C.: U.S. Government Printing Office, 1990). For information on the role of information technology in higher education, see R. Ehrenberg, *Tuition Rising: Why College Costs So Much* (Cambridge, Mass.: Harvard University Press, 2000).

Although human capital development holds the key to both competitiveness and economic opportunity, our education decisionmakers continue to be highly fragmented and to lack coordination. This is not simply a function of our federal system of government. Human capital development, broadly conceived, spans the lifetime. Throughout the spectrum of skill development, from prekindergarten to adult education and training, the rigors of the knowledge economy have upped the ante. The types of policy levers that can influence the nature and amount of resources devoted to human capital are increasingly varied, encompassing not simply legislated appropriations, but also tax expenditures, welfare reform endeavors, university administration and governance, and accreditation, licensing, and other forms of regulation. No single state legislative committee has authority over the wide expanse of human capital development policy levers.

The education and demographic forces driving education policy during the next 15 years will result in a highly competitive clamor for resources. All education providers and sectors will be seeking greater assistance from the state. Resources are always scarce, and the pressures will grow for the reforms necessary to match scarce resources to the growing economic need for postsecondary education. The nation's governors uniquely hold broad authority and oversight over the entire spectrum of education and training and skill development, and thus they are ideally positioned to understand the weaknesses throughout the entire endeavor and to determine where additional resources will have their greatest payoff.

In their zeal to improve the efficiency of the higher education system, the nation's governors cannot forget they are also the ultimate stewards of the equity of the system. Access to higher education has become the threshold for access to good jobs. The growing income disparity between those with college degrees and those without college degrees has already turned us into a nation of college-haves and college-have-nots. In the next 15 years, 1 million to 2 million additional young adults will be seeking access to higher education, a large proportion of them from low-income and minority families. Although African American and Hispanic youth have made great strides in educational attainment during the past century, these gains need be viewed in context. Relative to whites, the nation's minority youth continue to be far behind in the attainment of college degrees. The future of our economy depends on helping minority and low-income youth gain access to postsecondary education, helping the institutions accommodate them, and finding ways to make the whole enterprise affordable. Accomplishing that monumental feat is one task that lies before the public officials at the center of education policy—the nation's governors.

## Table 1:

***Gains in State Income from Equalizing Education Opportunity for Minorities (dollars in billions)***

| State | Gains |
|---|---|
| California | $73 |
| Texas | $44 |
| New York | $22 |
| Florida | $17 |
| Georgia | $12 |
| New Jersey | $11 |
| Illinois | $9 |
| North Carolina | $8 |
| Virginia | $7 |
| Arizona | $6 |
| Michigan | $5 |
| Louisiana | $5 |
| Alabama | $5 |
| Maryland | $4 |
| District of Columbia | $4 |
| Mississippi | $4 |
| South Carolina | $4 |
| Ohio | $4 |
| Pennsylvania | $3 |
| Massachusetts | $3 |
| Tennessee | $2 |
| Washington | $2 |
| Nevada | $2 |
| Oklahoma | $2 |
| New Mexico | $2 |
| Hawaii | $2 |

| State | Gains |
|---|---|
| Arkansas | $2 |
| Missouri | $1 |
| Oregon | $1 |
| Connecticut | $1 |
| Wisconsin | $1 |
| Colorado | $1 |
| Delaware | $1 |
| Minnesota | $0 |
| Alaska | $0 |
| Utah | $0 |
| Kansas | $0 |
| Kentucky | $0 |
| Idaho | $0 |
| Nebraska | $0 |
| Rhode Island | $0 |
| Iowa | $0 |
| Montana | $0 |
| West Virginia | $0 |
| South Dakota | $0 |
| North Dakota | $0 |
| Wyoming | $0 |
| Indiana | $0 |
| Maine | $0 |
| New Hampshire | $0 |
| Vermont | $0 |

Source: Educational Testing Service, Analysis of U.S. Current Population Survey Data.

## Table 2:

***Projected National Growth in the Traditional College-age Population, 2000–2015***

| | | | Non-Hispanic | | | |
|---|---|---|---|---|---|---|
| | **Total** | **Hispanic** | **Asian/Pacific Islander** | **Black** | **Native American** | **White** |
| 2000 | 26,258,600 | 3,678,779 | 1,079,975 | 3,751,076 | 238,643 | 17,510,127 |
| 2015 | 30,515,711 | 5,755,446 | 1,769,529 | 4,430,572 | 273,876 | 18,286,288 |
| Absolute Increase | 4,257,111 | 2,076,667 | 689,554 | 679,496 | 35,233 | 776,161 |
| Percent Increase | 16.2 | 56.4 | 63.8 | 18.1 | 14.8 | 4.4 |
| Share of Growth (%) | | 48.8 | 16.2 | 16.0 | 0.8 | 18.2 |

Source: Paul R. Campbell, *Population Projections for States by Age, Sex, Race, and Hispanic Origin: 1995 to 2025,* PPL-47 (Washington, D.C.: U.S. Government Printing Office, 1996).

## Table 3:

***Projected State Growth in the Traditional College-age Population, 2000–2015***

| State | 2000 | 2015 | Absolute Increase | Percent Increase |
|---|---|---|---|---|
| California | 3,131,470 | 4,718,293 | 1,586,823 | 50.7 |
| Texas | 2,128,779 | 2,639,950 | 511,171 | 24.0 |
| New York | 1,629,083 | 1,958,481 | 329,398 | 20.2 |
| Florida | 1,253,105 | 1,537,390 | 284,285 | 22.7 |
| Georgia | 794,350 | 938,418 | 144,068 | 18.1 |
| Massachusetts | 548,967 | 681,404 | 132,437 | 24.1 |
| Virginia | 661,244 | 792,680 | 131,436 | 19.9 |
| New Jersey | 698,763 | 818,485 | 119,722 | 17.1 |
| Illinois | 1,169,289 | 1,287,962 | 118,673 | 10.1 |
| North Carolina | 724,072 | 839,033 | 114,961 | 15.9 |
| Arizona | 466,273 | 564,818 | 98,545 | 21.1 |
| Maryland | 467,530 | 564,931 | 97,401 | 20.8 |
| Washington | 557,446 | 637,519 | 80,073 | 14.4 |
| Tennessee | 545,289 | 598,780 | 53,491 | 9.8 |
| Connecticut | 275,133 | 327,511 | 52,378 | 19.0 |
| Pennsylvania | 1,066,220 | 1,116,862 | 50,642 | 4.7 |
| South Carolina | 367,713 | 416,822 | 49,109 | 13.4 |
| Colorado | 416,357 | 459,887 | 43,530 | 10.5 |
| Alabama | 432,573 | 474,222 | 41,649 | 9.6 |
| Hawaii | 120,951 | 156,012 | 35,061 | 29.0 |
| New Mexico | 186,851 | 220,384 | 33,533 | 17.9 |
| Louisiana | 473,148 | 502,218 | 29,070 | 6.1 |
| District of Columbia | 54,980 | 80,817 | 25,837 | 47.0 |
| Rhode Island | 85,792 | 108,156 | 22,364 | 26.1 |
| Utah | 296,943 | 317,042 | 20,099 | 6.8 |
| Oklahoma | 338,354 | 358,398 | 20,044 | 5.9 |
| Nevada | 168,764 | 187,216 | 18,452 | 10.9 |
| Indiana | 596,796 | 614,658 | 17,862 | 3.0 |
| Missouri | 537,867 | 555,426 | 17,559 | 3.3 |
| Oregon | 317,317 | 333,613 | 16,296 | 5.1 |
| Alaska | 72,208 | 87,809 | 15,601 | 21.6 |
| Kansas | 269,625 | 284,748 | 15,123 | 5.6 |
| New Hampshire | 109,400 | 122,551 | 13,151 | 12.0 |
| Michigan | 924,131 | 936,107 | 11,976 | 1.3 |
| Delaware | 71,873 | 80,660 | 8,787 | 12.2 |
| Vermont | 56,454 | 59,151 | 2,697 | 4.8 |
| Wyoming | 56,696 | 58,388 | 1,692 | 3.0 |
| Mississippi | 293,424 | 294,203 | 779 | 0.3 |

| | | | | |
|---|---|---|---|---|
| Nebraska | 174,815 | 173,088 | -1,727 | -1.0 |
| Maine | 110,770 | 108,451 | -2,319 | -2.1 |
| North Dakota | 73,010 | 70,533 | -2,477 | -3.4 |

| State | 2000 | 2015 | Absolute Increase | Percent Increase |
|---|---|---|---|---|
| Idaho | 148,366 | 145,439 | -2,927 | -2.0 |
| Arkansas | 252,808 | 249,447 | -3,361 | -1.3 |
| Ohio | 1,086,624 | 1,083,205 | -3,419 | -0.3 |
| South Dakota | 82,286 | 75,320 | -6,966 | -8.5 |
| Montana | 92,945 | 84,416 | -8,529 | -9.2 |
| Minnesota | 485,566 | 476,195 | -9,371 | -1.9 |
| Kentucky | 394,017 | 384,071 | -9,946 | -2.5 |
| Wisconsin | 530,041 | 513,632 | -16,409 | -3.1 |
| West Virginia | 174,053 | 153,473 | -20,580 | -11.8 |
| Iowa | 288,069 | 267,436 | -20,633 | -7.2 |

Source: Paul R. Campbell, *Population Projections for States by Age, Sex, Race, and Hispanic Origin: 1995 to 2025*, PPL-47 (Washington, D.C.: U.S. Government Printing Office, 1996).

## About the Authors

Anthony P. Carnevale is vice president for public leadership at Educational Testing Service (ETS). Prior to coming to ETS, Mr. Carnevale served as vice president and director of Human Resource Studies at the Committee for Economic Development (CED). He has served as chair of the National Commission for Employment Policy; as staff director for employment, education, training, and social service programs for the U.S. Senate Committee on the Budget; and as senior staff economist for the Government Operations Committee in the U.S. House of Representatives. Mr. Carnevale coauthored the principal affidavit in *Rodriguez v. San Antonio*, a U.S. Supreme Court action to remedy unequal tax burdens and education benefits. He has written numerous books and articles on competitiveness and human resources. His most recent books are *The American Mosaic: An In-depth Report on the Future of Diversity at Work* and *Tools and Activities for a Diverse Work Force*.

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