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Improving Higher Education Attainment for All Students: A National Imperative

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Improving Higher Education Attainment for All Students: A National Imperative

Abstract

Once a world leader, the United States has fallen behind other nations in the educational attainment of its population. Although the percentage of adults age 45 to 54 who hold at least a baccalaureate degree is higher in the United States than in other Organisation for Economic Co-operation and Development (OECD) nations, the United States now ranks below several other nations, including Norway, the Netherlands, Korea, New Zealand, Denmark, and Sweden, in the share of adults age 25 to 34 who hold this credential. While the U.S. invested heavily in the educational attainment of earlier generations, other nations have been investing substantially in their younger populations. Essentially, educational attainment has stalled in the United States, with about 30% of adults in each age cohort holding at least a bachelor's degree. Over this same period, however, educational attainment has been rising dramatically in some other nations. In Korea, for example, 34% of adults age 25 to 34 now hold at least a baccalaureate degree, up from just 17% of adults age 45 to 54.¹

Disciplines

Curriculum and Instruction | Education | Educational Assessment, Evaluation, and Research | Higher Education | Higher Education Administration | International and Comparative Education

Improving Higher Education Attainment of All Students

A National Imperative

Once a world leader, the United States has fallen behind other nations in the educational attainment of its population. Although the percentage of adults age 45 to 54 who hold at least a baccalaureate degree is higher in the United States than in other Organisation for Economic Co-operation and Development (OECD) nations, the United States now ranks below several other nations, including Norway, the Netherlands, Korea, New Zealand, Denmark, and Sweden, in the share of adults age 25 to 34 who hold this credential. While the U.S. invested heavily in the educational attainment of earlier generations, other nations have been investing substantially in their younger populations. Essentially, educational attainment has stalled in the United States, with about 30% of adults in each age cohort holding at least a bachelor's degree. Over this same period, however, educational attainment has been rising dramatically in some other nations. In Korea, for example, 34% of adults age 25 to 34 now hold at least a baccalaureate degree, up from just 17% of adults age 45 to 54.¹

Given trends in educational attainment and population growth, for 55% of U.S. adults age 25 to 64 to have at least an associate's degree by 2020—the current performance of the best-performing nation—the United States must increase annual degree production by about 8% per year.² Yet even an 8% annual increase may be insufficient for the United States to once again lead the world, since this estimate assumes that educational attainment in other countries will not continue to rise.

The Importance of Educational Attainment to Continued Prosperity

Unless educational attainment improves, workers in the United States will lack the educational skills and training required to meet the workforce demands of a global knowledge economy. Nearly all of the 30 fastest growing occupations (in terms of percentage increases) require at least some college, while nearly all of the 30 occupations experiencing the largest declines require no education beyond high school.³ Drawing on data from the Bureau of Labor of Statistics and research about the continued “upskilling” of current jobs, Anthony Carnevale, Nicole Smith, and Jeffrey Strohl project that 63% of jobs will require education beyond high school in 2018, up from 56% in 1992 and just 28% in 1973.⁴ This increase in educational requirements is attributable primarily to an expansion in the skills required for existing occupations, with smaller shares of the increase attributable to the creation of new occupations and growth of occupations that already required postsecondary education. Carnevale and colleagues further project that, at the current rate of degree production, the demand for workers with at least an associate’s degree will exceed the supply by 3 million by 2018. Eliminating this deficit will require raising annual degree production by 10%.

A focus on higher education’s role in promoting workforce readiness is also necessary because of the need to replace the knowledge and skills of retiring baby boomers, the largest and most educated generation in history.⁵ Baby boomers, individuals born between 1946 and 1964, represent nearly 40% of the total population; they began reaching typical retirement age in 2011. The retirement of so many educated workers will likely contribute to labor market shortages, as Anderson and Kennedy assert: “While the statistics vary dramatically (estimates of a labor shortage as early as 2010 range from 800,000 workers to almost 10 million), the inescapable fact remains that the ‘baby bust’ generation numbers 11 million fewer bodies than the Boomers. Even with productivity gains, technological changes, outsourcing options, and immigration inflows, there simply may not be enough workers to fill available jobs.”⁶

Although some argue that the United States suffers from an over-supply of college-educated workers, others counter that the growing wage premium paid to workers who have a college education rather than a high school diploma nullifies this claim.⁷ In short, if a college education did not improve workers’ productivity, employers would not pay college-educated workers higher wages.⁸ The OECD

agrees that more, not less, education is required. In its 2012 *Education at a Glance* report, the OECD concludes that recent rapid increases in the educational attainment of most OECD nations have not led to an oversupply of college-educated workers, arguing: “[T]here is little evidence that this expansion has led to an excess supply; on the contrary, most indicators suggest that the expansion of higher education has not kept pace with the demand for those skills. As a result, there is a widening gap in employment prospects among individuals with different levels of education and increasing earnings differentials in most countries.”⁹

Clearly, a nation or a state within a nation cannot be prosperous without a highly educated population. The OECD argues that education is critical to ensuring that the workforce has the skills required for national economic growth.¹⁰ Along the same lines, Daron Acemoglu, the Killian Professor of Economics at Massachusetts Institute of Technology, and James Robinson, the David Florence Professor of Government at Harvard University, conclude that a key force differentiating nations that are economically prosperous from nations that are poor is the extent to which a nation promotes the educational attainment of its population. These scholars stress the high price that a nation pays for a poorly educated population. Nations with low levels of educational attainment not only “fail to mobilize their nascent talent” but also fail to realize the economic growth that comes from “encourag[ing] technological innovation, invest[ing] in people, and mobiliz[ing] the talents and skills of a large number of individuals.”¹¹

Raising our nation’s educational attainment is also necessary to counteract the remarkable and growing income inequality that exists in the United States.¹² Many forces contribute to the growth in inequality in this nation, including the decline in public pensions and organized labor, and changes in tax policies. But among the recognized remedies for increasing income inequality is enabling individuals to earn high-quality postsecondary education credentials and degrees that provide meaningful and well-compensated employment.

Even though the United States is one of the world’s wealthiest nations, its income inequality is now greater than that of many other nations. Moreover, the magnitude of this inequality has increased in recent years. A number of indicators illustrate the inequality. For instance, at the extreme end of the continuum, nearly one-fifth (18%) of taxable income in 2008, up from 8% in 1980, went to the top 1% of Americans; the top 1% holds an even greater share of the total distribution of wealth in the aftermath of the Great Recession.¹³ In 2008 the disposable income of the top 10% of households in the United States was six times

income equality → ^{create} equalities in other aspects:
health, education, career

greater than the income of the bottom 10% of households. The United States has greater inequality on this measure than all other OECD nations except for Turkey, Israel, Chile, and Mexico (not the group of nations to which the U.S. tends to compare itself).¹⁴ Moreover, attention only to measures of income inequality understates the magnitude of these gaps, given the inequality that exists in many other measures of wealth, including access to affordable health care.¹⁵

The degree of income inequality, along with stagnation of economic mobility for middle- and low-income Americans, not only makes it difficult for many Americans to pay for postsecondary education but also creates deep political divides.¹⁶ The magnitude of income inequality in the United States also threatens continued economic stability and growth and has potentially negative consequences for our nation's democracy and global influence.¹⁷ If the basic American compact that success comes from working hard and "playing by the rules" is fundamentally broken, it is not hard to imagine the eventual civil unrest that might follow.¹⁸ As Nobel Prize-winning economist Joseph E. Stiglitz succinctly concludes, "Of all the costs imposed on our society by the top 1 percent, perhaps the greatest is this: the erosion of our sense of identity in which fair play, equality of opportunity, and a sense of community are so important."¹⁹

Reducing Inequality in Higher Education Attainment

The United States cannot achieve the levels of educational attainment required to reach international competitiveness goals or workforce demands without reducing the profound gaps in attainment that persist across groups and improving the educational attainment of Blacks and Hispanics, individuals from low-income families, and individuals living in countless underserved areas within states across the nation, including many inner cities and rural areas. Although research and other reports commonly highlight persisting differences in attainment based on demographic characteristics, our case studies also point to the importance of closing gaps based on geography, since higher educational attainment continues to vary dramatically based on place of residence.

Despite decades of attention from public policymakers, practitioners, and other concerned individuals, college-related outcomes vary widely across groups. For instance, although college enrollment rates have increased for all income groups, the likelihood of earning a college degree continues to rise dramatically with family income. Data from one longitudinal study show that only 11% of adults whose parents had been in the lowest-income quintile earned a college

degree, compared with 53% of adults whose parents had been in the top-income quintile.²⁰ Between 1998 and 2008, college enrollment rates of recent high school graduates trended upward for those in the lowest two quintiles: from 51% to 55% for those in the lowest quintile and from 51% to 57% for those in the second lowest quintile.²¹ Yet even with these improvements, the share of recent high school graduates enrolled in college was still 25 percentage points lower for those in the lowest than for those in the highest family income quintile in 2008: 55% versus 80%.²²

Trends in college enrollment by race/ethnicity show a similar pattern of some progress but remaining gaps. Race/ethnicity is related to, but not perfectly correlated with, income. Average incomes are lower for Blacks and Hispanics than for Whites, but not all Blacks and Hispanics have low incomes and not all Whites have high incomes.²³ Between 1990 and 2010, the share of high school graduates age 18 to 24 who were enrolled in degree-granting institutions rose from 33% to 46% among Blacks, from 29% to 44% among Hispanics, and from 40% to 49% among Whites.²⁴ Despite these increases, the share of individuals who enrolled in college immediately after graduating from high school continues to be lower among Blacks and Hispanics than among Whites: 62% and 60% versus 71% in 2010.²⁵ Because of these racial/ethnic differences in college enrollment as well as racial/ethnic group differences in other higher education outcomes, educational attainment also continues to be substantially lower for Blacks and Hispanics than for Whites. In 2009 only 18% of Blacks and 13% of Hispanics age 25 and older held at least a bachelor's degree, compared with 31% of Whites and 49% of Asians.²⁶

Demographic trends underscore the necessity of improving attainment—especially among Hispanics, who not only average low levels of educational attainment but also are one of the nation's fastest growing racial/ethnic groups. Non-Whites increased their representation among the total U.S. population by 29% over the past decade, rising from 31% of the total in 2000 to 36% in 2010.²⁷ Between 2000 and 2010, nearly all (92%) of the nation's population growth was among Hispanics, Blacks, and Asians rather than Whites.²⁸ Between 2005–6 and 2024–25, the numbers of students attending the nation's public high schools (grades 9 to 12) are projected to increase considerably among Hispanics (by 108%) and Asians (by 74%) and modestly for Blacks (13%) but decline by 11% among Whites.²⁹ In 2010, racial/ethnic "minority" groups already represented at least 50% of the population—raising questions about the continued appropri-

ateness of the term “minority”—in two of the nation’s largest states, California (60%) and Texas (55%), as well as in the District of Columbia (65%), Hawaii (77%), and New Mexico (60%). Non-Whites now represent more than 40% of the population in a number of other states, including Arizona (42%), Florida (42%), Georgia (44%), Maryland (45%), Mississippi (42%), Nevada (46%), New Jersey (41%), and New York (42%).³⁰

Clearly, the United States cannot achieve the increases in educational attainment that are required to meet workforce demands and international competitiveness goals without also closing the gaps in educational attainment based on race/ethnicity, family income, and other demographic characteristics, as well as those based on geography. Reducing inequality in higher education outcomes is essential if the nation is to achieve the improvements in educational attainment required for the United States to prosper in a global, knowledge-based society.

Closing these persisting gaps is also important for reasons of efficiency since they cause unacceptable systemic and problematic waste of resources in our educational system. As Acemoglu and Robinson and other observers suggest in their assessment of the forces that contribute to economic prosperity of nations, one source of inefficiency results from the lack of college participation among some capable individuals.³¹ When capable individuals do not enroll, neither the individuals nor society realizes the many market and non-market benefits that come from greater levels of educational attainment.

A second source of inefficiency is the high rate of failure at many stages of the educational attainment pathway. Students, families, schools, colleges and universities, the federal and state governments, and many other entities invest considerable financial and non-financial resources into the education of individuals who do not complete their academic programs or move on to maximize their academic potential. About 72% of students who first enrolled in a private non-profit college or university in 2006, 61% of students who first enrolled in a public four-year college or university, 43% of students who first enrolled in a four-year for-profit institution, and 36% of students who first enrolled in a public two-year college completed a certificate or degree within six years.³² The American Institutes for Research estimated that in just one year, and for only one cohort of students (i.e., those who first enrolled full-time in fall 2002), the current (problematically low) six-year bachelor’s degree completion rates were associated with \$3.8 billion in lost earnings to individuals, \$566 million in lost federal income taxes, and \$164 million in lost state income taxes.³³ Individuals and society deserve a better return on their investments.

Clear and Substantial Benefits of Higher Education for Individuals

Persisting gaps in educational attainment across groups are also problematic from the perspective of fairness.³⁴ Americans have long believed that higher education is an engine of opportunity, providing a mechanism for anyone—regardless of family income, skin color, or place of residence—to attain economic and social prosperity. But variations in educational achievement based on these characteristics translate into differential access to the many benefits that are increasingly bestowed on individuals with postsecondary credentials and degrees. Because of these differences, the countless economic and social benefits that accrue to those with higher levels of education are unequally distributed across the U.S. population.

Among the most visible benefits received by those with a college education is an increase in earnings. For full-time, year-round workers, lifetime earnings (i.e., over a 40-year period) are expected to be about 66% higher for bachelor’s degree recipients than for high school graduates.³⁵ Although earnings continue to be higher for men than for women, earnings increase with educational attainment regardless of gender. In 2009, median annual earnings of year-round, full-time workers were about 60% higher for men and women who had a bachelor’s degree (\$62,440 and \$46,830, respectively) than for men and women who had finished only high school (\$39,480 and \$29,150, respectively).³⁶

Employment rates increase and unemployment rates decline with the level of educational attainment. For instance, for adults age 25 and older in the first quarter of 2010, labor force participation rates were substantially higher for both men and women who had attained at least a bachelor’s degree than for those who had completed only high school (82% versus 72% for men; 73% versus 53% for women). Conversely, only 4.6% of those with at least a bachelor’s degree were unemployed, compared with 9.7% of those who had completed only high school.³⁷ Moreover, the benefits of higher educational attainment to employment persist even in an economic downturn. During the Great Recession, individuals age 21 to 24 who had a bachelor’s degree experienced fewer job losses, less loss of jobs requiring a college education, and smaller wage declines than individuals age 21 to 24 who held only a high school diploma.³⁸

The earnings premium associated with holding a college degree is not only substantial but has also grown over the past few decades.³⁹ In one quantification of this growth, Massachusetts Institute of Technology economist David Autor

estimates that workers with a bachelor's degree earned 95% more per hour than workers with a high school diploma in 2008, a noteworthy increase over the 50% earnings premium in 1980, attributing the growing wage benefit associated with holding a bachelor's degree to both increases in the earnings of workers with college degrees and declines in the earnings of those without.⁴⁰

Experts disagree on whether the observed difference in earnings between those with and those without a college education over- or understates the true magnitude of the gap. Some of the observed difference in earnings based on educational attainment is unquestionably attributable to other differences between individuals, including differences in motivation, ambition, and academic ability.⁴¹ In other words, individuals who earn a college degree would receive higher earnings even without the degree because they have greater self-motivation and other characteristics that are valued by employers. Nonetheless, although "ambition" is difficult to measure, research suggests that the observed earnings premium associated with earning a college degree is reduced but not eliminated after taking into account differences between the characteristics of individuals who do and do not complete college.⁴²

Moreover, as other scholars argue, the observed earnings premium for college graduates relative to high school graduates may actually understate the benefits that result from earning a college degree. College graduates realize not only higher wages but also other benefits that improve their financial well-being, including greater likelihood of being employed, a tendency to work more hours per week and per year, and greater likelihood of receiving nonwage benefits, including paid time-off and employer-provided retirement contributions.⁴³ College graduates also realize many non-market benefits, including improved health, longer life, greater likelihood of lifelong learning, and more informed purchases.⁴⁴ The importance of college in conferring these benefits has likely increased as the role of labor unions has declined. Union membership is typically associated with higher wages (especially for unskilled, blue-collar, and less-educated workers), better working conditions, and greater fringe benefits such as paid time off, health insurance, and retirement plans. But both the number and share of employed workers who are members of unions have declined over time. In 2003, union members numbered just 15.8 million (down from a high of 21.0 million in 1979) and 11.5% of all employed workers (down from 28.3% of all employed workers in 1954).⁴⁵

Having some education beyond high school is increasingly required for a middle-class income and upward economic mobility.⁴⁶ The likelihood of adult

children having family income or total wealth that exceeds that of their parents is higher for those who have completed at least 16 years of schooling than for those who have not. For instance, 42% of adult children with a college degree, but only 21% of those without a college degree, had \$100,000 more wealth (defined as total assets less debts) than their parents. Among those who were raised in the bottom quintile of the income distribution, 59% of those with a college degree and only 19% of those without a college degree had at least \$100,000 more wealth than their parents.⁴⁷

Moreover, over the past four decades, individuals without a college education have become increasingly concentrated among those with the lowest incomes. More than half (59%) of high school dropouts and a third (35%) of high school graduates were in the lower-income strata in 2007, considerably higher shares than in 1970 (39% and 22%, respectively). Over the same period, those with a bachelor's or graduate degree represented a growing share of those with the highest incomes. In 2007, 48% of individuals with a bachelor's degree and 61% of individuals with a graduate degree were in the upper-income income strata, a greater concentration than in 1970 (37% and 41% respectively).⁴⁸

Higher education is especially important to the upward economic mobility of individuals from the lowest-income families. Analyses of data from the Panel Study of Income Dynamics published by the [Brookings Institution] show that nearly half of adults who were from the poorest families and did not attain a college education also ended up poor. In contrast, only 16% of college-educated adults from the poorest families ended up as poor as their parents.⁴⁹ At the same time, a college degree is virtually required to gain access to the highest-income strata. Only 5% of adult children from the poorest families who did not earn a college degree had incomes in the top quintile, compared with 19% of adults from the poorest families who did earn a college degree.⁵⁰

The Convergence of Individual and Public Benefits

Clearly, individuals who participate in and graduate from college realize many substantial benefits. But too often discussion of such fundamental questions as who should go to college and who should pay for college emphasizes only the individual or private benefits, ignoring the many ways that society also benefits when more individuals enroll in and complete college.

The intertwined nature of the individual and public or societal benefits complicates efforts to cleanly differentiate them. For example, the higher annual earnings, lower rates of unemployment and poverty, and greater likelihood of

higher education,
can still change
one's life.

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 employer-provided health insurance that college graduates receive are typically framed as benefits to individuals who participate in college.⁵¹ Although these outcomes are certainly desirable for individuals, the benefits extend beyond the individual. Higher individual incomes contribute to a higher tax base and more tax revenues, lower rates of unemployment and poverty translate into less use of social support programs, and greater likelihood of employer-provided health insurance means less reliance on government-supported programs like Medicaid. College-educated individuals also enjoy better health, more job satisfaction, and greater family stability, as well as better educational outcomes for their children, all outcomes that make both the individual participant and society more generally better off.⁵²

The many substantial benefits of higher education to individuals—especially the increase in earnings—provide a convenient justification for the growing privatization of higher education costs.⁵³ The increasing responsibility that students have for paying for college is signaled most dramatically by soaring tuition costs and the growing indebtedness of college students and graduates. Over the past five years (from 2007–8 to 2012–13), average tuition and fees (the “sticker price”) for in-state students increased by 24% above the rate of inflation at public two-year colleges, 27% at public four-year colleges and universities, and 13% at private non-profit four-year colleges and universities. These patterns mirror increases that occurred during the prior five-year period (2002–3 to 2007–8), when the sticker price rose by 18% beyond the rate of inflation at public two-year colleges, 31% at public four-year colleges and universities, and 12% at private non-for-profit four-year colleges and universities.⁵⁴

Over the past ten years both the rate of borrowing and the amount of cumulative debt have also increased. For instance, 57% of individuals who received bachelor’s degrees from public four-year colleges and universities in 2010–11 had borrowed, up from 52% of bachelor’s degree recipients in 2000–1; the average amount borrowed among these graduates was \$23,800 in 2010–11, up from \$20,100 (in constant 2011 dollars) in 2000–1.⁵⁵ Both the rate of borrowing and the amount borrowed have increased regardless of family income. For instance, nearly half (42%) of dependent college students from the lowest family income quartile borrowed an average of \$6,200 in 2007–8; by comparison, 36% of dependent college students in the lowest family income quartile borrowed an average of \$3,300 in 1995–96.⁵⁶

This shifting of the burden of paying for college costs to students reflects an assumption that students are the primary beneficiaries of higher education, and

thus students (and their families) should have primary responsibility for paying the costs. Yet this view ignores the many and substantial public benefits that also result from higher education. Based on his comprehensive review of the market and non-market benefits of higher education that accrue to both individuals and society, education economist Walter McMahon estimated that societal benefits account for about half (52%) of the total benefits of higher education.⁵⁷

The increasing privatization of higher education also ignores the critical societal needs for and benefits of higher education. Throughout our nation’s history, the U.S. federal and state governments have recognized the societal benefits through public policies that encourage individual investment in higher education.⁵⁸ After World War II, for instance, the federal government provided funding for the “GI Bill,” which enabled individuals serving in the armed services to attend college and thereby helped the nation avoid major unemployment of veterans. The federal government enacted and periodically amended the Higher Education Act of 1965, authorizing programs designed to reduce the financial barriers to attendance for students from low-income families and support the transition into and through college for first-generation college students, thus expanding college opportunity for groups that had previously been excluded. State governments encouraged higher education opportunity by creating community colleges and transforming normal schools designed to prepare teachers into comprehensive colleges and universities that offered an array of professional degree programs.

In short, between World War II and until about the mid-1980s, higher education was viewed as a mechanism that benefited both individuals and society. With the GI Bill, the Higher Education Act of 1965 and its 1972 reauthorization, and other government policies (such as the creation of a progressive tax system), inequality in the United States declined.⁵⁹

Beginning in the mid-1980s, however, the orientation of public policy began to change. With the “Reagan revolution,” the federal government substantially deregulated the market, scaled-back some public programs, and shifted responsibility for other public programs to states.⁶⁰ States, in turn, began to shift more of the responsibility for funding higher education to students and their families. Inequality began to increase as the federal and some state governments reduced social programs designed to level the playing field and reduced the progressivity of the tax system and as structural changes in the economy reduced the demand for unskilled workers and increased the demand for skilled workers.⁶¹

Just as the expansion of higher education was necessary after World War II, the nation is again at a point when public policy must recognize the convergence

of the public and private benefits of higher education. This convergence must be recognized in order to ensure our nation's continued economic prosperity in a global knowledge-based society, meet the growing demand from employers for college-educated workers, and close growing gaps in educational and economic prosperity across groups. These needs all speak to the government's role—as manifest through public policy—in maximizing the benefits of higher education by encouraging greater overall educational attainment and reducing gaps in attainment across groups. The converging of public and private benefits should encourage all those interested in higher education and the associated economic and social prosperity of individuals and our nation to rethink the amount and means of governmental investment and the ways that government-sponsored policies and programs are, and should be, used not only to advance the economic well-being of individual participants but also to meet the societal need for continued economic prosperity. Stiglitz underscores the power of public policy in addressing current societal needs: “Much of the inequality that exists today is a result of governmental policy, both what the government does and what it does not do.”⁶²

According to 2011 polling data from the Pew Charitable Trusts, Economic Mobility Project, most Americans believe that government should play a role in advancing economic mobility but that it is not effectively assisting those from poor and middle-class families.⁶³ Most Americans also believe that postsecondary education and training is very important to an individual's future economic prosperity (79%) and that the government should do more to improve college affordability (80%). Suggesting the political challenges associated with identifying the most appropriate path forward, however, Americans believe that the most effective government strategies for improving economic prosperity of individuals include improving college affordability (40%) and enhancing the quality of K–12 education (40%), as well as reducing government spending (48%) and reducing government debt (43%).⁶⁴

The Role of Government in Raising Higher Education Attainment and Closing Gaps

President Obama and the leaders of philanthropic and other policy-oriented organizations have called for improvements so that the United States once again leads the world in the educational attainment of its population. Nonetheless, political support to increase the proportion of the population with some postsecondary education is uneven. Moreover, the federal and state policies that are currently in place were designed for an era of expansion in the U.S. higher edu-

cation system but not intended to virtually double rates of higher educational attainment.

FEDERAL HIGHER EDUCATION POLICIES FOCUS ON RESEARCH AND STUDENT AID

As Ronald Heck observes, public policies are determined “by the political philosophy associated with governments and the surrounding social and cultural contexts of the settings in which those governments exist.” The approach to public policy in the United States is defined by its federalist form of government. Under federalism, powers are distributed between multiple levels of government, with the federal and state governments receiving “their powers from the Constitution” and having “substantial powers and responsibilities.” Educational policymaking is influenced by governors, legislatures, and courts at the federal, state, and local government levels, as well as by government administrators, businesses, the media, and the public.⁶⁵

Although the federal government has developed many policies that influence higher education directly and indirectly, one prominent focus has been to appropriate funding to encourage the production of research at U.S. universities. This funding is concentrated in a relatively small number of colleges and universities. In 2009–10, 120 colleges and universities received 58% of the nearly \$77.5 billion awarded via federal contracts, grants, and appropriations for federally funded research and development centers.⁶⁶ Federal investment in research enhances the nation's production of basic and applied research and improves the ability of public and private universities to compete in research and development. But because federal research dollars may be used only to support research activities, this investment does little to raise the nation's educational attainment. Moreover, the universities that receive these dollars (as a group) enroll far fewer students than other sectors of higher education, particularly public community colleges and public four-year comprehensive institutions.

The primary mechanism that the federal government uses to encourage individual participation in higher education, especially among students from lower- and middle-income families, is its substantial annual investment in student financial assistance. About three-fourths of the total \$185.1 billion in student aid received by undergraduates nationwide in 2011–12 was from federal programs (i.e., Federal Pell Grants and other federal grant programs, Federal Work-Study, federal loans, and federal education tax credits).⁶⁷ Despite the magnitude of this investment, the federal government's approach to student financial assistance

lacks “philosophical coherence” as reflected by the wide array of distinct programmatic goals, lacks “well-considered patterns of policy development,” and suffers from the absence of “systematic ‘housecleaning’ to reduce the policy and program contradictions, inefficiencies, and illogics accumulated in the years since the Great Society era.” Only “operational details” of the programs have been altered over time.⁶⁸

Federal loans represent a considerable share of financial aid dollars: 52% of all federal student aid including tax credits and 38% of all undergraduate aid in 2011–12. Although student financial aid and tax credits may ease the burden of paying college costs for those who would attend anyway, student financial aid (especially need-based grants) may also promote the enrollment of students who would not have enrolled without the aid. Research demonstrates that financial aid in the form of grants is positively associated with college enrollment and choice,⁶⁹ that the positive effects are larger for grants that are awarded based on financial need than for grants awarded based on non-need criteria,⁷⁰ and that the positive effects of grants are larger for students from low-income families than for other students.⁷¹ Research also shows that loans generally are not associated with improvements in college access and completion,⁷² but students from low-income families and communities are less willing than other students to use loans to pay college costs.⁷³

THE RESPONSIBILITY OF STATES FOR IMPROVING EDUCATIONAL ATTAINMENT

Notwithstanding the federal government’s substantial investment in student financial assistance, in the United States individual states have the primary responsibility for developing policies that promote the educational attainment of their populations and close gaps in attainment across groups.⁷⁴ Public policies established by the federal government form the context for, and may interact with, the policies that state governments adopt.⁷⁵ Interactions between federal and state policies can enhance or undermine efforts to increase educational attainment.

The first major federal-state partnership in higher education was the federal Morrill Land Grant Acts (i.e., the Morrill Act of 1862 and the Morrill Act of 1890). Under these acts, the federal government gave land to eligible states so that states would develop public colleges and universities that advanced education in agriculture and mechanical arts. With the Morrill Acts, “a regularized pattern of state tax support for public universities” began.⁷⁶ Today 74 land-grant

colleges and universities (18 of which are historically Black colleges and universities) are operating nationwide.⁷⁷

Another notable example of a federal-state policy interaction is the Leveraging Educational Assistance Partnership (LEAP) Program, formerly known as the State Student Incentive Grant (SSIG) program. Originally authorized by the federal government in 1972, this program provided matching funds to states that award grants to students based on their financial need and thus incentivized the establishment of state-sponsored need-based financial aid programs in many states.⁷⁸ Nonetheless, the elimination of federal appropriations to LEAP beginning in FY2011 (compared with \$63,852 million appropriated in FY 2010) illustrates a weakening of the intergovernmental compact to improve the availability of need-based financial aid.⁷⁹ Other than student financial aid, little intergovernmental effort has focused on improving postsecondary educational outcomes.

The federal government has played a more active role in K–12 education, even though states also have primary responsibility for K–12. The federal No Child Left Behind Act (NCLB), the 2001 reauthorization of the Elementary and Secondary Education Act, is one example of federal and state policy interaction pertaining to K–12 education. Among other provisions, NCLB requires states to annually assess the basic reading and mathematics skills of public school students in select grades. States may develop their own assessments and establish their own standards but must monitor whether schools are making adequate yearly progress and report achievement separately for various subgroups, including economically disadvantaged groups, students with disabilities, students with limited English proficiency, and major racial/ethnic groups. To facilitate comparisons of academic achievement across states, the legislation also requires states that receive federal Title I funds to administer the National Assessment of Educational Progress (NAEP) in reading and mathematics to fourth and eighth graders every two years.⁸⁰ Although the high school exams that states implemented in response to NCLB emphasized the need for academic standards, some evidence suggests that they may have resulted in some unintended negative consequences, including focusing the attention of high schools, teachers, parents, and students on meeting standards that are lower than those required for college admission and completion, thus encouraging high school teachers and staff to focus only on students graduating from high school rather than also on succeeding in college.⁸¹ Other positive and negative implications of NCLB have been widely discussed and debated. Although the provisions of NCLB may be altered in the next reauthorization of the Elementary and Secondary Education Act, this intergovern-

mental work has resulted in greater attention to the measurement of student achievement and differences in achievement across groups.

Reflecting their unique historical and social contexts as well as their particular philosophies toward and priorities for education, states use a range of policies to encourage students to enroll and complete higher education.⁸² One dimension of statewide variation pertains to the organization of a state's higher education system. Although much attention has been paid to the rapid rate of growth in the private for-profit sector, in most states the vast majority of students continue to attend public institutions. In fall 2010, 72% of the more than 21 million students enrolled in degree-granting colleges and universities nationwide were attending public rather than private not-for-profit or private for-profit institutions.⁸³ But, the degree of reliance on public colleges and universities to deliver higher education varies across states and regions. More than 90% of enrollments in several western states (Alaska, Wyoming, New Mexico, and Montana) are in public colleges and universities. In contrast, private not-for-profit institutions play a much greater role in providing higher education opportunity, especially in such north-eastern states as the Massachusetts, Rhode Island, New York, and Vermont.⁸⁴ In fall 2010 for-profit institutions accounted for at least 15% of total enrollments in Florida, Colorado, Minnesota, West Virginia, Iowa, and Arizona, but less than one percent of total enrollments in Montana and Rhode Island.⁸⁵

The configuration of a state's higher education system influences the types of public policies that are required to promote higher education attainment. For instance, in fall 2010 California, New Mexico, and Wyoming directed more than half of total enrollments into community colleges.⁸⁶ A number of states with large populations also have very large numbers of students enrolled in community colleges (e.g., Texas). Community colleges have the advantage of providing higher education at a lower cost to students and taxpayers. But small shares of students transfer from community colleges and earn four-year degrees.⁸⁷ Therefore, states with large community college sectors must consider strategies for facilitating student transitions across educational sectors if they are to improve bachelor's degree attainment.

Just as the nature of higher education systems varies across states, so does the level of public subsidy that a state provides for higher education. All states provide financial support to their colleges and universities, but these subsidies vary based on the structure of the state's higher education system; its philosophy about the relative roles of students, colleges, and the state in paying for higher education; and the extent to which it seeks to incentivize enrollment at private

colleges and universities. On average, state subsidies covered 71% of education and related expenses at community colleges (i.e., \$7,404 per FTE), 54% at public master's institutions (i.e., \$6,578 per FTE), and 52% at public research universities (i.e., \$8,055 per FTE) in 2007–8.⁸⁸ But the share of education and related expenses covered by state subsidies differs dramatically across states. For instance, for public research universities, the state subsidy ranged (in 2007–8) from less than 25% in Colorado, New Hampshire, and Rhode Island, to more than 70% in Alaska, Hawaii, New York, and Wyoming.⁸⁹ Total education revenue (defined as state appropriations and net tuition less net tuition used for capital debt service) per FTE also varies. Education revenue per FTE averaged \$11,043 nationwide in FY2012, but it ranged from less than \$8,300 per FTE in Florida and Washington to more than \$16,000 per FTE in Wyoming, Alaska, and Delaware. Total education revenue per FTE over the past five years (from FY2007 to FY2012) declined by an average of 7.9% (in constant dollars) nationwide, but changes over this period varied from about a 25% decline in Idaho and Florida to a more than 15% increase in North Dakota and Illinois.⁹⁰

State higher education systems also diverge in terms of their current levels of educational attainment and the magnitude of improvement in educational attainment required to achieve international competitiveness goals. Such variations might be expected, given differences in the characteristics of higher education systems and state policy approaches as well as differences in numerous dimensions of the broader state demographic, economic, historical, and political context. Even with past and current investments, however, all states except Massachusetts must improve their performance in order for 55% of adults age 25 to 64 to have at least an associate's degree by 2020, the level of educational attainment required for international competitiveness. Table 1 illustrates the variation in required improvements, with several states (e.g., Arkansas, Louisiana, Alaska, Nevada) needing annual increases of more than 12% to reach the level of educational attainment of the best-performing nations. The large and fast-growing states of California, Texas, and Florida all require annual increases in the number of degrees produced that exceed the national average increase of 7.9%.⁹¹

Fiscal Constraints

Efforts to improve state higher education performance must occur at a time when states are experiencing, and will continue to experience, considerable constraints on and competition for available fiscal resources.⁹² Following the economic downturn that began in December 2007, most states suffered sizeable

Table 1 Educational Attainment and Annual Increase in Degree Production Required for 55% of the Population Age 25 to 64 to Hold at Least an Associate Degree by 2020

Nation	% With at Least an Associate Degree (2008)		% Increase Required		% With at Least an Associate Degree (2008)	
	Percent of Adults Age 25 to 64		Annual Increase	Rank	Age 25 to 34	Age 45 to 64
		Rank				
Nation	37.9	-	7.9	-	37.8	37.1
Alabama	31.6	42	10.0	38	31.8	30.7
Alaska	36.3	30	12.8	49	30.5	38.8
Arizona	34.4	38	10.9	44	30.7	36.9
Arkansas	26.5	49	12.3	47	25.9	25.4
California	38.6	21	9.2	34	35.9	40.1
Colorado	45.3	4	3.3	6	41.5	46.7
Connecticut	46.6	2	3.1	5	46.3	45.7
Delaware	37.0	26	8.6	32	36.4	37.2
Florida	36.8	29	8.7	33	35.3	36.9
Georgia	36.2	31	10.0	39	34.0	35.7
Hawaii	42.3	12	6.2	19	40.9	42.8
Idaho	34.8	36	9.8	37	34.1	34.9
Illinois	40.8	15	5.4	18	42.7	38.2
Indiana	33.4	40	8.3	27	36.0	31.0
Iowa	38.8	20	4.4	12	45.9	34.1
Kansas	40.5	16	5.0	15	41.5	39.1
Kentucky	29.2	47	10.7	42	32.2	26.8
Louisiana	27.0	48	12.5	48	28.1	25.9
Maine	36.8	28	8.3	26	36.2	37.4
Maryland	43.9	8	5.1	16	44.6	42.6
Massachusetts	49.6	1	-1.2	1	53.4	47.6
Michigan	35.6	33	8.4	29	35.8	34.2
Minnesota	45.0	6	2.6	4	48.3	40.9
Mississippi	29.3	46	10.8	43	31.7	27.5
Missouri	34.9	34	7.9	24	36.6	33.2
Montana	37.6	25	8.0	25	36.1	36.4
Nebraska	40.5	17	4.5	13	44.1	37.7
Nevada	30.1	45	14.5	50	28.2	32.0
New Hampshire	46.0	3	2.1	3	45.6	44.8
New Jersey	44.6	7	4.3	11	46.0	42.8
New Mexico	33.4	39	10.3	40	28.5	35.7
New York	43.7	9	3.4	7	47.7	40.8
North Carolina	36.9	27	8.5	30	36.0	36.7
North Dakota	45.2	5	1.2	2	49.5	40.9
Ohio	34.9	35	8.3	28	36.4	32.7

Table 1 (continued)

	% With at Least an Associate Degree (2008)		% Increase Required		% With at Least an Associate Degree (2008)	
	Percent of Adults Age 25 to 64		Annual Increase	Rank	Age 25 to 34	Age 45 to 64
		Rank				
Oklahoma	31.3	43	9.8	36	30.3	31.0
Oregon	38.6	22	8.5	31	36.3	39.3
Pennsylvania	37.9	24	6.2	21	42.8	34.8
Rhode Island	41.4	14	3.9	9	43.4	39.8
South Carolina	34.4	37	9.7	35	34.4	34.0
South Dakota	39.4	19	5.1	17	43.6	36.5
Tennessee	31.3	44	11.1	45	31.3	30.3
Texas	33.3	41	11.5	46	30.7	34.2
Utah	40.2	18	5.0	14	38.2	41.0
Vermont	43.6	10	3.7	8	43.8	43.5
Virginia	43.4	11	4.2	10	42.4	42.7
Washington	42.0	13	6.2	20	39.4	42.7
West Virginia	25.6	50	10.6	41	28.2	23.6
Wisconsin	38.0	23	7.2	22	39.7	35.6
Wyoming	36.0	32	7.6	23	34.3	35.4

Sources: Kelly, "Projected Degree Gap: Percent of 25 to 64 Year Olds with Associate Degrees or Higher"; National Center for Higher Education Management Systems, "ACS Educational Attainment by Degree-Level and Age-Group (American Community Survey)."

declines in revenues. Many states responded to these declines by making policy changes that reduce their ability to achieve improved educational attainment, including reducing state appropriations, increasing tuition, reducing student financial aid awards, and changing the rules for distributing resources (for example, by changing the criteria for receiving state funds or the formula for allocating state funds).

Historically, state revenue shortfalls have generally resulted in disproportionate cuts in appropriations for higher education, given higher education's traditional role as the "balance wheel" in state budgets and the ability of higher education to raise its own revenues through tuition increases.⁹³ Federal "stimulus" funds appropriated through the American Recovery and Reinvestment Act of 2009 (ARRA) ameliorated the negative impact of this decline on higher education revenues between 2009 and 2011. With ARRA support, total state and

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local revenue for higher education remained essentially unchanged during that period. However, state and local revenue at public colleges and universities declined in constant dollars even with ARRA support as enrollments increased. State and local support per FTE student in FY 2012 was at its lowest level in 25 years (after adjusting for inflation). Colleges and universities have tended to compensate for the decline in per student revenues by increasing tuition; thus, net tuition revenue per FTE rose in constant dollars by 5% each year between 2009 and 2011, and then by 9.3% between 2011 and 2012.⁹⁴

With the end of ARRA funding, the magnitude of the decline in state revenues during the Great Recession, the slow rebound in state revenues following the official end of the Great Recession, political difficulties associated with raising taxes, and potential negative implications for state budgets of the federal deficit, most states will likely face continued budget challenges into the near future.⁹⁵ States will also face continuing constraints on the availability of funds for higher education because of structural budget deficits, defined as the inability of current revenue streams to provide sufficient resources for public services, given trends in the populations to be served. Many of these structural deficits are the result of tax policies that were created to collect revenue from an economy of an earlier era rather than a global, knowledge-based economy. By 2016 the state and local budget deficit as a percent of revenues was expected to average 6% across states but range from a low of 2.1% in Maryland to a high of 10.8% in Texas and 10.9% in Mississippi.⁹⁶ Importantly, these projections likely underestimate the magnitude of the looming state fiscal challenges because they were based on pre-recession data.

Thus, states must identify ways to improve performance in a fiscal context that promises few additional state resources and continued fierce competition (especially from K-12 education and health care programs) for the resources that are available. Corina Eckl, fiscal program director at the National Council of State Legislatures, and Scott Pattison, director of the National Association of Budget Officers, poignantly describe the implications of the constrained fiscal context for higher education:

With the fiscal situation so dire for states going forward, the higher education funding model is unsustainable. . . . Even with a stronger economy and better fiscal situation for states, the increased demand for funds—for unfunded pension liabilities, health care, corrections, and other parts of the state budget—will make it difficult for recent higher education cuts to be restored. Indeed,

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stepping back to view state budgets in a larger context, many state budget experts anticipate “a new normal” of state spending growth that will be much lower than what states were accustomed to in the past.⁹⁷

The Role of States in Raising Educational Attainment

Clearly, renewed attention to the role of state government in improving higher education attainment and reducing gaps in attainment across groups is required. Although the federal government may create policies that complement and incentivize the work of states, state governments have the primary responsibility for addressing the educational needs of their state and population.

With this context as the foundation, this book addresses the following question: How can states use public policy to improve the performance of higher education to maximize the individual and societal benefits, in light of the specific characteristics of their state? These state-specific characteristics include trends in higher education performance and the nature and magnitude of required improvements, the characteristics of the state’s higher education system, and the demographic and fiscal context (as described earlier in this chapter) as well as other state-specific contextual characteristics.

We address this question by exploring, in depth, how state policy explains the performance of higher education during the past 15 to 20 years in five states: Georgia, Illinois, Maryland, Texas, and Washington. These states differ in many ways, including their overall educational attainment, disparities in attainment across groups, and the characteristics of their higher education system and governance structures, as well as other demographic, fiscal, and political contextual characteristics. Chapter 3 details the rationale for selecting these five states, compares and contrasts the characteristics of these five states with each other and all U.S. states, and summarizes the procedures that we used to conduct the single and cross-state analyses.

We define higher education performance as the college-related outcomes that lead to improved educational attainment overall and reduced inequality in attainment across groups: academic preparation for college, participation or enrollment in college, completion of college, and affordability of college. These categories include attention to a more complete array of performance indicators than used in some earlier research.⁹⁸ They mirror four of the six categories used in the National Center for Public Policy and Higher Education’s state-by-state report card, *Measuring Up*. Produced between 2000 and 2008, the biennial report card awarded states grades on each of six dimensions of performance: preparation,

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participation, affordability, completion, benefits, and learning. The indicators used in *Measuring Up*, the first national effort to systematically examine state-by-state performance, provided clear and easily understood information about different dimensions of performance as well as a mechanism for monitoring gaps in performance across different groups within a state.

Unquestionably, the journey that culminates in postsecondary educational attainment begins early in an individual's life, perhaps at birth. Despite the obvious relevance of many phases of students' formal educational experiences, including early childhood and preschool, elementary, and secondary education as well as higher education, we limit our attention to the high school and college-related segments of the educational pathway. We also consider attainment only up to completion of a baccalaureate degree. This focus not only improves the manageability and tightens the focus of our work but also reflects the present structural approach of policymakers and practitioners to education. In most U.S. states and the federal government, different although related aspects of the educational pathway continue to be treated separately, since early childhood, K-12, and higher education are typically overseen by unconnected governmental agencies, departments, and legislative committees.

Although our data collection protocols and initial conceptualization also included attention to research productivity, we do not include research excellence or productivity in our definition of higher education performance. Certainly, government support for research can create noteworthy direct and indirect benefits, particularly with regard to state and national economic development and productivity as well as quality of life.⁹⁹ However, although all states should have some investment in research, the ideal balance between investment in research and graduate study rather than undergraduate education should depend on the educational needs of the state and the characteristics of the economy.¹⁰⁰ Fostering research excellence is a responsibility that is shared by a limited number of research universities, the states in which they are located, and the federal government. When public resources are finite, pursuing research excellence may come at the expense of other statewide goals, particularly statewide efforts to promote the overall educational attainment of its population and to reduce gaps in attainment across group. The Texas case study poignantly illustrates how state efforts to expand research excellence can come at the expense of educating a growing and diverse population. Moreover, limiting state support of research activities may help ensure that resources are not spread across too many institutions, thereby diluting research quality. We exclude research performance from our definition

of higher education performance, not because we believe that states should abandon support for research universities, but because investment in research needs to be considered in light of the investments a state must make to improve higher educational attainment. Greater attention to research may create trade-offs for attainment, especially when resources are finite.

In sum, while maintaining the existing quality of research universities is important, we argue that the most pressing societal challenge facing higher education in the United States is to improve the overall educational attainment of the population and reduce gaps in educational attainment across groups. This perspective guides our definition of higher education performance.

No Silver Bullet

Following the release of the *Measuring Up* report cards, many states increased their attention to performance. These biennial report cards allowed states to monitor trends over time in their performance in the graded categories. However, although providing a useful starting point for assessing state performance, *Measuring Up* did not identify the public policies that caused a state to have better or worse performance than other states on particular indicators and did not explain the forces that caused a state's performance to improve or decline over time.

Several recent initiatives focus on the role of states in improving one particular aspect of higher education performance: college completion. These initiatives offer recommendations and resources to states seeking to improve this outcome. For instance, Complete College America, a national initiative sponsored by several foundations, asks states to commit to increasing college completion by: (1) establishing annual state- and institution-specific completion goals; (2) creating and implementing state- and institution-level plans to achieve the goals; and (3) collecting and using data to measure and publicly report progress toward achieving the goals. The National Governors Association specifies that governors who sign on to its Complete to Compete initiative take the following five steps: (1) review data to identify the state's performance at various points in the educational pipeline; (2) assess differences in performance based on race, ethnicity, family income, and geographic region within the state; (3) set targets for improvement on particular performance indicators; (4) consider the ways that current policies and regulations promote or discourage attainment; and (5) link performance to funding decisions.¹⁰¹

The "Leaders and Laggards" report issued in 2012 by the Institute for a Competitive Workforce, an affiliate of the U.S. Chamber of Commerce, also defines

higher education performance as degree completion. This report grades public higher education in each state on six dimensions: (1) student access and success; (2) efficiency and cost-effectiveness; (3) meeting labor market demand; (4) transparency and accountability; (5) policy environment; and (6) innovation. The report recommends that states promote degree completion by linking some share of state appropriations to degree completion, setting specific targets for graduation rates and other outcomes (e.g., learning or labor market outcomes), and establishing statewide articulation and transfer policies, as well as by improving measures of student learning, increasing efficiency and productivity, promoting transparency by providing more information about higher education performance, and encouraging innovative instructional approaches.¹⁰²

The reports offered by Complete College America, Complete to Compete, and Leaders and Laggards imply the need to understand current levels of performance and existing public policies in order to productively increase completion. Yet none of these reports reveals how public policy and performance are connected, how individual public policies are interrelated, or how public policies effectively improve performance within a state's particular demographic, economic, political, and historical context. Moreover, with their emphasis on college completion, these efforts ignore other critical aspects of the educational attainment process that are fundamental to improving completion. State performance in one area, such as completion, cannot be considered in isolation of other areas. In short, states are unlikely to improve degree completion without also considering how to improve other college-related outcomes, especially college preparation, participation, and affordability.

These initiatives are also unlikely to lead to meaningful improvements in higher education performance because they are focused on providing solutions to "small market failures" without recognizing the root causes.¹⁰³ Low levels of attainment and persisting gaps in attainment are not caused by ignorance of effective strategies, but reflect the absence of attention to both the political forces and economic policies that contribute to a state's higher education performance. Thus, as Acemoglu and Robinson recommend, we aim to go beyond identifying superficial solutions by instead focusing on determining the underlying causes of a state's low performance in higher education, recognizing that, although many of the "micro-market failures" may be easy to fix, creating necessary improvements is not possible without a more comprehensive and holistic approach.¹⁰⁴

Conclusion

To varying degrees, all 50 U.S. states must improve higher education performance in order to ensure the nation's continued economic prosperity in a global knowledge-based society. This improvement is essential to meeting workforce demands as well as increasing equity across groups. Drawing on case studies of five states and building on related prior research, this book offers a comprehensive and holistic framework for understanding how states can use public policy to achieve necessary improvements in higher education performance.

We eschew the current prevailing approach to improving higher education attainment. The nation's preoccupation with improving degree completion, a necessary and worthy goal, cannot be accomplished by identifying discrete "silver bullet" policies or approaches that are focused only on this narrow slice of the educational attainment process and that all states must follow. Focusing on the contribution of particular policies and practices to overall educational attainment and improved equality in attainment across groups will likely improve the efficiency and effectiveness of the resources that are allocated for these purposes, but such efforts are also likely to result only in modest overall improvements in higher education performance.

We argue that creating more substantial improvement requires a holistic and comprehensive approach. At a minimum, state leaders must consider how performance in one area (such as degree completion) is connected to performance in other areas (such as preparation), how particular policies interact to produce expected and unexpected outcomes, and how public policy approaches must be adapted to reflect the context and characteristics of the state. More broadly, such an approach requires greater attention to the role of the state in providing policy leadership and steering of higher education so as to advance a cohesive public agenda for higher education, adopting public policies that not only increase the demand for and supply of higher education but also level the playing field for higher educational opportunity, and considering how its particular contextual characteristics influence not only the relationship between public policy and performance but also the specific public policies that may be realistically adopted.