Good Policy, Good Practice

Improving Outcomes and Productivity in Higher Education: A Guide for Policymakers

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Foreword

The number of college-educated and trained Americans must expand substantially over the coming decades, and growth must include quality improvement and cost containment. These national and state priorities derive from the participation of our organizations in hundreds of meetings, hearings, and discussions with state policy leaders, including governors and their staffs, and members of legislative committees, blue ribbon commissions, and state higher education boards and commissions. In recent years, the explicit or implicit subject of almost all of these conversations has been how higher education can assure that the states and their residents can participate and compete in the knowledge-based global economy. Doing so will require significant increases in the proportion of the population who have completed programs equipping them with college-level knowledge and skills.

Demographic and economic conditions of the early 21st century give urgency to this issue. The baby boomers, the largest and best-educated generation of Americans, will soon begin to leave the workforce in large numbers. Economic competitiveness and individual opportunity increasingly require a college-educated and trained workforce. Yet worst-case projections show that average education levels of the nation and of many states may actually decline over the next decade and a half. Other nations, our economic competitors for goods, jobs, and a high standard of living, are making impressive gains, and some now outperform the United States in many important educational measures. For example, according to the Organisation for Economic Co-operation and Development's most recent (2007) report, the United States now ranks tenth in the share of its 25- to 34-year-old population that has completed high school, and tenth in the proportion holding a college degree.

For the country and for the states, responding to the global marketplace will require a "ratcheting up" of college access and completion at rates similar to what was accomplished in the four decades following World War II, when opportunities for education and training beyond high school were extended to unprecedented numbers of veterans and later to baby boomers. Hundreds of new campuses were built, and virtually all existing ones were expanded. This enormous expansion raised the nation's educational attainment—the proportion of Americans who had completed college degree and certificate

programs. In turn, this educational attainment became the foundation for national prosperity and the growth of the middle class in the second half of the 20th century.

In this new century, the challenge facing the nation and the states is not primarily one of building new campuses, but of enlisting our vast array of educational resources in another effort to significantly increase the numbers and proportions of Americans who complete degree and certificate programs. Substantial public investment in colleges and universities will be needed, and that investment must be directed to the most productive institutions, those that educate and train large numbers of Americans.

Part I of *Good Policy, Good Practice* offers examples of strategies, programs, and practices that our research finds can raise educational productivity. The examples cited in this report were compiled and organized by the National Center for Higher Education Management Systems and the National Center for Public Policy and Higher Education. We offer these examples to inform policymakers of promising practices and policy leadership that support improvements. We particularly sought programs and practices that challenged the conventional wisdom that gains in educational productivity or efficiency must necessarily come at the expense of quality or access. The three strategies and the programs described are included because they are designed to enhance higher education opportunity, educational effectiveness, *and* cost-effectiveness. They represent broad pathways to improved educational productivity that can be achieved by:

- Improving the preparation of high school students for college-level work and that of adults for college-level learning; and creating effective transitions between schools and colleges, two- and four-year colleges, and the workplace and returning college students.
- Streamlining the educational process, including curriculum and course redesign, for greater educational productivity and cost-effectiveness; and adapting educational policies to reduce course repetition, to offer incentives for degree completion, and to assess and recognize academic proficiency acquired outside the institution.
- Accommodating enrollment growth through institutions that focus on providing high-quality, cost-effective undergraduate education; avoiding "mission creep" and increases in research capacity that come at the expense of productivity and undergraduate growth; encouraging

collaboration to address unmet educational needs and underserved regions; assuring effective utilization of facilities; and encouraging and creating new institutions and systems of educational delivery.

These strategies are selected real-world examples, tested by practice. They are not a comprehensive or definitive inventory of promising ideas, nor do they address theoretical issues. Undoubtedly, there are beneficial and cost-effective educational programs with which we are not familiar or did not include. We emphasize that no single policy or practice is a silver bullet for improving educational productivity or raising the number or proportion of college graduates. Every strategy for raising productivity, improving quality, and containing costs should be examined closely, and then adapted to the conditions of particular states or institutions. Most strategies, including our examples, can have a major impact on educational productivity only if implemented on a large scale, across many institutions or entire states.

Part II of *Good Policy, Good Practice* describes the levers that state policymakers can use, directly and indirectly, to influence improvements. It is unlikely that systematic productivity gains of the magnitude needed—and that are possible with widespread adoption of the types of strategies identified in Part I—can be achieved without deliberately designed and supportive state policy frameworks. Reorientation of public investment, of statutes and regulations, of accountability measures, and, in some instances, of governance structures may be required to raise productivity. These policy levers are necessarily described in Part II with less specificity than the strategies in Part I. These levers are, we believe, relevant to most states, but implementation strategies depend on state context. Part II emphasizes the necessity of state policy support and, if needed, policy change. Without long-term state policy leadership and commitment, it is unlikely that even the most promising programs described in Part I will achieve the scale and sustainability needed for broad impact in both prosperous and lean budgetary times.

Together, Parts I and II of this document present the solid base of experience available to policy leaders as they seek to raise the higher education attainment of state residents, even in the face of fiscal constraints. There is more experience and knowledge about improving educational outcomes and policy strategies than is often recognized. We urge policymakers to draw upon and improve these examples when they, as we

believe they must, engage in development of state policies and strategies aimed at enhancing student opportunity and success while keeping college affordable for students and states. *Good Policy, Good Practice* demonstrates that states have tools—policy strategies and levers—to assure a viable economic and educational future for their citizens.

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The authors welcome the responses of readers to this report.

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Introduction

For most of the 20th century, the United States expanded educational opportunity for its residents and in doing so served as a model for other countries. In this first decade of the 21st century, however, the United States faces some disturbing facts:

- The knowledge economy is unforgiving for individuals who do not have education or training beyond high school—and for communities, states, and nations that do not have high percentages of their population with some education or training beyond high school.
- While great progress has been made, opportunities for education or training beyond high school are not as widespread as most Americans think they are, nor are they as widespread as they need to be to place Americans in good jobs, fuel economic growth, promote social mobility and social justice, and sustain the country's democratic ideals.
- Recent trends suggest that educational opportunities are in fact narrowing even as the need for education grows.
- Most states face serious budget challenges that may translate into more funding earmarked for programs like Medicaid, and less future investment in higher education.

The challenge is to help more people achieve higher levels of education and to use resources and funding wisely in the process. This report offers policymakers, state leaders, and institutions new strategies for fostering improvement in cost-effective ways. It also provides a set of policy levers that can help spur change.

For those states that do not perform well in increasing the educational level of their population, the results will cost them dearly. If current trends continue, the proportion of workers with high school diplomas and college degrees will decrease, and the average personal income of Americans will decline over the next 15 years.[1] States vary widely in their performance as students journey through high school toward college completion. For example, the average success rate of the top 25% of states in retaining students through high school into college and having them complete an associate's or bachelor's degree on time is double that of the bottom 25%.

The highest-performing states are almost three times as successful as the lowest-performing ones. Some students who initially drop out of high school or college will make their way back into the educational system. But states can increase the likelihood that students will complete high school and earn college degrees by focusing on successful policy and practice at each transition point in the educational pipeline.

Along with improving student transitions along the educational pipeline, states also need to focus on the quality of the degrees students ultimately earn. Consider the following:

- The most recent National Assessment of Adult Literacy (NAAL) found that the number of college graduates deemed proficient in literacy had declined by 40% from a decade ago.[2]
- Another study found that more than 50% of students at four-year colleges and more than 75% at two-year colleges lack the skills to perform complex literacy tasks.[3]
- Math literacy is a particular problem for these same students, according to the study. Almost 20% of students pursuing four-year degrees had only basic quantitative skills.

International comparisons reveal that the United States is losing ground in student achievement and graduation. Among adults ages 25 to 34, the United States is tenth among industrialized nations in the share of its population that has at least a high school degree, according to the Organisation for Economic Co-operation and Development. In the same age group, the United States ranks tenth in the share of young adults who hold a college degree.[4] On both measures, the United States was first in the world as recently as 20 years ago. While other countries have responded to the knowledge economy by aggressively seeking out more opportunities for their citizens, the United States has stagnated in the educational attainment of its population.

This report aims to provide state leaders with promising new ideas about how to create improvement while limiting costs. These ideas show that educational rationing—that is, the limiting of educational opportunity to certain subsections of the population—is not inevitable. Demonstrations of cost-effective policies and practices to expand educational opportunity can be found in many states, but they have rarely been implemented except as pilot projects. In our search for best practices, we did not find any state or

institution working across all the areas we cite. Unfortunately, states that had previously experimented with comprehensive approaches to productivity abandoned them when their economies improved, or to address other priorities. The best practices we document, however, are not aimed solely at helping higher education through difficult economic times. Instead, these practices and policies can help expand access, increase institutional and student success, and contain costs. What is missing is their widespread use as strategies of change. Implementing these strategies will require strong state and institutional leadership, combined with targeted incentives for funding. Most important, the implementation requires an unrelenting commitment to high standards while improving productivity. The National Center for Public Policy and Higher Education and the National Center for Higher Education Management Systems believe that state leaders can improve learning while serving more students. But these leaders must act systematically and deliberately.

Part I: Strategies for Increasing Educational Attainment

Strategy 1: Improve Productivity in the Educational Pipeline

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In seeking to increase the level of educational attainment of state residents, it is important to consider two parallel educational pipelines: one for students of traditional college age (ages 18 to 24) and one for reentry adults who are returning to postsecondary education or training. Four key transition points mark students' progress in each pipeline:

1. Preparation, typically via high school diploma or General Education Development (GED) Test;
2. Entry into higher education;
3. Persistence in higher education; and
4. Completion of higher education in a timely manner.

Both pipelines must be addressed simultaneously to significantly increase the population's educational attainment. Each state wrestles with unique challenges at the various transition points in these parallel pipelines, and performance varies significantly across states at each stage. The good news is that states have already implemented innovative strategies that seek to increase the number of students attaining postsecondary degrees while also containing costs.

A. Preparation of 18- to 24-Year-Olds

For most students, preparing effectively for college while in high school is the first challenge along the postsecondary educational pipeline. Yet high school students receive mixed signals about the knowledge and skills they need to succeed in college-level courses.[5] Students meet one set of standards to graduate from high school, and then must adapt to a new set of standards when they enroll in college. Fifty-three percent of today's college students must take at least one remedial English or math class over the course of their college careers, and students who take multiple remedial courses are less

likely to graduate.[6] This adds cost and slows down student progress.

Almost one million high school students nationwide do not graduate within four years of starting high school.[7] Graduation rates of public high school students average about 80%, but vary substantially by state, income, and race / ethnicity. More than 90% of students in New Jersey graduate from high school in four years, but less than one-half of the students in South Carolina earn a high school diploma in the same amount of time.[8] Of students from the lowest socioeconomic group, almost 40% drop out of high school.[9] Many states are seeking to provide more students with a rigorous high school curriculum that is taught by qualified teachers in order to retain students in high school and better prepare them for college.

1. Increasing High School Rigor

States are turning to college preparatory curricula as one step toward encouraging more students to take rigorous courses in high school. In 2002, 18 states offered an optional college preparatory diploma. That number has grown to 25 states.[10]

Increasing High School Rigor: Examples

The Indiana Core 40 Scholars Initiative is a rigorous sequence of high school classes covering English, social studies, math, science, physical education, and electives, such as world languages. Of Indiana's 2002 high school graduates who went to college, 84% of Core 40 diploma holders and 95% of academic honors diploma holders persisted to their second year of college, compared with 74% of regular diploma holders and 54% of GED holders. In fall 2007, Core 40 became the default requirement for all high school students. (See http://www.highereducation.org/reports/Policy_Practice/INScholars.pdf.)

Distance Delivery in South Dakota. South Dakota ensures that all students have access to a college preparatory curriculum by offering advanced high school courses via distance delivery to small high schools throughout the state. The number of students enrolled in these courses has grown from 296 in 2001–2002 to 797 in 2005–2006. From 2002 to 2005, overall student completion of courses ranged from 84% to 86%. Ninety-eight percent of course completers passed the course. (See http://www.highereducation.org/reports/Policy_Practice/Elearn.pdf.)

Middle College Charter High School. One of the longest-running experiments to increase the rigor of high school is the Middle College Charter High School located at LaGuardia Community College. Opened in 1974, the high school is jointly run by the New York City Board of Education and LaGuardia Community College. The personalized learning environment connects high school students to the worlds of college and work. With an enrollment of about 500, the school graduates about 80% of its students, and 75% enroll in college. More than 100 of the high school students take community college courses while they are in high school. The high school boasts a 95% pass rate for college courses. (See http://www.highereducation.org/reports/Policy_Practice//MCHS.pdf.)

2. Gauging College Readiness

Another approach to improving college readiness is to identify gaps in preparation for high school students so they can address academic deficiencies while still in high school.

Gauging College Readiness: Examples

California State University (CSU) Early Assessment Program. One large-scale effort underway to address college readiness is the California State University (CSU) Early Assessment Program. CSU, working with California high schools, has identified college-level knowledge and skills for CSU-bound students. High school juniors are encouraged to participate in a voluntary assessment in order to determine their readiness for college courses at one of the CSU campuses. For those who do not pass, the senior year in high school can be used to address academic deficiencies before graduating from high school and enrolling in college. (See http://www.highereducation.org/reports/Policy_Practice/EAP.pdf.)

California Partnership for Achieving Student Success. The California Partnership for Achieving Student Success (Cal-PASS) seeks to improve data-sharing among all segments of education in California (K–16) with the intention of improving student transitions and ensuring that students are prepared for the next level of rigor and coursework. Institutions participate in regional consortia that collect, analyze, and share data among the participating institutions to evaluate how well-prepared students are for the next level of education, how many students earn degrees, and what types of curriculum changes would improve student performance. (See http://www.highereducation.org/reports/Policy_Practice/CalPASS.pdf.)

ACT Assessments. Michigan, Colorado, Illinois, Wyoming, and Kentucky give the ACT college entrance exam and/or the ACT WorkKeys assessment to their high school juniors. Through their test scores, students can identify academic weaknesses while still in high school, allowing them to take courses in their senior year to improve readiness for college or work. (See http://www.highereducation.org/reports/Policy_Practice/WorkKeys.pdf.)

3. Teacher Quality

A third approach to improving preparation for college involves enhancing teacher quality, particularly as it relates to college readiness. Nationally, more than three-quarters of students are being taught by teachers who majored in the subject they teach, but large proportions of economically disadvantaged students are taught by "out-of-field" teachers.[11]

Teacher Quality: Examples

The California State University (CSU) Early Assessment Program includes a teacher-quality component. CSU faculty members, working with high school teachers, have identified student problems in writing and reading comprehension that account, in part, for poor scores on college readiness exams. (See http://www.highereducation.org/reports/Policy_Practice/EAP.pdf.)

EveryTeacher. South Dakota's Teacher Quality Enhancement Project, called EveryTeacher, is a systemic K–20 collaboration designed to increase both the content knowledge and the pedagogical skills of teachers by "impact[ing] the entire career path of teachers."[12] The program's standards are aligned with both the National Board of Professional Teaching Standards and the "highly qualified teachers" standards of No Child Left Behind.[13]

4. Acceleration

A fourth strategy for increasing preparation for college is to encourage students who are ready and motivated to enroll in college-level courses and thereby earn college credit while still in high school. Advanced Placement (AP), sponsored by the College Board, is the best-known and most common strategy for encouraging students to take college-level coursework in high school; other examples include the International Baccalaureate and the College-Level Examination Program.[14] Students who take rigorous AP courses can then take an AP exam and, depending on their performance, may receive college-level credit for taking the course. Today, nearly 60% of U.S. high schools offer at least one of the 34 AP courses, and nearly one million students took an AP exam in 2002.[15] The College Board reports that "students who succeed on one or more AP Exams are much more likely than their peers to complete a bachelor's degree in four years or less."[16]

Advanced Placement Policies: Examples

Advanced Placement Incentive Program. The Dallas Independent School District is encouraging more students to take and pass Advanced Placement (AP) exams. Ninety-three percent of the district's students are of color, and 82% are economically disadvantaged. Through the district's AP Incentive Program, students earn a prize (ranging from $100 to $500) for each AP exam on which they earn a score of three or higher. The number of passing AP exam scores earned by students at 10 district schools in 2005 was 7.6 times the number of passing scores in 1995, the year before the program began. (See http://www.highereducation.org/reports/Policy_Practice/DallasAP.pdf.)

Partnership for Minority and Underrepresented Student Achievement Act. Under the Partnership for Minority and Underrepresented Student Achievement Act, Florida has seen the largest increase in students achieving passing scores on AP exams of any state in the nation. Nineteen percent of Florida's 2004 public high school class scored a three or higher on an AP exam, compared with 13% in 2000.[17] The results were especially positive for students of color.

Dual enrollment, which enables students to enroll in credit-bearing college courses while in high school, represents another approach to acceleration. Many of these initiatives are targeted to high-achieving and highly motivated young people; some are designed for students who might not otherwise be college-bound so they can have an opportunity to study richer content and learn what the college experience might be like. As of 2003, 40 states had legislation governing dual enrollment.[18] Florida's dual enrollment program experienced a 20% increase from 1998–1999 to 2002–2003. Utah's program has doubled since 1995.[19]

Dual Enrollment: Examples

Running Start. Washington's Running Start program reaches about 10% of the state's high school juniors and seniors. Running Start students who transfer their credits to four-year institutions complete bachelor's degrees with an average of 33 fewer state-supported credits than students who enter four-year institutions as freshmen, resulting in lower net costs for both the student and the state. Once in college, Running Start students also appear to perform as well as, and in some cases better than, other college students. (See http://www.highereducation.org/reports/Policy_Practice/RunStart.pdf.)

College Now. The City University of New York (CUNY) runs the "largest public urban dual enrollment program" in the country, called College Now. The College Now alumni who entered CUNY in the fall of 2003 had a one-year retention rate of 82%, compared with a rate of 72.5% for those not participating in the program. (See http://www.highereducation.org/reports/Policy_Practice/CUNY.pdf.)

Syracuse University's Project Advance (SUPA), which began in 1973, is a strong model for concurrent enrollment. SUPA's annual reach spans 134 high schools, more than 500 high school teachers, and more than 6,000 students in New York, New Jersey, Maine, Massachusetts, and Michigan. Eighty-two percent of Project Advance's class of 1994 graduated from college within four years, higher than the national average. (See http://www.highereducation.org/reports/Policy_Practice/SUPA.pdf.)

The Early College High School Initiative, run by Jobs for the Future, is helping to establish 250 small schools that will allow students to earn a high school diploma and an associate's degree (or up to two years of college credit) in five years. A recent study concluded that early college high schools deliver a greater return on investment than comparable traditional high schools, that states benefit from their investments in early college high schools as long as the cost structure is not significantly different, and that students and families benefit from the schools. (See http://www.highereducation.org/reports/Policy_Practice/ECHS.pdf.)

B. Preparation of Nontraditional College-Age Students

As well as improving the preparation of traditional college-age students, states can also improve the preparation of adults for continuing their education or training. For example, this can include encouraging adults to complete a high school-level education, usually through a GED, and offering a specialized postsecondary curriculum targeted to those who have not participated in an educational program recently. Advancing the education of adults is particularly important for those states with stable or declining young populations, so that these states can become more competitive and benefit from the knowledge-based global economy.

Preparation for Nontraditional College-Age Students: Examples

Kentucky Adult Education (KYAE). Through targeted state funds, Kentucky has built a collaborative and systemic model to encourage its one million adults (or 40% of its working-age population) to complete high school and enroll in postsecondary education or to improve literacy. The programs run by KYAE are free to students. KYAE contracts with schools, colleges, and other organizations for the delivery of services and encourages collaboration among providers. The result is a 135% increase in enrollments between 2000 and 2005. (See http://www.highereducation.org/reports/Policy_Practice/KYAdultEd.pdf.)

The Integrated Basic Education Skills Training (I-BEST) program, a demonstration project at 10 community colleges in Washington state, teaches adults language and vocational skills simultaneously. The program, operated by the Offices of Adult Basic Education and Workforce Education at the State Board for Community and Technical Colleges, was designed to reach students who have limited English proficiency and who are seeking higher-wage and higher-skills jobs. The program ensures that campuses offer professional-technical programs that include at least one year of college training and result in the awarding of a credential. Outcomes from the demonstration sites are noteworthy. I-BEST students, when compared with traditional adult students enrolled in English proficiency programs, earned five times more college credits and were 15 times more likely to complete workforce training. (See http://www.highereducation.org/reports/Policy_Practice/IBEST.pdf.)

C. Persistence and Completion of 18- to 24-Year-Olds

Nationally, over one-half of community college students and about 74% of four-year college students return for a second year. Graduation rates for low-income and minority students at two- and four-year colleges lag substantially behind those for middle- and high-income students, as well as for white students. Even similar types of colleges and universities serving similar students vary remarkably in the percentages that graduate.[20]

One of the most important characteristics of effective first-year college programs is "intensity." Newly enrolled students have a much greater chance of completing a degree if they take a substantial number of academic credits early in their academic careers. As Clifford Adelman reports, "earning less than 20 credits in the first calendar year following postsecondary entry … lessen[s] the probability of completing a bachelor's degree by a *third*!" (emphasis in original)[21] Student financial aid policies can have an impact on intensity and on the likelihood of students returning to college their second year. Providing generous financial aid packages and targeting financial aid to those with financial need can encourage students to take more courses and reduce time spent working outside the classroom.

The development of learning communities has also proven effective in improving persistence rates from freshman to sophomore year.[22] Learning communities are typically defined as cohorts of students taking two or more courses together. The courses are often linked thematically, and the community structure allows students deeper interactions with each other and with their instructors.[23] Connecting students to each other and to a meaningful course sequence can powerfully shape learning habits and environments.

Persistence and Completion of 18- to 24-Year Olds: Examples

It All Adds Up. Freshmen at the University of New Mexico can join a math learning community called "It All Adds Up." Students in this community take Intermediate Algebra, University 101, and "What is Critical Thinking?" They also participate in peer advising.[24]

Kingsborough Community College in Brooklyn, New York, is a national model for learning communities. At Kingsborough, students take linked courses as a cohort. Studies suggest that students participating in the learning communities perform better academically than nonparticipants and that learning communities "improve academic outcomes and social ties to some extent among younger, full-time students." (See http://www.highereducation.org/reports/Policy_Practice/LearnComm.pdf.)

Broward Community College takes a case management approach in supporting its entering students who are the least prepared academically. Through this approach, incoming students enroll in a three-credit student success course in groups of about 25. "Success coaches" are assigned to work one-on-one with students to address traditional barriers to education, such as education planning, academic concerns, career counseling, time management, and family/childcare challenges. Preliminary results since this approach's inception in fall 2005 suggest that even minimal contact with success coaches resulted in positive outcomes, such as higher levels of student re-enrollment in the subsequent semester, more credit hours earned, and higher grade point averages. (See http://www.highereducation.org/reports/Policy_Practice/BCC.pdf.)

D. Persistence and Completion of Nontraditional College-Age Students

The barriers to postsecondary success for low-income adults are especially high. Two-thirds of low-income adults who entered college in 1995–1996 reported that they were seeking a bachelor's or associate's degree. However, of those adults, only 7% earned a bachelor's degree and only 8% earned an associate's degree within six years.[25]

1. Financial Incentives

Financial incentives can be among the most powerful levers for keeping adults enrolled in educational programs.

Financial Incentives: Examples

Opening Doors. In Louisiana, the innovative "Opening Doors" financial aid program, which is targeted to low-income parents enrolled in community colleges, is showing promising results. Preliminary data reveal that students receiving the Opening Doors scholarships passed more of their courses, earned more credits, were more likely to enroll full-time, and had higher rates of persistence from semester to semester.[26]

Lifelong Learning Accounts. Illinois is the first state to establish Lifelong Learning Accounts (LiLAs) for adult students to help finance their education even on a part-time, intermittent basis. The Illinois LiLA demonstration, which established such accounts for healthcare workers, provides a match to student contributions using state funds. Similar efforts are being developed in Maine and Missouri under the leadership of the Council for Adult and Experiential Learning. (See http://www.cael.org/lila-statebased.htm.)

2. Incentives for Reentry

A small percentage of students drop out of higher education with only a few requirements remaining for their degree. For example, of the 1.96 million 1992 high school seniors who enrolled in a two- or four-year college, 3.3% (or nearly 65,000 students) had earned more than 90 credits but had not earned a bachelor's degree and were no longer enrolled.[27] This population is small in terms of total numbers, but the additional cost of encouraging them to reenter college and complete a degree is also small.

Incentives for Reentry: Example

The University of New Mexico has created a pathway for its former students to return and complete their degrees. The program has systematically tracked down nearly 2,000 students who had left the school and has drawn them back to campus. So far, 68% of the returnees have earned their bachelor's degree. In addition, 100 of the participants have gone on to graduate school.[28]

E. Encouraging Articulation and Transfer

In order for states to maximize their existing investments in higher education, state policies must encourage students to transfer from two- to four-year institutions without repeating courses or losing time in the process. Recent research has shown the importance of credit transfer to the successful completion of a bachelor's degree by students who start at two-year colleges. While 82% of transfer students who had all of their credits accepted at a four-year institution completed a bachelor's degree in six years, just 42% of transfer students who had only some of their credits accepted did so.[29] Supporting community colleges as a portal for students entering higher education can be a productive state policy because of the low cost of instruction at these institutions. But it is a viable strategy only if students can and do transfer smoothly.

Transfer can be facilitated by:

- Common examinations for basic skills and common cut scores for placement into college-level work. These are present in some states (such as Florida) and promote clear public understanding of what it means to be college-ready.
- Statewide articulation agreements that guarantee transfer to four-year institutions for students at two-year institutions who complete lower-division general education requirements and an associate's degree or a specified transfer curriculum.
- Counseling and advising mechanisms and tools that reduce the likelihood that students will have to take additional courses in order to be transfer-ready.

Several states have sought to increase transfers by guaranteeing admissions into four-year institutions for students who successfully complete academic programs in community college.

Guaranteed Admissions: Examples

Florida has one of the best transfer records in the nation.[30] By state law, every community college graduate holding an associate of arts degree is considered to have met all general education requirements and is guaranteed admission into the upper division (junior status) of state universities, with a few exceptions, such as for limited access programs or teacher certification programs. Many private colleges participate as well. The state has developed a common course numbering system to ease the transfer process and operates a comprehensive online student advising system, www.facts.org, that provides transfer information to students.[31]

North Carolina has a comprehensive articulation agreement between the boards of the community college system and the University of North Carolina (UNC) system. The agreement assures admission to a four-year institution in the university system to any student graduating with an academic associate degree and a good academic record. Transfer students are guaranteed to have met all general education requirements and to be accepted with junior status. North Carolina has also defined a 44-credit general education core that is accepted across all the community colleges, public four-year institutions, and 22 private colleges in the state. To assist students with the transfer process, representatives of the community colleges, the UNC system, and the independent colleges maintain a common course library.[32]

Virginia's 2005 Restructuring Act spurred significant efforts by four-year institutions to either formalize or begin negotiating new transfer and articulation agreements with the state community college system. Previous agreements only required public universities to make transfer information "conveniently" available. The details of the agreements vary with each institution, taking the form of joint admission or guaranteed admission upon completion of a transfer curriculum and specified grade point average. (See http://www.highereducation.org/reports/checks_balances/virginia.pdf.)

Other states or systems have taken a "proficiency" approach to transfer, in which students must demonstrate that they have mastered the skills and knowledge necessary to complete upper-division work. One of the benefits of a proficiency approach is that it helps to identify for students the knowledge and skills embedded in the coursework and courses of study—and thereby connects educational programs across institutions, ensuring that degrees earned represent more than a collection of disparate courses.

Proficiency Approach for Transfer: Examples

City University of New York. In the City University of New York (CUNY) system, students seeking admission to a baccalaureate program must demonstrate skills proficiency if they hold fewer than 45 credits when they apply. They can demonstrate proficiency via specified test scores on the SAT, ACT, or New York State Regents Exam, or by passing the CUNY/ACT Basic Skills Tests in Reading, Writing, and Mathematics.[33]

South Dakota. In South Dakota, transfer students are required to take the same proficiency exam that is administered to all students in the four-year system.[34] Students transferring into the system with fewer than 65 credit hours are required to take the exam before completion of the 48th credit hour or as soon as possible, and students transferring in with 65 or more credit hours must take the exam as soon as possible.[35] Students who do not pass the exam within one year of initial testing cannot register for further coursework.[36]

Policymakers interested in improving transfer rates may need to use several strategies and incentives for encouraging institutional attention and cooperation. In addition to the options outlined above, states may find that public reporting of institutional transfer rates and student success rates can draw attention to this important issue. Florida, for example, publicly reports how many students transfer and how well they do at four-year institutions. Similarly, the University of North Carolina, via the Internet, reports transfer student performance for each community college and for the system as a whole.[37]

Strategy 2: Redesign Policies to Enhance Educatinal Productivity

American higher education needs to address productivity challenges in order to sustain itself in the future. Tuition increases have already priced too many students out of the system, and public funds won't grow fast enough to make up the difference. Part of the solution lies in improving public accountability for performance to ensure taxpayer support for making investment in higher education a priority. But part of the solution must be found in improved productivity—using resources more effectively to ensure better results. "Improving productivity" encompasses a range of actions, including conducting system and institutional audits, redesigning courses to introduce more technology, developing incentives and better aligning course offerings with student demand, and shortening time-to-degree from five or six years to three or four. Many of these actions are already underway in institutions and states across the nation, and they can serve as models for implementing similar actions elsewhere. Significant productivity gains can be achieved by:

Strategy 2: Redesign Policies to Enhance Educational Productivity

1. Removing state subsidies from unproductive majors and programs;
2. Reengineering curricula and large-enrollment classes;
3. Targeting academic policies to improve quality and efficiency; and
4. Creating policies that reward the demonstration of academic proficiency and on-the-job learning.

A. Removing State Subsidies from Unproductive Majors

In seeking to improve productivity in higher education, several states have implemented processes to steer resources to the most efficient and productive academic programs. For example, Ohio and Virginia operate productivity reviews to identify majors at public institutions that may lose state subsidy if

they fall below a designated threshold. Some of the most effective approaches, however, are indirect, providing incentives for institutional academic leadership to take the necessary steps to reduce or eliminate unproductive programs and support more productive ones.

Incentives for Program Productivity: Examples

Ohio's Selective Excellence program (1985 to 1995) contained a simple provision intended to focus institutional priorities: An institution could earn an additional 1% of discretionary resources if it could demonstrate that this increment would be used to increase investments in any one academic unit by at least 5%. (For more information, contact the National Center for Higher Education Management Systems at info@nchems.org.)

The Illinois Priorities, Quality, and Productivity (PQP) program in the mid-1990s was aimed at focusing institutional effort by eliminating duplicative or unproductive programs. The Illinois Board of Higher Education established guidelines for program productivity and provided institutions with common data about individual program performance. The board allowed institutions to decide which programs to eliminate as long as they moved their aggregate performance within the guidelines. (See www.ibhe.state.il.us/.)

B. Reengineering Curricula and Courses

The program reviews and incentives for program productivity described above do not alter the basic mechanisms of instruction. Additional cost savings are possible if curricular structures and course delivery are redesigned.

1. Redesigning the Curriculum

Curricula in most programs evolve over time. As a consequence, the number of credits required for the degree tends to expand, as does the number of course options for fulfilling that requirement. These patterns tend to increase cost for institutions. Significant productivity gains can be achieved by activities that include:

- Establishing a limit of 120 student credit hours on all degree requirements, except for educationally justifiable reasons; and
- Creating a core curriculum of specifically designed and aligned courses as an alternative to distribution requirements, which offer wide selections of courses within certain subjects.

Establishing a credit-hour limit can be accomplished through state regulation, as Virginia and a few other states have done. Because curricular

reform within institutions is less subject to mandate, states may find that incentives can be effective for supporting change. For example, state funding approaches might reward institutions for reducing the number of credits needed to earn degrees. Finally, all institutions can benefit from conducting a thorough curricular audit that:

- Identifies the specific paths through established course requirements taken by the majority of students; and
- Identifies those courses in which learning outcomes are most aligned with those of the general education curricula.

Institutions should consider eliminating those courses that have the lowest enrollments and/or are poorly aligned with desired general education outcomes.

2. Reengineering Delivery of Large Courses

The National Center for Academic Transformation has demonstrated that learning outcomes can be improved and costs reduced by reengineering courses to incorporate technology and change the ways expensive human resources are utilized in the instructional process. The Center's work focuses on large lower-division courses where the greatest productivity gains can be made.[38] For states, achieving productivity gains using this approach requires:

- Utilizing this concept in many institutions and for many courses; and
- Implementing the approach at a system level—for example, using a single redesigned college algebra course throughout a multi-campus system.

The National Center for Academic Transformation is currently working with several states, including Tennessee, Ohio, and Hawaii, to implement this approach on a systemwide basis. (See www.center.rpi.edu/.)

C. Targeting Academic Policies to Improve Quality and Efficiency

Academic policies can profoundly affect costs. One way for states to deal with this problem without interfering in educational processes is to develop incentives for degree completion within a specific number of credit units earned.

1. Reducing Rework

A major inefficiency in the education system can be described as "rework," a term borrowed from industrial engineering. In an educational setting, rework can be considered the presentation of the same material to the same students multiple times. Some of this rework results from students failing courses and having to repeat them in subsequent terms. The majority of rework, however, is caused by academic policies that:

- Allow students to drop courses without academic penalty—in some cases as late as the week before finals;
- Allow students to repeat courses they have already completed in order to attain higher grades; and
- Force students to repeat failed courses in their entirety instead of repeating those components they failed—which is a problem particularly for developmental and basic skills courses.

Each student who drops or repeats a course is filling a seat that could be filled by another student. Several tools can promote improvement in course completion. Some are regulatory, while others create incentives for desired behaviors. Regulatory approaches include requiring institutional academic policies that are less forgiving of drops and withdrawals. Tightening these policies can take the form of:

- Counting all credits for which a student enrolls against the maximum number that will be underwritten with state funds (commonly known as the "cap");
- Reducing the time period during which no-penalty drops are allowed; and
- Limiting the number of times a student may enroll in the same course.

States can encourage institutions to improve course completion rates by changing the reporting date (commonly known as the "census date") that enrollments are counted for funding purposes. States commonly base funding allocations on enrollments that are calculated early in the academic term, frequently during the third week. Once the census date passes, institutions have few incentives to minimize withdrawals; in fact, if students withdraw, faculty can teach smaller classes, and students who drop the course one semester are likely to reenroll later and again be counted for funding

purposes. A very different dynamic would be created if course completions rather than third-week enrollments were used as the basis for state funding allocations. Under such an arrangement, institutions would have every incentive to mobilize their counseling and other student support resources to ensure that:

- Students are serious about the courses in which they enroll—not over-enrolling with the intent to drop several courses after a period of assessing their likelihood of doing well in them or enjoying them; and
- Students who do enroll also complete the course successfully.

Both of these approaches are now in place at the University of Texas.

2. Creating Incentives for Degree Completion

Degree completion—not course completion—is the objective of higher education. As a result, it makes sense for states to create incentives for institutions to improve degree completion rates.

Incentive Approaches for Degree Completion: Examples

Oklahoma. An incentive funding program run by the State of Oklahoma rewards institutions for improving degree production. The program especially rewards graduating at-risk students and recognizes multiple institutions if they all contribute to the graduation of a transfer student. (See www.okhighered.org.)

The Missouri Funding for Results (FFR) program, which has been discontinued, rewarded institutions for each student graduated in selected fields (primarily science, technology, engineering, math, and foreign languages). Institutions were also rewarded for graduating students who placed above the 50th percentile on nationally normed examinations. These incentives were part of a two-tiered incentive-funding system that: 1) rewarded institutions for contributing to the accomplishment of statewide priorities, and 2) provided funds to institutions to create internal incentives to improve teaching and learning.[39]

Bundy Aid Program. The long-running Bundy Aid Program in New York rewards private institutions for graduating state residents. This program provides funding to institutions only after students have graduated. While the funding levels in recent years have been considerably below the statutorily authorized levels, the amounts remain significant. In 2003–2004, the program paid $190 per associate's degree, $475 per bachelor's degree, $301 per master's degree, and $1,442 per doctoral degree awarded. (See http://www.cicu.org/learnMore/aidprograms.php?Report_ID=1.)

Providing capitation grants—that is, funds to institutions for graduating students—is a straightforward and flexible policy tool. This approach can be applied to all graduates, to those in selected fields, or to those from selected demographic groups. Institutional performance can also be monitored easily.

A complementary approach is to provide incentives for students to complete their degrees, but examples of such incentives are more difficult to find. Perhaps the only such mechanism commonly applied is loan forgiveness, a mechanism that not only requires the student to complete a degree program, but also to practice in the field in state for a specified period of time. Other possibilities include:

- Splitting payments from capitation grants, such as the New York Bundy Aid Program, between institutions and students;
- Partial tuition rebates (for example, a semester rebate) to students who complete;
- Direct state payments to completers—in essence, a post-hoc scholarship; and
- Payments or rebates for students who complete a degree program with fewer than 120 state-funded hours of college credit (for example, through Advanced Placement).

Because graduation is the desired goal, the development and use of incentives for degree completion would better align state fiscal policy with state educational goals.

D. Creating Policies that Reward Demonstration of Academic Proficiency

1. Assessment and Test-Out Provisions

To the extent that the educational outcomes of each course can be articulated and demonstrated, then assessments that test for such outcomes can offer students a way to "test out" of courses and gain shortcuts to the degree—and can offer productivity gains for institutions and states.

Most institutions have test-out provisions for many courses, and a wide range of examinations is available. Perhaps the most common is the College-Level Examination Program (CLEP) offered by the College Board. CLEP examinations, accepted by 2,900 institutions, are available for more than 30 of the most commonly offered college-level courses. A similar examination

program, developed by Excelsior University and administered by ACT, involves 40 course-equivalent examinations and is used by more than 900 colleges and universities. Such test-out programs are typically administered separately by individual institutions, but significant gains could be achieved by operating them statewide. The Florida Community College System Proficiency Examination Program (PEP) is one example.[40] Examinations are developed centrally and are available in almost 100 subjects, primarily in occupation-related fields.

In awarding its degrees, Western Governors University (WGU) relies solely on the demonstration of academic proficiency through various forms of assessments. The more widespread such practices become, the more productive educational systems can become since students will require instruction in only those areas where they have not already acquired the necessary knowledge and skills.

2. On-the-Job Learning

There is considerable evidence that structured, on-the-job learning is beneficial to students because they can apply their knowledge and skills in workplace settings. If designed and implemented well, on-the-job learning opportunities can facilitate student learning, offer credits toward graduation, and keep costs low for educational institutions. Faculty and staff time must still be employed to organize student placement, ensure beneficial experiences, and assess learning, but much of the instructional delivery cost can be transferred to the employing organization. At the same time, student financial aid can be restructured through state work-study programs to reduce the costs to employers of making such learning opportunities available.

Strategy 3: Use and Expand Facilities to Meet State Goals

Strategy 3: Use and Expand Facilities to Meet State Goals

A. Ensuring an Adequate Supply of Undergraduate Teaching
B. Promoting Collaboration Among Colleges and Universities
C. Supporting Year-Round Operations
D. Creating New Educational Providers

Most discussions of productivity in higher education focus almost exclusively on institutions, but it is possible to have very productive institutions that, in the aggregate, yield an overall state educational system that is cost-*ineffective*. This can occur in at least two quite different ways: The system may be comprised of a combination of institutional types inappropriate to the needs of the population, or the institutions might not collaborate or share resources effectively. This section examines efforts to improve educational productivity through better use of institutional facilities and resources statewide.

Public educational institutions and their facilities can and should be used and expanded in ways that better meet state goals for raising the educational attainment of the state's population. As states seek this goal, four key components can assist them in multiplying the impact of diverse educational institutions within the state:

1. Ensuring an adequate supply of undergraduate teaching;
2. Promoting collaboration among colleges and universities;
3. Supporting year-round operations; and
4. Creating and encouraging new types of postsecondary providers.

A. Ensuring an Adequate Supply of Undergraduate Teaching

States need to invest consistently in institutions that teach large numbers of undergraduates cost-effectively. In states with little or no projected enrollment growth, there is little opportunity to "grow" the higher education system into a more cost-effective enterprise. States' decisions about the combination of institutional types—for example, the number and location of research universities, master's-level institutions, community colleges, vocational programs, public and private institutions, and urban and rural institutions—were made long ago, and any misalignments with current state educational needs are difficult (but not impossible) to rectify. Such adjustments almost always require the closing

of institutions or the altering of missions—and these shifts do not correspond with institutional goals to expand degree offerings and enhance prestige. Despite the difficulty of making such adjustments, they should nonetheless be considered. Some states have in fact successfully achieved them.

More straightforward are situations where ongoing enrollment growth allows the state to make selected additions to its system of higher education in ways that result in improved cost-effectiveness.

Ensuring an Adequate Supply of Undergraduate Teaching: Examples

New Community College Systems in Kentucky, Indiana, and Louisiana. At the time that their higher education reform initiatives were enacted, the higher education systems in Kentucky, Indiana, and Louisiana were characterized by low participation and degree attainment levels and underdeveloped community college systems. In addition, each of these states had invested in technical schools or colleges that were oriented toward old-line vocational training rather than emerging technologies. Each of the states created community and technical college systems to enhance access for historically underserved populations, better aligning higher education with the state's workforce needs in a cost-effective way. In each case, the development of a new (or substantially changed) system of institutions was the outcome of an explicit strategy to expand access to higher education at the lowest per-student cost possible.

Nevada State College. The State of Nevada created Nevada State College to accommodate enrollment growth at a per-student cost that was less expensive than the existing four-year institutions in the state. In its final report, the legislative Committee to Evaluate Higher Education Programs recommended "limiting enrollment at the universities and creating four-year capacity at baccalaureate institutions for reasons of both cost and responsiveness to the defined needs of the state…Nevada State College should accommodate the bulk of the growth in four-year enrollments."[41]

Caps at Louisiana and Indiana. Louisiana and Indiana have proposed capping undergraduate enrollments in research universities and redirecting those students to institutions that are less expensive and more focused on undergraduate education. The states' goals are to enhance the research and graduate education capacity, improve the competitiveness of the research universities, accommodate growth in undergraduate enrollments in institutions where per-student cost is lower, and place more students in environments that are more nurturing for undergraduates.

These examples illustrate how overall system costs on a per-student basis can be reduced by purposefully accommodating enrollment growth in the lowest-cost segments of the system. While such choices seem self-evident, there are many examples of contrary behavior—instances where system

capacity was expanded in ways that increased overall per-student costs. For example:

- The State of California invested in creating an additional research university, the University of California at Merced, at a cost that could have provided community college access to several times that institution's planned number of students.
- The State of Washington expanded its upper-division capacity (the junior and senior years of college) by creating branches of its research universities—and funding them at a per-student cost commensurate with the main campuses.

In both cases, states purchased a broader—and considerably more expensive—array of services than was required to promote expanded undergraduate access.

One approach to helping ensure that mission distinctions among institutions are maintained and instructional costs constrained is the funding approach employed in the United Kingdom. Separate funding streams for instruction and research are provided, and the cross-subsidies typical of universities in the United States (whereby instructional funds are used to support research) are discouraged. This requires research universities to compete with other institutions at comparable allocation levels for undergraduate instruction.

B. Promoting Collaboration Among Colleges and Universities

A principal cause of inefficiency is a "go-it-alone" campus mentality reinforced by state funding mechanisms that reward institutions for competition instead of collaboration. Significant productivity gains can be achieved if institutions are induced to function as components of a system instead of as entirely independent entities. For example, most institutions serve students within an identifiable geographic service area. But residents of these areas frequently need access to programs not offered at their local college or university. One cost-effective way to address this situation is for the local institution to collaborate with other providers to "broker in" existing programs that can be offered locally on a cost-effective basis. This approach allows the local institution to respond rapidly without making a long-term investment to address what may prove to be a short-term challenge.

Collaboration Among Colleges and Universities: Examples

Oklahoma has established "responsibility areas" (geographic regions) throughout the state. Each institution is assigned a specific responsibility area within which they are expected to identify unmet needs and respond to them cost-effectively through collaborations with other institutions.

North Dakota. The two-year campuses in North Dakota have developed and offer a joint degree program in nursing. All participating institutions offer some courses in the program, and the delivery site moves from campus to campus. This allows a needed program to be offered on a periodic basis in sparsely populated parts of the state without the typical inefficiencies associated with providing expensive programs in rural communities.

Kentucky. Contract arrangements allow allied health programs offered by Jefferson Community College in Kentucky to be offered at a neighboring community college. This approach avoids the inevitable startup costs associated with developing a new program.

These and similar approaches to collaboration require a state policy framework that induces institutions to collaborate in pursuit of their own self-interest. If institutions are expected to work together just because "it's the right thing to do," little collaboration is likely to emerge. Instead, they need an incentive to do so. For example, state finance mechanisms can allow institutions that collaborate to also share additional revenues. This can be accommodated through fiscal allocation formulas or by allowing participating institutions to access a set-aside pool of resources established specifically to foster and maintain collaboration.

C. Supporting Year-Round Operations

Another effective means for achieving greater productivity is to make better use of existing instructional resources. For example, the term-based calendar at most colleges and universities leaves a vast array of instructional facilities—classrooms, laboratories, and libraries—unused for almost a third of the year. Although summer sessions are becoming more common and are frequently well-attended at community colleges, they are not a central feature of current academic calendars. Some independent institutions have effectively used year-round enrollment as a marketing device, offering tuition discounts and the opportunity to earn a four-year degree in three years. Large numbers of public four-year institutions could do the same.

Frequently, however, state resource allocation mechanisms mitigate against such arrangements. Formula allocations in some state systems (for example, the North Carolina Community College System) do not support summer credits, and other allocations are structured as auxiliary payments.

By implementing the following policies, states could add significantly to overall degree productivity:

- Full subsidies for year-round study;
- Concrete incentives for faculty to teach and students to enroll during slack enrollment periods; and
- Tuition discounts or bonuses for early degree completion.

D. Creating New Educational Providers

In some states, enrollment growth will outpace state capacity to meet demand through the existing delivery system. An alternative is to create an additional state institution based on an alternative model. The two most promising alternative models are represented by the British Open University (BOU) and Western Governors University (WGU), either of which could be applied on a very large scale. A state-funded entity structured along one of these two models can be operated at support levels well below those of existing state institutions. An alternative might be a performance contract for services with such an institution, with the price established at a rate well below the per-student support provided to public institutions.

Creating New Educational Models: Examples

British Open University (BOU) is Britain's largest university, with more than 200,000 students each year. The business and education model for BOU is based on centralized course design and assessment. That is, full-time faculty develop (and update) cutting-edge course content and methods to assess students. Courses are taught by faculty; students are assigned a tutor to assist with course materials. Classes meet online or via video- and audio-conferencing. Small tutorial groups meet on a regular basis.[42] Cost savings are achieved through the use of adjunct faculty to teach and the use of full-time faculty to develop centralized course and assessment design.[43]

The Western Governors University (WGU) business and educational model is based on the concept of proficiency or competency—that is, allowing students to demonstrate their mastery of college-level abilities and content at any time they are ready to do so, whether or not they have completed specific courses. Instead of students earning credits based on the number of courses they take, students progress by successfully completing required assessments that test their competencies related to their degrees. The assessments are in various formats, including written assignments completed online and essay exams administered at secure testing centers. Compared with most traditional university programs, the overall cost of the WGU model is much lower because most students at WGU can graduate with about half the average number of classes as would be required at traditional universities.[44]

Part II: Levers for Policy Leadershp

Part I of this report describes a variety of approaches that have been used in states to achieve improvements in educational productivity—that is, the achievement of higher outcomes at a lower per-student cost while retaining quality. The five policy levers described below can assist state leaders in implementing the three strategies outlined in Part I. Although the strategies and policy levers are discussed separately, they should be considered as integrated elements of an overall policy framework; the successful implementation of the strategies will require effective use of the appropriate policy levers (see Appendix, Conceptual Structure). For example, to improve the efficiency of college programs, financial incentives might reward colleges for the courses that students complete, as well as for their enrollment.

Whereas Part I included a wide range of implementation examples, this section does not, primarily because the applicability of these policy levers varies greatly across states.

Levers for Policy Leadership

A. Planning and Leadership
B. Finance
   1. Allocations to Institutions
   2. Tuition Policy
   3. Student Financial Aid
C. Regulatory Policies
   1. Improve Productivity in the Educational Pipeline
   2. Redesign State/Campus Policies to Enhance Educational Productivity
   3. Use and Expand Facilities to Meet State Goals
D. Accountability
   1. Measures of Access
   2. Progression/Completion Measures
   3. Assessments of Direct Learning Outcomes
   4. Evidence from the Workplace
E. Governance

A. Planning and Leadership

Making progress at the state level on any public agenda designed to simultaneously improve quality, reduce per-student cost, and increase access requires:

- Clarity and consensus about overall goals;
- Persistence in making substantive changes over an extended period of time;
- Publicly reporting progress in attaining objectives; and
- Using every opportunity to link actions and results to the agenda being pursued.

Leadership must ensure that the agenda is not only put on the table but remains on the table. This involves use of the bully pulpit—communicating with others that operating more cost-effectively is both pragmatic and necessary in reaching state goals. The examples of best practices in Part I of this report reveal that there are ways to simultaneously achieve all three ends—quantity, quality, efficiency—not just two of the three as is commonly believed. If productivity improvement is to become a statewide priority, then educational leaders must make it so by acting persistently and consistently to pursue this objective using all the tools at their disposal.

B. Finance

Finance policy, the most potent weapon in the policy arsenal, can be structured to create powerful incentives to improve educational productivity.

1. Allocations to Institutions

Volatile state funding makes it difficult for educational systems to plan and achieve cost savings. Dramatically increasing the percentage of the state population with some education or training beyond high school requires a state commitment of funding. Cutting higher education disproportionately to other public services in economically difficult times is not a long-term strategy that supports the goal of increasing access, reducing costs, and improving quality. Protecting base resources and providing for inflation while institutions implement needed changes is critical. States must provide some stability in revenue for higher education.

The mechanisms through which state general funds are appropriated to colleges and universities almost always include enrollment levels as one important factor. Current incentives are structured so that institutions typically seek to raise as much revenue as possible (within certain limits) and spend all that is raised. For institutions to make their operations more efficient, financial incentives must be linked to the pursuit or achievement of productivity improvements. For example, financial incentives could be designed to:

- Reward colleges and universities for courses students complete, as well as for students enrolled;
- Increase the number of students who transfer from community colleges before completing their baccalaureates;

- Decrease the number of credits taken by graduating students;
- Allocate savings from productivity initiatives to fund further productivity initiatives; or
- Increase the proportion of credit hours generated through nontraditional means (for example, testing out and on-the-job learning).

2. Tuition Policy

States must establish tuition levels that take into account the affordability of higher education—that is, the price of higher education relative to income levels and growth. We recommend linking tuition charges to changes in family income. As state economies prosper, tuition would increase commensurately, but as state economies slow, tuition growth would slow. To establish this stability in tuition levels and overall revenue for higher education, states must provide stable base funding for colleges and universities. Achieving productivity increases in an environment of significant revenue instability is highly unlikely.

Tuition levels have a direct bearing on student behavior, in ways that affect educational productivity. If tuition is so high as to make student retention problematic, productivity will clearly suffer. Similarly, if tuition is so low as to limit the courses that are available, the impact on cost-effectiveness can be similarly affected. Effective tuition policy requires creating:

- Affordable tuition levels, such as linking tuition increases to increases in family income;
- Refund policies that discourage students from dropping or adding courses;
- Policies that penalize students for enrolling for excessive credits in their programs (such as charging out-of-state rates for all credits in excess of the number taken to graduate);
- Rebates for students who take fewer than 120 state-sponsored credit hours to graduate; and
- Tuition policies to encourage summer or weekend enrollments.

3. Student Financial Aid

State financial aid programs were designed primarily to assist low-income

students in paying for college. A policy approach that seeks to improve productivity in the educational pipeline might focus on more targeted forms of student financial aid. Possibilities include:

- Avoiding loans until students are in the last half of their academic programs to reduce the likelihood of students acquiring debt without gaining a credential;
- Providing increased financial aid for students who complete the entire transfer curriculum or earn an associate's degree before transferring to a four-year institution;
- Making the college preparatory curriculum a condition for financial aid for high school students;
- Ensuring that priority for financial aid goes to low-income students;
- Making aid available for part-time adult students; and
- Making the state rather than institutions responsible for distributing financial aid awards (which ensures that aid is distributed according to state priorities).

C. Regulatory Policies

A wide variety of regulatory policies affect the cost-effectiveness of institutional operations. Many policies were put in place to prevent "bad behavior" at a particular time in the past, but their costs are ongoing. Policies that regulate the following kinds of practices often fall into this category:

- Procurement practices that require an expensive process to acquire a cheap item;
- Excessively bureaucratic and lengthy hiring procedures; and
- Prohibitions against using seasonal workers to meet episodic workloads.

Institutions and state agencies should undertake a thorough policy audit that: A) analyzes key regulatory policies and assesses their impact on implementing the various strategies for productivity enhancements, and B) asks those who are closest to the action to identify those policies and procedures that get in the way of productivity enhancements. The regulatory policies and procedures outlined on page 31 link directly to the three strategies listed in Part I.

Regulatory Policies: Examples

1. Improve Productivity in the Educational Pipeline

Supportive regulatory policies:

- Limit the number of state-sponsored credit hours required for a degree.
- Encourage, not discourage, the earning of credit through alternative means.
- Require program review and assessments of content alignment.
- Discourage large numbers of course drops and adds.
- Discourage students from taking the same course multiple times with the intent of improving their grade point average.
- Allow remedial work to be tailored to specific student shortcomings.

2. Redesign State/Campus Policies to Enhance Educational Productivity

Supportive regulatory policies:

- Emphasize completion of a degree, not time-to-degree (to avoid penalizing part-time students).
- Make expectations about college readiness clear to students in grades 7 to 12, such as college placement exams in the 11th or 12th grades.
- Encourage institutions to deliver courses at times and places that meet student needs.
- Remove barriers to articulation and transfer, and instead offer such options as statewide transfer "guarantees" for the transfer curriculum, or joint admissions between community colleges and four-year institutions.

Counterproductive regulatory policies:

- Prohibit the combining of academic and vocational skills training.
- Require that all institutional credits be earned "in residence."
- Specify minimum classroom contact hours (that is, policies that value "seat time" over demonstration of learning).
- Specify the maximum number of credit hours that can be awarded on the basis of transfer, testing out, courses taken at remote sites, etc.

3. Use and Expand Facilities to Meet State Goals

Supportive regulatory policies:

- Constrain "mission creep"—particularly in the expansion of graduate and research programs.
- Eliminate overly protective service area designations, particularly if student demand is not met.
- Allow the emergence of nonpublic competitor institutions through program approval policies and financial aid policies.
- Encourage the emergence of institutions with alternative approaches to service delivery, particularly in high-demand fields.
- Encourage joint use of facilities.

D. Accountability

Accountability reports, developed from student-unit record systems where possible, should be designed to communicate clear priorities related to broadening access, improving quality, and reducing costs. The reports should be transparent in their design and should address how well the state is performing on this agenda. They should be available publicly at regular intervals and should include state-level indicators, not just indicators of institutional performance.

Accountability policies must enable states to track progress and guide incentives in three interrelated arenas:

- **Access:** Ensuring that larger numbers of qualified residents enter education or training beyond high school.
- **Affordability and Completion:** Ensuring that greater numbers of students entering postsecondary education complete a credential.
- **Learning Outcomes:** Ensuring that the credential students receive is a credential of value.

Measurements in all three areas are needed because ignoring any one of them creates perverse incentives for institutions either to become more selective or to compromise quality. The most effective state accountability systems incorporate several key elements:

- They are based on a limited set of high-profile state-level indicators focused on priorities contained in the state's higher education agenda;
- They are integrated with other policy levers to be part of a system of state actions that are all aligned with state goals;
- They are transparent and clearly communicate priority problems and needed actions to institutional leaders, key stakeholders, and the general public; and
- They are constructed both to empower institutional leaders and to hold them accountable for things they can influence or control.

Accountability Measures: Examples

The following four key areas of measurement include access, progression/completion, assessments of direct learning outcomes, and evidence from the workplace. All four areas are important in developing accountability systems for higher education performance within states.

1. Measures of Access

Most states already examine participation rates by race/ethnicity or, less frequently, by geographic region. A new and promising frontier would be for states to analyze these statistics in relation to the base population each institution is charged to serve. For example, how closely do the participation rates—by ethnicity, income, and other key criteria—at a particular institution match the population of the institution's service area?

2. Progression/Completion Measures

Most states already report graduation rates for individual institutions using federal definitions based on the Graduation Rate Survey (GRS). But the methods they use to gather graduation data are severely limited because they only include students entering college for the first time who also attend on a full-time basis. In addition, they do not account for inter-institutional transfer.

Progression/completion measures can be constructed to show the contributions of individual institutions to overall student flow at each stage of the postsecondary process, including entry, completing the first year of study, completing the second year of study, and completing a credential. Overall, such measures need to be able to show both how individual institutions are performing and how they are contributing to the state's total yield of credentials and degrees.

Constructing sophisticated performance measures like these will require additional state investment in data systems. Among the most important requirements for such systems are:

- State student-unit record systems that are capable of tracking students from the state's K–12 system into and through postsecondary education (including independent and proprietary institutions), and into the workplace or graduate study. These record systems may consist of separate articulated databases, or a single system.
- A qualifications framework (by state or across several states) that defines generic skills standards across occupations and postsecondary credentials to ensure that they are aligned, and to provide the basis for assessment. Qualifications frameworks have been established in many other countries and have proven beneficial in establishing well-articulated degree and transfer standards, as well as skills requirements, for a wide range of occupations.[45]
- The policy capacity at the state level to convert the resulting data into metrics for tracking progress and providing support for more sophisticated analyses of policy effectiveness and institutional success.

3. Assessments of Direct Learning Outcomes

The National Forum on College-Level Learning demonstrated an effective three-part approach in collecting statewide measures of learning.[46] The key elements, which could be used by states within an accountability design, included:

- Results of national assessments of literacy administered to residents who graduated from college in the state. The recently administered National Assessment of Adult Literacy (NAAL) provides a starting point.
- Additional direct assessments of student performance administered to samples of the state's about-to-graduate student population at two- and four-year institutions.
- Performance on professional licensure examinations and graduate admissions tests, such as the Graduate Record Examination (GRE).

State policies can also be established to ensure that all institutions have quality-assessment policies of their own in place and are using outcome results to improve programs. States can do this by working in partnership with regional accrediting organizations to ensure the vitality of institutional assessments. In addition, states can invest in developing institutional assessment capacity through training and convening. West Virginia, for example, recently undertook an audit of institutional assessment practices in order to strengthen them in preparation for review by the Higher Learning Commission. Statewide assessment conferences have been underwritten regularly in Colorado, New Mexico, Virginia, Washington, and, until recently, South Carolina.

4. Evidence from the Workplace

Evidence from the workplace is important in ensuring that higher education is linked with workforce needs in the state. Examples of measures in this area include:

- Earnings of college graduates by program, obtained through a link between the state's student-unit record databases in higher education and its unemployment insurance (UI) wage record files.
- Employer feedback systems that are constructed statewide.

E. Governance

Change in governance should be a tool of last resort—to be attempted only if the intended effects are crucial for improvement and cannot be attained under the current governance structure. Having said this, it can be helpful if the governance mechanism:

- Places policy leadership for adult / workforce literacy in an agency that is also responsible for postsecondary education;
- Allows equal voice for the state's teaching institutions, beyond just the flagship institution(s); and
- Fosters cooperation among trustees and regents so that productivity

and affordability become higher priorities, and so that institutions, states, and the public can monitor progress toward these important goals.

Conclusion

This report offers evidence of a wide range of strategies and policies that have been used to increase access and improve quality while reducing per-student costs in higher education. As with all descriptions of best practices, the examples herein are not comprehensive. Undoubtedly, other states and campuses have developed and implemented effective strategies that do not appear in this report. In addition, no single policy or practice offers a silver bullet to states that will raise the level of their population's educational attainment. But Part I of this report highlights a solid base of experience available to policy leaders as they seek to raise the educational attainment of state residents. And Part II outlines the key policy levers that state leaders can use to pursue the strategies outlined in Part I.

Although the strategies and policy levers are discussed in separate sections, they should be considered as integrated dimensions of an overall state framework for higher education policy, since the success of the strategies depends on pursuing appropriate policy levers. In addition, it is crucial that the policy levers be aligned with each other. Supportive funding incentives, for example, are not effective if regulations prevent institutions from pursuing them. Nor are regulatory changes likely to be implemented if state leadership is not prepared to act consistently, with intentionality, over an extended period of time to build awareness for productivity improvements.

The examples of best practices in this report show that there are ways to simultaneously achieve access, quality, and efficiency in higher education. It is up to state leaders to develop appropriate policies and practices that meet their state's unique needs for increasing the educational levels of its population. In this global knowledge-based economy that thrives on a highly skilled workforce, the costs of inaction are substantial.

Appendix: Conceptual Structure

For every educational policy implemented at the state level, it is useful to identify the incentives inherent in it for productivity improvement. The figure below offers a matrix for connecting state policy—organized into the five policy levers—with the three strategies for productivity improvement. State leaders should aim for alignment among the state policy levers (that is, across the columns), and consistency in adopting strategies to improve productivity in order to achieve increased educational attainment (that is, down the rows). A policy audit can be useful in identifying those state policies that are in line with, and those that are at cross-purposes with, productivity improvement.

Strategies for Increasing Educational Attainment	**Levers for Policy Leadership**				
	Planning and Leadership	Finance	Regulation	Accountability	Governance
	←		**Alignment**		→
1. Improve Productivity in the Educational Pipeline					
2. Redesign Policies to Enhance Educational Productivity					
3. Use and Expand Facilities to Meet State Goals					

Consistency

Notes

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The National Center for Higher Education Management Systems

The National Center for Higher Education Management Systems (NCHEMS) is a private nonprofit organization whose mission is to assist colleges and universities as they improve their management capability. Through its more than 30 years of service to higher education, NCHEMS has been committed to bridging the gap between research and practice by placing the latest managerial concepts and tools in the hands of working administrators on college and university campuses. Since its founding, NCHEMS has received widespread acclaim for developing practical responses to the strategic issues facing leaders of higher education institutions and agencies. Established to meet the needs of working administrators, NCHEMS delivers research-based expertise, practical experience, information, and a range of management tools that can help institutions improve both their efficiency and their effectiveness.

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Good Policy, Good Practice: Improving Outcomes and Productivity in Higher Education: A Guide for Policymakers, by Patrick M. Callan, Peter T. Ewell, Joni E. Finney, and Dennis P. Jones (November 2007, #07-4). This report describes a wide range of successful strategies that states can draw from to increase the educational attainment of their residents while holding down higher education costs. The report also identifies five policy levers that state leaders can use to achieve their overall goals for higher education and, more specifically, to implement the strategies for increasing educational attainment levels.

Investigating the Alignment of High School and Community College Assessments in California, by Richard S. Brown and David N. Niemi (May 2007, #07-3). This study, in examining the math and English expectations for high school students entering California's community colleges, reveals the degree of alignment between what students master in high school versus what is expected for college-level work.

"Informed Self-Placement" at American River College: A Case Study, by Jonathan E. Felder, Joni E. Finney, and Michael W. Kirst (May 2007, #07-2). This case study of American River College in Sacramento, California, examines replacing the traditional mathematics class placement test with "informed self-placement."

California Community Colleges: Making Them Stronger and More Affordable, by William Zumeta and Deborah Frankle (March 2007, #07-1). This report examines the effectiveness of statewide policies in assisting the California Community Colleges in meeting their mandate for affordability, and makes recommendations in light of today's public needs.

Measuring Up Internationally: Developing Skills and Knowledge for the Global Knowledge Economy, by Alan Wagner (September 2006, #06-7). In comparing the performance of the United States in higher education with that of advanced, market-economy countries across the globe, this report finds that the United States' leadership position has eroded.

Measuring Up 2006: The National Report Card on Higher Education (September 2006). *Measuring Up 2006* consists of a national report card for higher education (report #06-5) and 50 state report cards (#06-4). The purpose of *Measuring Up 2006* is to provide the public and policymakers with information to assess and improve postsecondary education in each state. For the first time, this edition offers international comparisons with states and the nation as a whole. Visit www.highereducation.org to download *Measuring Up 2006* or to make your own comparisons of state performance in higher education.

> ***Technical Guide for*** **Measuring Up 2006**: ***Documenting Methodology, Indicators, and Data Sources*** (2006, #06-6).

Checks and Balances at Work: The Restructuring of Virginia's Public Higher Education System, by Lara K. Couturier (June 2006, #06-3). This case study of Virginia's 2005 Restructured Higher Education Financial and Administrative Operations Act examines the restructured relationship between the commonwealth

and its public colleges and universities. The act gives more autonomy to the public colleges but checks it with new accountability targeted directly to the needs of the state.

American Higher Education: How Does It Measure Up for the 21st Century? by James B. Hunt Jr. and Thomas J. Tierney with a foreword by Garrey Carruthers (May 2006, #06-2). These essays by former Governor James B. Hunt Jr. and business leader Thomas J. Tierney lay out in succinct fashion the requirements of both our nation and our states for new and higher levels of performance from America's colleges and universities.

Claiming Common Ground: State Policymaking for Improving College Readiness and Success, by Patrick M. Callan, Joni E. Finney, Michael W. Kirst, Michael D. Usdan, and Andrea Venezia (March 2006, #06-1). To improve college readiness and success, states can develop policies that better connect their K–12 and postsecondary education systems. However, state action in each of the following policy areas is needed to create college-readiness reform: alignment of coursework and assessments; state finance; statewide data systems; and accountability.

Measuring Up on College-Level Learning, by Margaret A. Miller and Peter T. Ewell (October 2005, #05-8). In this report, the National Forum on College-Level Learning proposes a model for evaluating and comparing college-level learning on a state-by-state basis, including assessing educational capital. As well as releasing the results for five participating states, the authors also explore the implications of their findings in terms of performance gaps by race/ethnicity and educating future teachers.

The Governance Divide: A Report on a Four-State Study on Improving College Readiness and Success, by Andrea Venezia, Patrick M. Callan, Joni E. Finney, Michael W. Kirst, and Michael D. Usdan (September 2005, #05-3). This report, supported by case studies in Florida, Georgia, New York, and Oregon, identifies and examines policy options available to states that are interested in creating sustained K–16 reform.

> ***The Governance Divide: The Case Study for Florida***, by Andrea Venezia and Joni E. Finney (2006, #05-4).
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> ***The Governance Divide: The Case Study for Oregon***, by Andrea Venezia and Michael W. Kirst (2006, #05-7).

Borrowers Who Drop Out: A Neglected Aspect of the College Student Loan Trend, by Lawrence Gladieux and Laura Perna (May 2005, #05-2). This report examines the experiences of students who borrow to finance their educations, but do not complete

their postsecondary programs. Using the latest comprehensive data, this report compares borrowers who drop out with other groups of students, and provides recommendations on policies and programs that would better prepare, support, and guide students—especially low-income students—in completing their degrees.

Case Study of Utah Higher Education, by Kathy Reeves Bracco and Mario Martinez (April 2005, #05-1). This report examines state policies and performance in the areas of enrollment and affordability. Compared with other states, Utah has been able to maintain a system of higher education that is more affordable for students, while enrollments have almost doubled over the past 20 years.

Measuring Up 2004: The National Report Card on Higher Education (September 2004). *Measuring Up 2004* consists of a national report card for higher education (report #04-5) and 50 state report cards (#04-4). The purpose of *Measuring Up 2004* is to provide the public and policymakers with information to assess and improve postsecondary education in each state. For the first time, this edition provides information about each state's improvement over the past decade. Visit www.highereducation.org to download *Measuring Up 2004* or to make your own comparisons of state performance in higher education.

***Technical Guide Documenting Methodology, Indicators, and Data Sources for* Measuring Up 2004** (November 2004, #04-6).

Ensuring Access with Quality to California's Community Colleges, by Gerald C. Hayward, Dennis P. Jones, Aims C. McGuinness, Jr., and Allene Timar, with a postscript by Nancy Shulock (May 2004, #04-3). This report finds that enrollment growth pressures, fee increases, and recent budget cuts in the California Community Colleges are having significant detrimental effects on student access and program quality. The report also provides recommendations for creating improvements that build from the state policy context and from existing promising practices within the community colleges.

Public Attitudes on Higher Education: A Trend Analysis, 1993 to 2003, by John Immerwahr (February 2004, #04-2). This public opinion survey, prepared by Public Agenda for the National Center, reveals that public attitudes about the importance of higher education have remained stable during the recent economic downturn. The survey also finds that there are some growing public concerns about the costs of higher education, especially for those groups most affected, including parents of high school students, African-Americans, and Hispanics.

Responding to the Crisis in College Opportunity (January 2004, #04-1). This policy statement, developed by education policy experts at Lansdowne, Virginia, proposes short-term emergency measures and long-term priorities for governors and legislators to consider for funding higher education during the current lean budget years. *Responding to the Crisis* suggests that in 2004, the highest priority for state higher education budgets should be to protect college access and affordability for

students and families.

With Diploma in Hand: Hispanic High School Seniors Talk About Their Future, by John Immerwahr (June 2003, #03-2). This report by Public Agenda explores some of the primary obstacles that many Hispanic students face in seeking higher education—barriers that suggest opportunities for creative public policy to improve college attendance and completion rates among Hispanics.

Purposes, Policies, Performance: Higher Education and the Fulfillment of a State's Public Agenda (February 2003, #03-1). This essay is drawn from discussions of higher education leaders and policy officials at a roundtable convened in June 2002 at New Jersey City University on the relationship between public purposes, policies, and performance of American higher education.

Measuring Up 2002: The State-by-State Report Card for Higher Education (October 2002, #02-7). This report card, which updates the inaugural edition released in 2000, grades each state on its performance in five key areas of higher education. *Measuring Up 2002* also evaluates each state's progress in relation to its own results from 2000.

> ***Technical Guide Documenting Methodology, Indicators, and Data Sources for* Measuring Up 2002** (October 2002, #02-8).

State Policy and Community College-Baccalaureate Transfer, by Jane V. Wellman (July 2002, #02-6). This report recommends state policies to energize and improve higher education performance regarding transfers from community colleges to four-year institutions.

Fund for the Improvement of Postsecondary Education: The Early Years (June 2002, #02-5). The Fund for the Improvement of Postsecondary Education (FIPSE) attained remarkable success in funding innovative and enduring projects during its early years. This report, prepared by FIPSE's early program officers, describes how those results were achieved.

Losing Ground: A National Status Report on the Affordability of American Higher Education (May 2002, #02-3). This national status report documents the declining affordability of higher education for American families, and highlights public policies that support affordable higher education. It provides state-by-state summaries as well as national findings.

> ***The Affordability of Higher Education: A Review of Recent Survey Research***, by John Immerwahr (May 2002, #02-4). This review of recent surveys by Public Agenda confirms that Americans feel that rising college costs threaten to make higher education inaccessible for many people.

Coping with Recession: Public Policy, Economic Downturns, and Higher Education, by Patrick M. Callan (February 2002, #02-2). This report outlines the major policy considerations that states and institutions of higher education face during economic downturns.

Competition and Collaboration in California Higher Education, by Kathy Reeves Bracco and Patrick M. Callan (January 2002, #02-1). This report argues that the structure of California's state higher education system limits the system's capacity for collaboration.

Measuring Up 2000: The State-by-State Report Card for Higher Education (November 2000, #00-3). This first-of-its-kind report card grades each state on its performance in higher education. The report card also provides comprehensive profiles of each state and brief states-at-a-glance comparisons.

***Beneath the Surface: A Statistical Analysis of the Major Variables Associated with State Grades in* Measuring Up 2000**, by Alisa F. Cunningham and Jane V. Wellman (November 2001, #01-4). Using statistical analysis, this report explores the "drivers" that predict overall performance in *Measuring Up 2000*.

Supplementary Analysis for* Measuring Up 2000*: An Exploratory Report, by Mario Martinez (November 2001, #01-3). This supplement explores the relationships within and among the performance categories in *Measuring Up 2000*.

***Some Next Steps for States: A Follow-Up to* Measuring Up 2000**, by Dennis Jones and Karen Paulson (June 2001, #01-2). This report suggests a range of actions that states can take to bridge the gap between state performance identified in *Measuring Up 2000* and the formulation of effective policy to improve performance in higher education.

***A Review of Tests Performed on the Data in* Measuring Up 2000**, by Peter Ewell (June 2001, #01-1). This review describes the statistical testing performed on the data in *Measuring Up 2000* by the National Center for Higher Education Management Systems.

***Recent State Policy Initiatives in Education: A Supplement to* Measuring Up 2000**, by Aims C. McGuinness, Jr. (December 2000, #00-6). This supplement highlights education initiatives that states have adopted since 1997–1998.

***Assessing Student Learning Outcomes: A Supplement to* Measuring Up 2000**, by Peter Ewell and Paula Ries (December 2000, #00-5). This report is a national survey of state efforts to assess student learning outcomes in higher education.

***Technical Guide Documenting Methodology, Indicators, and Data Sources for* Measuring Up 2000** (November 2000, #00-4).

A State-by-State Report Card on Higher Education: Prospectus (March 2000, #00-1). This document summarizes the goals of the National Center's report card project.

Great Expectations: How the Public and Parents—White, African-American, and Hispanic—View Higher Education, by John Immerwahr with Tony Foleno (May 2000, #00-2). This report by Public Agenda finds that Americans overwhelmingly see higher education as essential for success. Survey results are also available for the following states:

Great Expectations: How Pennsylvanians View Higher Education (May 2000, #00-2b).
Great Expectations: How Floridians View Higher Education (August 2000, #00-2c).
Great Expectations: How Coloradans View Higher Education (August 2000, #00-2d).
Great Expectations: How Californians View Higher Education (August 2000, #00-2e).
Great Expectations: How New Yorkers View Higher Education (October 2000, #00-2f).
Great Expectations: How Illinois Residents View Higher Education (October 2000, #00-2h).

State Spending for Higher Education in the Next Decade: The Battle to Sustain Current Support, by Harold A. Hovey (July 1999, #99-3). This fiscal forecast of state and local spending patterns finds that the vast majority of states will face significant fiscal deficits over the next eight years, which will in turn lead to increased scrutiny of higher education in almost all states, and to curtailed spending for public higher education in many states.

South Dakota: Developing Policy-Driven Change in Higher Education, by Mario Martinez (June 1999, #99-2). This report describes the processes for change in higher education that government, business, and higher education leaders are creating and implementing in South Dakota.

Taking Responsibility: Leaders' Expectations of Higher Education, by John Immerwahr (January 1999, #99-1). This paper reports the views of those most involved with decision-making about higher education, based on focus groups and a survey conducted by Public Agenda.

The Challenges and Opportunities Facing Higher Education: An Agenda for Policy Research, by Dennis Jones, Peter Ewell, and Aims McGuinness, Jr. (December 1998, #98-8). This report argues that due to substantial changes in the landscape of postsecondary education, new state-level policy frameworks must be developed and implemented.

Higher Education Governance: Balancing Institutional and Market Influences, by Richard C. Richardson, Jr., Kathy Reeves Bracco, Patrick M. Callan, and Joni E. Finney (November 1998, #98-7). This publication describes the structural relationships that affect institutional effectiveness in higher education, and argues that state policy should strive for a balance between institutional and market forces.

Federal Tuition Tax Credits and State Higher Education Policy: A Guide for State Policy Makers, by Kristin D. Conklin (December 1998, #98-6). This report examines the implications of the federal income tax provisions for students and their families, and makes recommendations for state higher education policy.

The Challenges Facing California Higher Education: A Memorandum to the Next Governor of California, by David W. Breneman (September 1998, #98-5). This memorandum argues that California should develop a new Master Plan for Higher Education.

Tidal Wave II Revisited: A Review of Earlier Enrollment Projections for California Higher Education, by Gerald C. Hayward, David W. Breneman, and Leobardo F. Estrada (September 1998, #98-4). This review finds that earlier forecasts of a surge in higher education enrollments were accurate.

Organizing for Learning: The View from the Governor's Office, by James B. Hunt Jr., chair of the National Center for Public Policy and Higher Education, and former governor of North Carolina (June 1998, #98-3). This publication is an address to the American Association for Higher Education concerning opportunity in higher education.

The Price of Admission: The Growing Importance of Higher Education, by John Immerwahr (Spring 1998, #98-2). This report is a national survey of Americans' views on higher education, conducted and reported by Public Agenda.

Concept Paper: A National Center to Address Higher Education Policy, by Patrick M. Callan (March 1998, #98-1). This concept paper describes the purposes of the National Center for Public Policy and Higher Education.

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