CollegeProductivity

FOUR STEPS TO FINISHING FIRST

An Agenda for Increasing College Productivity to Create a Better-Educated Society

POLICY FOCUSED ON THE PUBLIC GOOD

The United States faces a period of opportunity for reinvention unlike any other, and the need for dramatic reform extends to higher education. Today, the United States is at a crossroads, facing unprecedented challenges in meeting expectations and upholding values that have long distinguished the nation. For the benefit of every American, decades-old approaches to structuring and paying for education beyond high school must be altered to ensure the nation produces enough graduates capable of contributing fully to society and to the communities in which they live. Political leaders responsible for meeting this rising demand for a skilled workforce and educated citizenry are seeking fundamental changes in higher education, which has long served as an engine of opportunity and economic mobility in the United States.

Longstanding approaches for providing college and other postsecondary education cannot be scaled affordably to meet a growing need for better-educated adults. To ensure the nation has enough people with meaningful workforce credentials and high-quality associate or bachelor's degrees, the United States must develop lower-cost, high-quality alternatives capable of delivering education to millions of students whom colleges and universities are not serving as well as they could. If we fail to respond adequately, the United States will not be prepared for the future global environment, and all of us will share in the consequences.

The good news is that smart, creative thinking about how to reinvent the academic enterprise is catching on among government and higher education leaders, prompted in part by the deep recession and slow recovery. These leaders recognize that the efficiency, effectiveness and overall productivity of U.S. higher education must significantly increase to ensure the nation is prepared to meet future challenges. This productivity agenda is championed by officials across the political spectrum, from President Obama and Maryland Gov. Martin O'Malley to Indiana Gov. Mitch Daniels and Arizona Gov. Jan Brewer. Within the academy, those leading the way include education pioneers such as William "Brit" Kirwan of the University System of Maryland, John Cavanaugh of the Pennsylvania State System of Higher Education, Rufus Glasper of the Maricopa Community Colleges in Arizona and William "Bill" Powers of the University of Texas at Austin. These leaders share a commitment to broadening participation in the economic and civic life of the nation by raising educational attainment among adults, first-generation college-going students and other students whose access to resources is limited.

The leaders of this productivity movement are coalescing around an array of policies that address facets of higher education, from state funding of colleges and universities and better uses of student financial aid to developing lower-cost, high-quality academic delivery models and instituting more efficient business practices to identify cost savings that can be allocated to serve more students. This emerging productivity agenda embraces the primary mission of higher education as benefitting American society by helping as many students as possible receive quality educations with available resources. Quality degrees and credentials, in turn, benefit individuals by creating clear and transparent paths into the workforce or to further education.

NEEDED: MORE GRADUATES

The need to better deploy scarce resources arises from increasing demand for workers with knowledge and skills typically developed in college or postsecondary certificate programs. Not long ago, the United States led the world in the share of working-age adults with college degrees. In recent decades, however, other nations have embraced the economic imperative of a better-educated workforce and have initiated efforts to ensure a larger share of their populations earns college degrees. Nearly 40 percent of working-age adults in the United States have earned an associate degree or higher; that's roughly the same degree-attainment rate the nation has reported for the past 40 years. Today, however, other nations are at 50 percent degree attainment and higher, while substantial numbers of people in China and India also hold postsecondary credentials. To meet the challenges of the 21st century, the United States will need to do a much better job of educating its people, and this will have to be done without a lot of new money.

If the United States is unable to affordably increase the share of the nation's population with college degrees and postsecondary credentials, Americans who want to earn good livings and support their families and communities will face serious consequences. Since 1975, average earnings for college graduates have increased by 19 percent, adjusted for inflation, while high school graduates have experienced an average decline in earnings of 1 percentage point. According to the Georgetown University Center on Education and the Workforce, adults with a high school diploma or less will be shut out of nearly two-thirds of all U.S. jobs by 2018, and these are the jobs that will pay the most. This represents a fundamental economic shift: During the mid-1970s, less than a third of all jobs required education beyond high school. The recession and slow recovery have made abundantly clear the importance of a college degree or meaningful workforce credential. While the nation's unemployment rate has remained stubbornly high, less than 5 percent of college graduates were without jobs at the height of unemployment during the recession.

HOW TO BOOST PRODUCTIVITY

During the latter half of the 20th century, policymakers' attention to higher education chiefly focused on increasing access to college through financial aid and the creation of community colleges. The nation as a whole benefited from the ensuing economic activity and social change as the GI Bill for returning World War II veterans created widespread opportunities for millions of new students to attend college.

Access to college remains a critical concern, particularly for students with the least access to educational resources. But even as record numbers of students enter colleges and universities, too many of them are leaving without the degrees and credentials they had sought. Many find a series of obstacles on the path to graduation—institutions with financial incentives to enroll them but not to see that they complete courses of study; weak advising and academic supports; institutional spending on costly items with little discernable connection to education that help drive up the price of college; and academic models that fail to conveniently serve them, fail to account for what they already know or fail to deliver lower-cost and accelerated programming.

Several years ago, Lumina Foundation directed its mission toward a single, overarching "Big Goal:" to work together with its partners across the country to increase the percentage of working-age Americans with high-quality degrees and credentials to 60 percent by 2025. Lumina and its partners identified key policies and practices that research or recent experiences indicate can increase higher education productivity so that available resources can be used to graduate many more students. These strategies, embodied in The Four Steps to Finishing First: An Agenda to Increasing College Productivity to Create a Better-Educated Society, highlight examples of productivity enhancements that assume an environment in which demand for education increases even as significant new investments in higher education are unrealistic. The Four Steps agenda also is compatible with increasing higher education quality and includes:

1. **PERFORMANCE FUNDING: Targeted Incentives for Colleges and Universities to Graduate More Students with Quality Degrees and Credentials.** Traditionally, states build higher education budgets based on assorted inputs—often prior years' funding levels, plus current-year enrollment growth.[1] Instead, policymakers should provide financial incentives to schools that help students clear certain milestones on their academic journeys or finish work toward their degrees or credentials. Limited evidence from Florida and Pennsylvania, where this type of funding has been in place for a decade or more, shows degree completion increasing.[2]

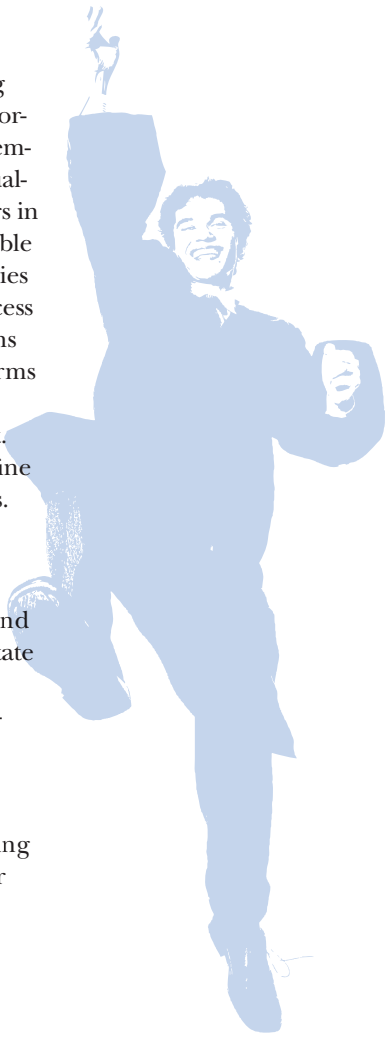
2. **STUDENT INCENTIVES: Strategic Use of Tuition and Financial Aid to Incentivize Course and Program Completion.** States should use tuition discounts and need- and merit-based financial aid policies to give students more reasons to complete efficiently and should allocate limited public aid dollars to achieve the greatest effectiveness. For example, Texas students receive $1,000 if they complete bachelor's degrees within three credits of minimum degree requirements. Other states limit aid to 120 credits for bachelor's degrees, providing a completion incentive while making dollars available to serve more students.

3. **NEW MODELS: Lower-Cost, High-Quality Approaches Substituted for Traditional Academic Delivery Whenever Possible to Increase Capacity for Serving Students.** To increase their capacity to graduate students, many colleges and universities are instituting high-quality online, blended and other non-traditional forms of instruction, as well as new approaches for recognizing students' prior acquisition of knowledge and skills . The current costly system of higher education cannot be scaled to meet the increasing demands of individuals, society or the U.S. economy.

4. **BUSINESS EFFICIENCIES: Business Practices that Produce Savings to Graduate More Students.** Surveys show faculty members are willing to tackle productivity in the classroom when they've seen strong evidence that colleges and universities have squeezed efficiencies out of non-academic operations. Improved efficiency through joint purchasing and back-office consolidation are two such approaches. By meeting annual cost-savings targets, the University System of Maryland improved its relationship with state policymakers and received funding for its public institutions that allowed it to freeze in-state undergraduate tuition for several years. Ohio and other states have shielded their university systems from deep state funding cuts by finding business-side efficiencies and otherwise demonstrating good stewardship of public funds.[3]

A COMMITMENT TO **QUALITY**

From our perspective, productivity gains are achieved when quality has been maintained or improved as money spent on each graduate decreases, all without sacrificing important principles such as access and equity. Increasingly, Lumina is working with higher education partners to redefine quality in terms of measurable learning outcomes. From the student's perspective, quality should not be measured primarily in terms of subjective rankings or higher spending per degree. Rather, the degrees and credentials students earn should provide clear paths into further study or to middle-class employment. Degrees and credentials should signify the attainment of knowledge and skills that equip graduates to navigate the complexities of a rapidly changing world. Lumina and its national partners are exploring two approaches to assure that an increasing emphasis on productivity gains does not diminish quality. Tuning, for example, engages faculty members in determining what students should learn and be able to apply generally and specifically from their studies of specific academic disciplines. The Tuning process can be coupled with use of a Degree Qualifications Profile (Degree Profile) to measures quality in terms of acquired skills and competences that associate, bachelor's and master's degrees should represent. Insights gained will enable states to select and refine the best productivity strategies to meet their goals.



NETWORKING AND SHARED LEARNING

More than 30 states are pursuing elements of the Four Steps productivity agenda to build a 21st century higher education system that serves 21st century students, including adults, students who are the first in their families to attend college and others with less access to educational resources. Lumina has awarded productivity grants to seven states—Arizona, Indiana, Ohio, Maryland, Montana, Tennessee and Texas—intended to produce sustainable examples of productivity enhancements that can be scaled or transferred to other state settings. These seven states and others also are receiving assistance from Lumina's Productivity Strategy Labs, which offer technical assistance, nonpartisan research and analyses, and peer networking opportunities to state policymakers and higher education leaders. The Strategy Labs are staffed by former higher education or government officials. Among sponsored activities are meetings and workshops in which legislators, policymakers and higher education leaders share knowledge and advice about adopting and implementing elements of the Four Steps for improving higher education productivity.

For more information on Strategy Labs, go to: http://collegeproductivity.org/strategy-labs.

STEP 1: PERFORMANCE FUNDING

Targeted Incentives for Colleges and Universities to Graduate More Students with Quality Degrees and Credentials.

Most states draft higher education budgets without a clear statement of the public return they want for their investment. As a result, states typically fund colleges and universities based mostly on student enrollments. Not surprisingly, colleges and universities respond by enrolling ever higher numbers of students without regard for whether they can graduate. As a result, fewer than 60 percent of first-time, full-time students earn bachelor's degrees within six years; a much lower percentage of community students earn associate degrees within three years.

From the most traditional funding mechanisms to least, states finance their higher education systems through 1) incremental changes to base appropriations, 2) credit hours attempted related to enrollment relative to cost factors, 3) benchmarking of peer institutions, 4) performance funding tied to metrics and 5) vouchers.[4] However, policymakers increasingly are looking at institutional funding that ties state money to course and degree completion because public higher education is a major economic contributor that should be aligned with public priorities. Growing public concern about the price of college, a lack of accountability and educational quality also are behind the renewed focus on performance funding. With a "New Normal" in public higher education finance, in which demand for high-quality education with the same or fewer resources is increasing, policymakers need to think differently about public higher education spending. Policymakers and the public increasingly believe colleges and universities can—and should—be more efficient, effective and productive. Institutions that commit to measurably improving performance tend to do better in public funding discussions.

Of the nearly 30 states that have adopted performance funding, more than a dozen have dropped it. Factors contributing to failures included a lack of buy in from college and university leaders, departure of key legislative supporters, overly complex formulas, state budget challenges or funding that was seen as an optional "add-on" to state support. To build support, states should provide technical assistance to help struggling institutions do better, incentives for institutions to serve students who require extra help academically, and rewards for improvements in closing specific academic gaps highlighted by disaggregated achievement data.

Stable, successful performance funding models begin with broad state goals. These models keep it simple and fair. They involve, engage and consult higher education leaders. They are designed to protect colleges and universities from volatile, unpredictable funding shifts. They take differences in the students that institutions serve into account. They rely on timely, relevant data, and they put a significant share of funding at stake in the base.[5]

More recent experience has shown that performance metrics can be used to allocate state budget cuts across institutions more fairly; that extra weight can be assigned to at-risk students to encourage graduation; and that open-access institutions can be incentivized to help students reach "momentum points" that propel them toward graduation.

For instance, institutions could be asked to choose from an array of seven to ten metrics disaggregated by race/ethnicity, income, gender, age and language. These metrics could cover inputs such as total enrollment, the proportion of adults enrolled, etc. (note that a disproportionate focus on graduation rates could promote the unintended consequence of increased selectivity in student admissions); process or intermediate measures such as transfers among sending/receiving institutions; productivity metrics such as those recently released by the National Governors Association; and outcome metrics such as year-to-year increases in numbers of graduates, increases in students graduating on time and additional formula weighting for students who are harder to serve. In some cases, for example, performance funding recognizes the achievements of needy students eligible for Pell Grants and the award of degrees and credentials in high-demand science, technology, education and mathematics (STEM) fields.[6]

There is much colleges and universities can do to increase the likelihood students will finish their studies, including providing more structure and direction and less choice for students; focusing on what students need to know and be able to do to earn degrees and credentials ; offering a thorough student orientation, coupled with learning plans; increasing opportunities for student engagement with faculty members and other students; promoting more proactive academic advising and use of analytics that provide early warnings that permit customized intervention; and adding student support.[7] Performance funding can serve as a catalyst for scaling efforts to promote greater student success. Concerns such as a heightened risk of grade inflation and incentives to admit only better students can be addressed through state-level monitoring.

STATE SUCCESS **IN ACTION**

Below are examples of state efforts that illustrate how performance funding can leverage change. Where performance funding has remained in place over time, policymakers have worked in partnership with colleges and universities to customize a funding model and have jointly monitored the formula's effectiveness.

Florida initiated performance funding for community colleges in the 1990s. Under its Performance Based Budgeting program, the state awards a sliver of its higher education budget to colleges based on three performance measures: number of students who complete certificate programs and associate degrees; number of graduates for whom English is a second language, disabled or economically disadvantaged or who are placed in jobs in targeted fields after graduation; and the number of associate degree students who graduate with fewer than 72 total attempted credit hours.

Another Florida initiative, the Workforce Development Education Fund (WDEF), created incentives for completion and job placement. Established in 1997 by the state legislature, WDEF allocated community colleges and district-operated technical centers 85 percent of their prior-year appropriation up front. The remaining 15 percent was distributed based on completion and student placements in high-wage, high-demand fields. The formula also rewarded institutions when economically disadvantaged students completed courses or programs. Although discontinued in 2002 when institutional and political support waned, the program had a significant effect from 1996 to 2007; community college completion rates increased by 43 percent during this period. This program demonstrated that linking significant funds to performance can influence college actions that improve student outcomes.

In 2009, **Ohio** introduced major new funding formulas for its colleges and universities. For main university campuses (excluding certain doctoral and medical programs), Ohio based funding on course and degree completion, with 95 percent of FY 2010 funding allocated for course completion and 5 percent allocated for degree completion, both weighted by total cost of the course or degree program. Over time, additional funding will depend on institutions' ability to graduate higher numbers of students. At regional four-year campuses, where funding historically had been tied to enrollment, the state created a new funding formula based on course completion, weighted by cost of the course; Ohio plans to phase in additional funding incentives for degree completion at these campuses. Adjustments are also made to provide increased funding for at-risk students, defined as those eligible for Ohio's need-based aid program.

At Ohio's community colleges, student enrollment will remain the foundation for state funding. However, the state is introducing incentives based on what policymakers describe as "momentum points"—that is, student success measures that take into account the community colleges' open-access missions and the backgrounds of students who enroll. Community colleges earn points when their students reach milestones, such as completing remedial coursework and becoming eligible for credit-bearing courses. These momentum points will determine 5 percent of community colleges' allocations, with the percentage increasing over time.

The three new formulas will be phased in. A "stop-loss" provision maintains the majority of an institution's funding as the higher education system adjusts to performance-based models. Stop-loss levels were 99 percent in FY 2010, and 98 percent in 2011.

In 2002, the **Pennsylvania** System of Higher Education (PASSHE) began allocating a portion of the state appropriation for institutions based on performance. In January 2011, PASSHE revised the formula to align it with new strategic objectives. The formula was developed to ensure 1) the funding criteria were transparent; 2) the focus was on outcomes; and 3) the data would be accessible. PASSHE uses performance criteria to allocate about 8 percent of the total state appropriation for institutions.

Pennsylvania officials say their institutions have realized significant gains because of performance funding from 2002 through 2008, the most recent period for which figures are available, while increasing enrollment by nearly 20 percent. The state's accomplishments include a nearly 10-percentage-point increase in four-year graduation rates (including increases of 6 and 9 percentage points for black and Latino students, respectively) and a jump in second-year persistence rates (especially for Latino students, who were 15 percentage points more likely to continue with their studies.).

Since 2007, **Indiana** has adopted and refined legislation that links financial incentives for all public higher education institutions to a set of performance indicators. The 2007 legislation left the base funding for colleges and universities tied to credit hours enrolled. Performance incentives were provided that encouraged colleges and universities to help increase the number of students who finish their degrees, graduate on time and pursue transfer from community colleges to bachelor's programs.

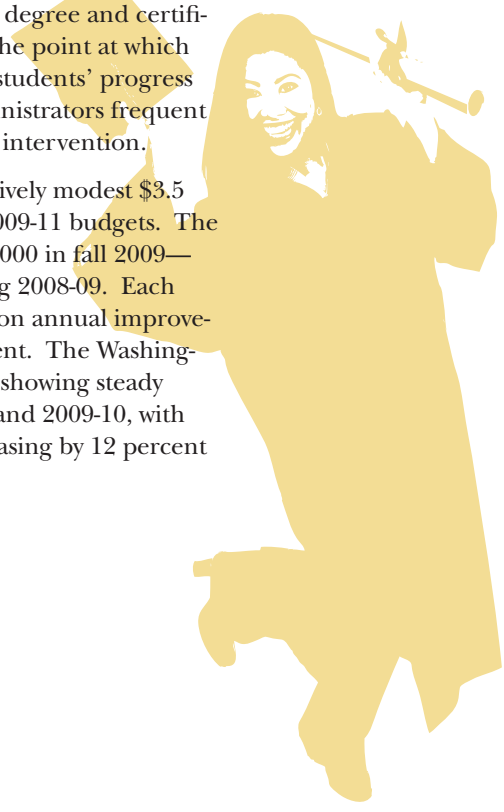
In 2009, working with the Indiana Commission for Higher Education, the legislature began to tie base funding to performance. Over time, an increasing portion of the enrollment component of the state's funding formula will be based on credit hours completed—and not just credits attempted. By 2010, 90 percent of enrollment funding was based on credit hours attempted; the remaining 10 percent was based on hours completed. This ratio is expected to continue to shift over time; by 2014, enrollment funds are expected to be based entirely on completed credit hours. In addition, Indiana's institutions are funded based on five other performance priorities: 1) increases in the number of degrees awarded; 2) increases in students graduating on time; 3) levels of degree completion by students from low-income families; 4) increases in students transferring from community colleges to bachelor's degree programs; and 5) the amount of non-credit workforce training provided by Ivy Tech Community College and Vincennes University.

The **Washington** State Board for Community and Technical Colleges sponsors the Student Achievement Initiative. Under this program, the state defines four levels of student success, rewarding colleges for:

1. Students building toward college-level skills as evidenced by basic skills gains and pass scores in pre-collegiate writing or math;
2. First-year retention (15 college-level credits per quarter, then 30);
3. Students completing college-level math; and
4. Students who complete degrees, certificates or apprenticeship training.

These measures focus institutions on helping students achieve intermediate outcomes that provide meaningful momentum toward degree and certificate completion, regardless of the point at which students begin. Colleges track students' progress each quarter, which offers administrators frequent feedback and opportunities for intervention.

The legislature approved a relatively modest $3.5 million for the program in its 2009-11 budgets. The initial payments—totaling $500,000 in fall 2009—were tied to performance during 2008-09. Each college received funding based on annual improvement in total student achievement. The Washington board has published results showing steady improvement between 2006-07 and 2009-10, with total student achievement increasing by 12 percent from 2008-09 to 2009-10 alone.



STEP 1: LESSONS LEARNED

- **Keep it simple.**
  During the past 20 years, 26 states experimented with performance funding. Researchers contend that many programs failed because there were too many performance measures and too much money was at stake. This made funding outcomes unpredictable and complicated; it also diluted the emphasis on generating more graduates. States exploring this policy option should focus squarely on student momentum points and course and program completion while limiting performance indicators to those that best measure progress toward these objectives.

- **Establish clear state- and campus-level goals for completion of degrees and credentials that contribute toward state attainment goals.**
  State goals for college attainment help establish clear expectations for policymakers, higher education leaders, faculty members and the public. These goals often are linked to the state's economic needs. With clear goals, states can align higher education policies with expectations. An example: In Ohio, the governor and legislature called for enrolling 230,000 more students and increasing graduation rates by 20 percent by 2017—all of which would result in 100,000 more degrees per year. This ambitious goal reflected that prior targets were either too low or too vague to influence the actions of colleges and universities.

- **Focus on year-to-year increases in the overall numbers of completers, not just on graduation rates that can conceal movements toward increased selectivity in admissions.**
  To avoid a focus on graduation rates that could lead to increased selectivity or sudden funding shifts each year, funding should be tied to year-to-year increases in completion at each institution, in addition to typical comparisons of performance across peer institutions. Rolling averages also may be used.

- **Engage college and university leaders in the development of a performance funding system.**
  The success and longevity of performance funding ultimately will depend on building institutional support. Policymakers should begin working with college and university leaders and key faculty members early in the development of a funding model. Their input is especially useful for establishing appropriate performance indicators and measures that recognize the differing missions of institutions and rely on timely, relevant and accurate data. Institutional leaders, including provosts and faculty members, can become guardians of quality rooted in student learning.

- **Provide colleges and universities with room to maneuver and recognize institutions that get good results.**
  Research shows that support for performance funding will increase if colleges and universities can decide for themselves how to reach performance goals. They also should be lauded for successful outcomes and offered technical assistance if they fail to meet completion goals.

- **Take institutional differences into account.**
  The structure of performance funding should vary according to the missions and student characteristics of the institutions. Washington state's funding formula, for example, rewards progress before students earn their degrees or credentials. States also could allow institutions to choose differing weights for various metrics that reflect their unique roles and the students they serve.

- **Provide incentives for colleges and universities to enroll and graduate more 21st century students.**
  Such incentives are critical because Black, Latino and Asian students, along with those from low-income families, make up a growing share of state workforces. Demographers project that by 2050 the United States will be a "majority-minority" nation in which whites are no longer the dominant racial group. In addition, states should ensure financial incentives are in place for institutions to enroll and graduate working-age adults, many of whom will require some form of education beyond high school.

- **Continue to innovate public financing of higher education even in the face of unexpected results or reduced revenues.**
  Some previous attempts at performance funding ended when institutions argued that the additional or new money wasn't sufficient to support the effort being required. More successful systems have considered financial incentives for completion a part of the base budget. Governors and legislators should establish at the outset that performance funding is not primarily a means of allocating new funding as it becomes available; rather, performance funding must be defined as a mechanism for aligning public spending with clear state priorities. In Indiana, performance metrics have been used to allocate spending reductions in tight budget times. Taxpayers have a right to expect that all monetary investments in higher education—and not just newly available resources— are spent to educate the workforce each state needs.

ENABLING LEGISLATION, REGULATIONS OR RESOLUTIONS

Florida

The Government Performance and Accountability Act of 1994 (Ch. 94-249, Laws of Florida) established performance-based program budgeting in Florida (legislation archived)

Indiana

FY2009-11 budget legislation: www.in.gov/legislative/bills/1092/HE/HE1001.1.html. See also: www.in.gov/che/files/Disc_A_-_Report_on_09-11_budget_-_FINAL_VER.pdf.

Ohio

FY 2012-13 budget legislation: Am. Sub. H.B. 153 of the 129th General Assembly http://www.legislature.state.oh.us/BillText129/129_HB_153_EN_N.html

Washington

Student Achievement Initiative resolution: www.sbctc.ctc.edu/college/education/proposal_to_board_sept07.pdf.


THE UNITED STATES OF AMERICA
ONE DOLLAR

STEP 2: STUDENT INCENTIVES

Strategic Use of Tuition and Financial Aid to Incentivize Course and Program Completion.

Students respond to financial incentives. Tuition discounts, reduced fees and generous aid policies can persuade them to choose certain institutions over others. Dynamic pricing policies also can encourage students to complete their degrees on time. Students receiving need-based financial aid could be better motivated to complete courses and degrees if completion incentives were built into their awards packages. States and the federal government should make better use of financial resources flowing to students to promote completion of quality degrees and credentials to meet attainment goals. This can occur by rewarding desired student achievement or creating financial disincentives for pursuing actions that unnecessarily increase the costs to the public of subsidizing colleges and universities.

State financial aid policies should be simple and predictable. These policies should give high school students well-publicized incentives to complete rigorous college-level courses while in high school. In college, students receiving aid dollars should receive financial incentives for completing full course loads, for completing courses and for completing degree programs or training for credentials. When financial aid money is limited, public funds should initially be spent on lower-income students who are less likely to finish coursework without the assistance. The lion's share of state aid should not flow to talented students whose parents can afford to pay. Research shows that financial incentives make the greatest difference for average students who are capable of graduating but also are at risk of dropping out for financial reasons.

As demand for education beyond high school grows, physical constraints increasingly are limiting the capacity of colleges and universities to serve students. One approach some institutions are experimenting with is off-peak pricing, which can be used to reduce average costs by making better use of available building space. Such pricing can promote course-taking on nights or weekends. In addition, some states require students to pay higher tuition after they have accumulated more than 140 credit hours towards bachelor's degrees that require only 120 to 132 credits; this limits tax funds used to subsidize what some policymakers view as "excess-credit" accumulation. Policies also limit the number of courses students can enroll in but fail to complete and encourage students to complete their degrees on time.

STATE SUCCESS **IN ACTION**

Louisiana's Opening Doors was introduced by MDRC, an advocacy and research nonprofit, to incentivize course completion among more-challenging-to-serve students. The program operated at two New Orleans-area community colleges—Delgado Community College and Louisiana Technical College, West Jefferson—from 2004 until 2005, when Hurricane Katrina struck and the experiment was cut short and remaining funds were disbursed to students. The program offered $2,000 scholarships to students, especially those from low-income families, if they enrolled at least half-time and maintained a "C" average or better. Students received payments three times a semester, which represented milestones for counselors to review their performances. The state paid for these scholarships using surplus funds available through federal Temporary Assistance for Needy Families (TANF).

An evaluation of the Louisiana scholarship initiative found it held promise. Scholarship students were more likely to register than similarly situated students without the incentive aid—and they were more likely to register full time. In addition, they were more likely to stay in school at least four semesters. The scholarship also resulted in greater credit accumulation and higher grades for these students, who reported higher levels of involvement and interest in their education and higher levels of perceived support for their academic pursuits from their colleges and universities.

The Bill & Melinda Gates Foundation and other funders are supporting an MDRC evaluation of similar scholarship programs in California, New Mexico, New York City and Ohio.

Oklahoma supports a unique state financial aid program aimed at promoting awareness among high school students of the need to enroll in higher education and complete work on degrees or credentials. Oklahoma's Promise offers eighth-, ninth- and 10th-grade students with family incomes of $50,000 or less scholarship aid to attend in-state community colleges and bachelor-degree granting institutions. Eligible students must have minimum grade-point averages of 2.5 in certain college preparatory courses—a criterion consistent with research that indicates rigorous high school coursework and full-time college enrollment improve the likelihood of degree completion. These scholarships expire for each student after five years, giving them incentive to enroll and attend college full time.

Oklahoma's Promise recipients earn higher college GPAs and demonstrate higher-than-average college enrollment and persistence rates. In 2006, 82 percent of Oklahoma Promise-eligible high school students enrolled in college, compared to 57 percent of all Oklahoma high school graduates. Eighty-nine percent of scholarship students had GPAs of 2.0 or higher as freshmen (compared to 70 percent of all freshmen), while 86 percent stayed in college through their sophomore years (compared to 76 percent of all freshmen). In 2007, the Oklahoma legislature provided more permanent funding from the state's General Revenue Fund.

Texas has enacted and tested a number of promising financial incentives for students to complete courses and programs in a cost-effective manner. The College for All Texans $1,000 Tuition Rebate encourages students to graduate with very few "excess" credits. The rebate is available to students at public four-year colleges in Texas who take no more than three credit hours beyond the minimum number required to earn their degrees. The rebate also provides an incentive to students to complete college-level courses in high school or elsewhere before they enroll in a college or university.

Additionally, Texas requires state colleges and universities to charge out-of-state tuition to in-state undergraduates who have accumulated excessive credit hours by the start of a new semester (30 or more credit hours beyond degree requirements is considered excessive). Once a student reaches this limit, the institution also loses state subsidies for additional credit-bearing courses these students enroll in.

Florida saved $15 million and reduced dropped courses by half after requiring recipients of its Bright Futures merit scholarship to refund money if they withdrew from courses after the drop/add deadline. In an effort to trim the budget of the financially strained scholarship program, the state legislature zeroed in on data revealing students were failing to complete 7 percent of courses they had enrolled in. Cutting taxpayer support of such withdrawals was a strategic choice that prevented deeper cuts in the program. Within the first year after this change, students withdrew from courses after the deadline at half of the former rate and those who withdrew repaid the state $14.7 million.

STEP 2: LESSONS LEARNED

- **Create student-centered aid policies that target dollars efficiently.**
  Awards that are too small or linked to a particular type of institution limit students' options. State aid policies should allow students to transfer between institutions without affecting their eligibility for aid. States are better positioned than colleges and universities to use financial aid to ensure completion for the largest number of low-income students. When financial aid is distributed by institutions, it's often spent to bid for the "best" students academically rather than to attract students whose financial need is greatest; however, research has shown incentives for students with fewer available resources benefits them more than other students by increasing college access and degree completion.

- **Retain state authority to establish tuition levels or provide tight parameters for institutions that set tuition.**
  States that deregulate tuition pricing forfeit strategic opportunities to influence student behavior.

- **Fund student success, not just enrollment, with aid programs, including aid to needy students.**
  Financial aid should explicitly promote student completion. Need-based aid programs that encourage students' academic preparation and push them to reach early milestones—such as earning the first 15 or 30 credits toward a degree—help remove known barriers to completing degrees.

- **Eliminate tuition or financial aid policies that discourage students from receiving academic credit through innovative, cost-effective academic delivery models.**
  Pricing policies should promote participation in online, blended and other non-traditional academic delivery models that can accelerate learning or facilitate cost-effective education. In many states, online courses and programs offered at public institutions are priced higher than traditional instruction even though the marginal cost of providing such instruction can be significantly lower. Financial aid policies should treat similar learning opportunities similarly. In addition, student fees for awarding credit for prior learning demonstrated through testing, portfolios and other means should be discounted to the extent possible.

- **Target the largest financial incentives to those students least able to pay.**
  Louisiana's Opening Doors program targeted scholarships to lower-income single parents who typically must give up significant income to enroll in and complete college courses. Spread more widely among all students, the scholarships would likely have less impact and be more expensive to administer.

- **Ask for evidence.**
  Colleges should widely share evidence of cost savings as well as patterns in enrollment and completion. Financial aid administrators and institutional researchers should cooperate closely and share data to enable honest evaluations of tuition and aid programs. Policymakers should use this information when writing budgets.

ENABLING LEGISLATION, REGULATION OR RESOLUTION:

- **Oklahoma**
  Oklahoma Higher Learning Access Program (OHLAP) legislation—original: http://sde.state.ok.us/Law/LawBook/law/Chapter7/C_7-A_III.htm

  Funding (SB 820): http://webserver1.lsb.state.ok.us/2007-08bills/SB/sb820_enr.rtf

- **Texas**
  SB 532 (2005): http://www.legis.state.tx.us/tlodocs/79R/billtext/html/SB00532F.htm

  College for All Texas Tuition Rebate (Education Code, Chapter 54.0065): http://www.statutes.legis.state.tx.us/SOTWDocs/ED/htm/ED.54.htm

- **Florida**
  Bright Futures Program Legislative History: http://www.floridastudentfinancialaid.org/SSFAD/bf/newsrenew.htm

  Senate Bill 1696 Legislative Staff Analysis http://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?FileName=2009s1696.hi.docx&DocumentType=Analysis&BillNumber=1696&Session=2009

STEP 3: NEW MODELS

Lower-Cost, High-Quality Approaches Substituted for Traditional Academic Delivery Whenever Possible to Increase Capacity for Serving Students.

The Big Goal of ensuring that 60 percent of working-age Americans have earned high-quality degrees or credentials by 2025 has been widely embraced. To reach this goal, the nation must graduate 23 million more citizens than its current pace.[8] The existing higher education system cannot be scaled to meet this level of demand. At current rates of spending in higher education, the United States would need an additional $33 billion beyond what the nation is projected to spend.[9] Neither taxpayers nor students or their families can bear such expense.

Responding to this challenge by adding more bricks and mortar is unrealistic. Nor does it serve the millions of 21st century students who juggle work, families and education in traditional models. To increase higher education's capacity to meet national needs, policymakers and higher education leaders must embrace lower-cost, high-quality academic delivery models. Colleges and universities must implement cost-effective practices that support accelerated completion by creating clearly defined pathways toward degrees and credentials that limit course options; by allowing students to complete segments of failed courses; and by simplifying credit transfers.[10] Institutions also should offer students multiple opportunities to earn credits for demonstrating their prior acquisition of knowledge and skills. Such steps could conserve public money and even win faculty approval by limiting student debt.[11]

STATE SUCCESS IN ACTION: COMPLETION EFFICIENCY

Governors from more than 25 states share a commitment to increasing completion efficiency as members of Complete College America's Alliance of States.[12] They are working to improve graduation rates, reduce excess credits and redesign instruction—steps that will generate significant savings that can be used to enroll more students.

For example, initiatives to improve graduation rates by building structured pathways to a credential that limit course options can bring down the average cost of a degree by 11 percent; providing the right kinds of student supports can cut the cost of a degree by a third.[13] A 10 percent reduction in excess credit accumulation would provide savings equivalent to nearly 25 percent of the additional $33 billion investment needed to meet the Big Goal by 2025.[14] Redesigning academic delivery models could improve average degree productivity by between 17 and 26 percent.[15]

Florida's longstanding guaranteed statewide transfer agreement promises that students who complete 60 credits as part of an associate degree will be admitted to Florida's public four-year universities as juniors. The agreement has increased the number of transfer students admitted to Florida's universities, and participating students end up graduating with the same number of credits as they would have if they had started at these bachelor-degree granting institutions as freshmen.[16] After drawing lessons from Florida's experience, Louisiana created a similar guaranteed-transfer degree, implementing the program and communications plan within a single year.[17]

California has reduced growth of excess academic credits by requiring that no bachelor's degree program can exceed 120 semester hours without making an evidence-based case for doing so. Thanks in part to campus monitoring systems, three-fourths of California State University programs now require no more than 120 credits; to achieve this result, nearly 85 percent decreased their total credit requirements.[18]

Arizona has more than a thousand lower-cost bachelor's degree pathways that involve students beginning their studies at community colleges and completing them at universities. Students in these programs can pay up to 50 percent less in tuition than if they spent the entire four years at main university campuses. In addition, Arizona's universities offer lower-tuition options at extended campus sites and through accelerated and online degree programs. These lower-cost options enroll more than 11,000 students across Arizona.[19]

Maryland has launched a statewide redesign of freshman- and sophomore-level courses in which students have high failure rates. Under a plan the state university system adopted based on the National Center for Academic Transformation course-redesign model, every public college and university is redesigning at least one course. The results have been promising. After redesigning an introductory psychology course, Frostburg State University reduced its cost-per-student by 71 percent even as pass rates increased.[20] Towson University redesigned a non-credit-bearing math course for students in need of remedial work and increased the pass rate by 17 percentage points, from 33 percent to 50 percent.[21] Student transcript reviews can be used in such efforts to target courses likely to generate the greatest savings and gains in student learning. Like Maryland, states should focus on redesigning "bottleneck courses" that trip up many students. States also should require colleges and universities to show how they are using savings from course redesigns to serve more students.

Carnegie Mellon University's Open Learning Initiative (OLI) creates low-cost, web-based courses taught by leading faculty members and accessible to any student or institution in the world. OLI's library of online courses includes some of the common courses freshmen must take. In addition to reducing the cost of providing instruction, open-learning courses can enhance learning and significantly reduce the time required to master content by providing the right level of instruction at the right time. Studies show students accessing open courses can learn the same material as in a traditional semester-long course in half the time.[22] Creative course redesign efforts make more effective use of available space, technology and faculty time and create mechanisms for sharing promising practices across institutions. Faculty members are drawn 1) to the idea that transforming how the curriculum is delivered could free them up to focus on upper-division courses; 2) to the prospect that these technology-enabled courses could be delivered in more exciting and effective ways; and 3) to the opportunity to learn about new techniques for engaging students' learning that also could improve outcomes in the lower-division courses that help interest students in their disciplines. Redesigned courses can provide individualized support targeted to students' specific needs, including the use of open-source educational resources. They also provide professional development and specialized online course resources for instructors, and make use of the best available research into how students learn complex material.[23]

STATE SUCCESS IN ACTION:
LOWER-COST, HIGH-QUALITY MODELS

Below are public, nonprofit and for-profit programs that represent lower-cost, high-quality models for delivering education. States should aggressively explore these alternative approaches for increasing their capacity to graduate more students at a much reduced cost to students and taxpayers alike.

National nonprofit **Western Governors University** is a competency-based online university serving more than 20,000 students. WGU's relatively low costs—about $6,000 per year for most degrees—have increased slowly compared with traditional institutions. The institution's cost per degree has dropped since 2002. The average time to a bachelor's degree is only 30 months. Indiana and Washington State have added state-branded WGU programs through an executive order and enabling legislation, respectively. WGU Indiana is on track to serve 3,000 additional students within three years in its business, education, IT and nursing programs.

To help adult students earn their degrees more rapidly, the **University of Maryland University College (UMUC)** systematically assesses competencies and knowledge obtained through life and work and awards academic credit for this "prior learning." The university is the largest postsecondary provider for the U.S. armed services, including returning veterans. Policymakers should strongly encourage institutions to widely advertise the availability of such assessments and to award low-cost academic credit for demonstrated proficiency in critical areas of learning. At UMUC, faculty advisors assess prior learning, with credit often awarded for even upper-division courses. The college also uses prior-learning assessment as a recruiting tool, advertising it on the web and through broadcast and cable commercials aimed at working-age adults.

Rio Salado College, originally developed as a campus of Maricopa Community College in Arizona is now one of the nation's fastest growing public colleges, offers more than 500 online courses, with most starting every two weeks. Its shorter course schedules mean students can accelerate their learning. Rio Salado uses analytics to determine with 70 percent certainty within the first eight days of instruction whether students are at risk of failing without interventions.

The **Southern Regional Education Board's Electronic Campus** is a central marketplace for some 28,000 courses and more than 800 degree programs offered online by colleges and universities in the South. Under a reciprocity agreement among participating states, the Electronic Campus offers courses and programs that have won approval from regulators within their home states. This approval is based on a set of commonly developed "principles of good practice" consistent across the states and functioning as a regional certification of course or program quality.

In 1987 the Western Interstate Commission for Higher Education created the **Western Undergraduate Exchange (WUE)**, a program which offers enrollment in many community colleges and colleges and universities in 15 states at tuition levels roughly midway between the institutions' in-state and out-of-state tuition rates. The WUE network is the largest program of its kind in the country, with more than 143 two- and four-year public institutions serving 28,000 students.

The Midwestern Higher Education Compact's Student Exchange Program offers reduced interstate tuition at public and private institutions. The Southern Regional Education Board's Academic Common Market offers discounted tuition regionally at public and private nonprofit institutions. The fourth regional compact, the New England Board of Higher Education, also features a New England Regional Student Tuition Break Program for students within its states attending public institutions in other participating states.

STEP 3: LESSONS LEARNED

- **Conduct policy audits to determine which regulations and other policy barriers impede the growth of lower-cost, high-quality models.** State policies sometimes create barriers that hinder the growth of innovative models. Policymakers should make expanding low-cost, high-quality technology-enabled models while protecting consumers a top priority. Common policy barriers include: laws or regulations that prohibit online institutions; costly, confusing regulatory oversight and unclear consumer protection provisions; prohibitions against using state student financial aid at high-quality online institutions, including nonprofit providers; and professional licensing boards' lack of familiarity with online degree programs.

- **Create a guaranteed-transfer lower-division core or degree.** Developing a statewide lower-division core or associate transfer degree guarantees students completing up to 60 credits at lower-cost institutions will not have their time or money wasted. A guarantee core assures students they will be admitted to a four-year institution as an upper-division student with all credits counting toward earning a bachelor's degree. Making this commitment a reality for students can lead to unprecedented cooperation among faculties and institutions to eliminate barriers that prevent students from successfully transferring between postsecondary institutions.

- **Identify and eliminate degree-program credit creep.** Establishing a system or statewide standard for the maximum number of credit hours needed to obtain a particular degree can lead to lowered costs to both students and institutions. In addition, periodic academic program reviews can lead to the identification and elimination of programs that are not strategically connected to state needs and priorities, produce low numbers of graduates, or are duplicative.

- **When redesigning the high-volume, lower-division courses, set deadlines and target a limited number of courses** By restricting course redesign efforts to a limited number of large-enrollment, introductory courses a college or university can still impact nearly every student who attends. Improved retention, enhanced quality and expanded access are typical results of such efforts. As some course redesign efforts have taken years to complete, it is advisable to set deadlines and provide adequate resources to faculty to assure timely implementation.

- **Award academic credit for prior learning that can be documented through testing, portfolios, demonstration or other methods.** Maximizing the number of ways a student can earn academic credit utilizing Prior Learning Assessment (PLA) increases the likelihood a student will be able to progress more rapidly toward a postsecondary degree or credential. In addition to saving the student both time and expense, promoting widespread PLA credit opens pathways for lower-cost models, including postsecondary education delivered in the workplace.

- **Form innovative partnerships across state lines to create flexible, student-centered programs.** It is increasingly common for students to attend multiple institutions prior to earning a degree or credential. This pattern of student "swirl" or "double-dipping" (concurrent enrollment at multiple institutions), coupled with increased mobility and the rise of online accessible courses, provides added incentive for developing collaborative initiatives that bypass traditional geographic barriers and deliver quality education at a lower cost.

ENABLING LEGISLATION, REGULATION OR RESOLUTION:

- **Florida**
  Policy on Transfer Associates Degree: http://www.calstate.edu/acadaff/codedmemos/AA-2007-37.pdf
- **Louisiana**
  http://collegeproductivity.org/sites/default/files/LA_Transfer_Associate_Degree_-_one-pager[1]toKC[1].doc.pdf
- **The California State University**
  120-credit degrees: http://www.calstate.edu/acadaff/codedmemos/AA-2007-37.pdf
- **University System of Maryland**
  Course Redesign: http://www.usmd.edu/usm/academicaffairs/courseredesign/
- **Carnegie Mellon University**
  Open Learning Initiative: http://oli.web.cmu.edu/openlearning/
- **WGU Indiana (Western Governors University)**
  Executive Order: http://www.in.gov/legislative/iac/20101229-IR-GOV100781EOA.xml.pdf
- **University of Maryland University College**
  http://www.umuc.edu/
- **Rio Salado College**
  http://www.riosalado.edu/
- **Southern Regional Education Board**
  Electronic Campus: http://www.electroniccampus.org/

  Principles of Good Practice: http://www.ecinitiatives.org/publications/Principals_2004.pdf
- **Midwestern Higher Education Compact**
  Midwest Student Exchange: http://www.mhec.org/MidwestStudentExchangeProgram
- **New England Board of Higher Education**
  New England Regional Student Program: http://www.nebhe.org/programs-overview/rsp-tuition-break/overview/
- **Western Interstate Commission for Higher Education**
  Western Undergraduate Exchange: http://wue.wiche.edu/.

STEP 4: BUSINESS EFFICIENCIES

Business Practices That Produce Savings to Graduate More Students.

Taxpayers and policymakers are more willing to invest in higher education when colleges and universities demonstrate they are good stewards of public money and manage spending decisions well. Colleges and universities should systematically review and prioritize programs from campus operations, academics and athletics to 1) reduce or eliminate lower-priority programs and services, and 2) consolidate or outsource non-core programs and services. Over the years, institutions have added courses and programs without systematically analyzing their relative contribution to the overall welfare of individuals, society and the economy. In a quest for smarter students, better reputation and financial support, many institutions unrealistically strive to be all things to all people instead of focusing on what they do best. As a result, the vast majority of U.S. institutions are over-programmed for their available resources. One frequently overlooked source of money for making new investments is the reallocation of an institution's existing resources.

Without faculty support, achieving the kind of change in higher education the country needs to prepare for the future simply won't be possible. The nonpartisan research firm Public Agenda has found that addressing business-side efficiencies is a classic "first-things-first" issue for faculty members.[24] In part, this is because only about a third of faculty members today are in tenure-track positions; the remainder are part time or contingent. Meanwhile, the numbers of people in highly compensated administrative positions has grown dramatically, according to the American Association of University Professors. This imbalance must be addressed if faculty members are to be persuaded to participate in productivity efforts. In the case of the University System of Maryland, cited earlier, the Effectiveness & Efficiency Initiative began with a major focus on systems operations rather than on academics; this approach cleared a path for effective faculty engagement around course redesign.

At the state level, policymakers should limit the number of research institutions; focus regional, four-year campuses on teaching; and rely on community colleges to provide lower-cost education for students enrolled in general education coursework and those receiving workforce training. So-called "mission creep" can be a problem at institutions that aspire to attract research funding, because fulfilling these aspirations can increase costs and reduce productivity in terms of serving undergraduate students. Competitive athletic programs almost always require substantial subsidies from colleges and universities that pull money away from academics.[25]

To spur efforts to reform business practices, governors and legislators should eliminate any policy that prevents joint or bulk purchasing in areas such as health care, information technology, equipment, supplies and energy. Instituting administrative efficiencies in payroll, purchasing and other non-core functions also can make more money available to serve students. Employee contributions to health care and retirement plans also deserve scrutiny and should be measured against other private sector, competitively established contribution and benefit levels. Campuses should be required to consider consolidating back-office operations through use of common technology, with institutions reaching beyond higher education or even state borders to partner with K-12 school districts, government agencies and quasi-public entities to achieve economies of scale and scope.

Institutions should be required to show how they reallocate savings toward increasing the number of students who complete high-quality undergraduate degree and credential programs.

STATE SUCCESS **IN ACTION**

Maryland formed the University System of Maryland Board of Regents Work Group for Effectiveness & Efficiency (E&E) in 2003. The group reviewed all aspects of the academic enterprise to "improve academic quality, maintain access, replenish the USM fund balance, implement measures for dealing with budget difficulties, and publicly demonstrate efficient and effective operations."[26] Driven by Regents chair Clifford Kendall and Chancellor William "Brit" Kirwan, this effort aimed to streamline the system's cost structure and develop a national model of effectiveness and efficiency. Initial projects targeted administrative functions with immediate savings, including auditing, construction management and procurement services. By 2006, E&E had evolved to address academic productivity, establishing new policies and system-wide practices regarding faculty workload, course redesign, credit-hour caps on programs, requirements for off-campus study to increase capacity to serve students and a trimester pilot.

The E&E initiative generated $208.4 million in savings from FY 2004 through FY 2010. Buying electricity collectively saved $5 million within three years, while a joint purchasing agreement with Microsoft saved an additional $1 million a year. More savings were realized from maintenance contracts and a system that allowed students to enroll in courses on more than one campus through a "one-stop" registration process. This process also can smooth students' efforts to transfer credits.

The **Midwestern Higher Education Compact** (MHEC) received an $800,000 grant from Lumina Foundation in 2008 to implement regional initiatives aimed at improving productivity for colleges and universities that face increasing costs for energy, utilities and health care for employees and students. To date, the three-year effort has led to the release of an RFP for group contracts that can save money on energy-conservation retrofitting components purchased by a broad range of institutions in an effort to reduce their energy costs. MHEC is also considering bundling energy services and products to enhance the value of cutting-edge energy-reduction products and make them available to a broader range of institutions at a reduced cost. In health care, MHEC is exploring a regional student health-benefit program in which large and small institutions pool together to purchase quality student health insurance at reduced expense. Additionally, to find practical solutions that don't significantly disrupt current employee health plans, MHEC is working to identify niches, such as pharmacy benefits, where collective purchasing can achieve cost savings. These new initiatives will add to MHEC's past successes in saving institutions and students more than $441 million on joint computer hardware and software purchases, property and casualty insurance and telecommunications services.[27] MHEC's services are available to higher education institutions, K-12 schools and nonprofit organizations across the country.

Ohio has instituted several cost-cutting initiatives designed to improve efficiency throughout the state's higher education system. These initiatives include: a statewide shared purchasing consortium, statewide cost-savings collaborations across multiple institutions and efficiency-oriented formulas for distributing public funds. State colleges and universities identified key priorities, developed strategic plans, adopted cost-containment practices and implemented best practices. As a result, campuses reported a combined savings of $322 million in FY 2005 and FY 2006. The state mandated an additional 1 percent efficiency savings in FY 2008 and 3 percent increases in FY 2009, FY 2010, and FY 2011. Campuses reported more than $186 million in efficiencies in FY 2008, $200 million in FY 2009 and $285 million in FY 2010.

In FY 2010, the chancellor created a Statewide Efficiency Council comprising a variety of stakeholders, including faculty and students. The council meets regularly to monitor and promote achievement of business efficiencies and cost-saving collaborations within the University System of Ohio. The work is focused on five areas: energy efficiency; IT and educational technology; human resources and administrative efficiency; academic efficiency; and procurement.

In addition, the Ohio Inter-University Council, an association of public colleges and medical schools, manages several cooperative purchasing programs to promote and manage high-volume purchases such as through pooling risk to obtain lower-cost property and casualty insurance. Ohio already has a statewide electronic library system, and campuses are looking to create collaborative arrangements involving information technology and administrative computing. Further, the Rx Ohio Collaborative drug-benefit program will be available to all Ohio public-sector employees, including government workers, public school employees and higher education employees. Within the first year, Ohio State University saved 9 percent on prescription drugs spending through a bulk purchasing agreement. The program was expected to save $300 million by 2011.

STEP 4: LESSONS LEARNED

- **Articulate statewide priorities that create clear and measurable efficiency expectations tied to state workforce and economic development goals.**
- **Focus institutions on what they do well and push them to eliminate duplicative or low-demand academic programs.**
- **Demand evidence that savings are promoting increased degree completion.**
- **Outsource the delivery of non-academic functions whenever possible.**
- **Set expectations for governing board appointees to prioritize and reallocate in an academically responsible way.**
- **Support a common technology platform.**
- **Institutionalize efficiency efforts and expectations through the creation of a standing state efficiency council.**

SELECTED NATIONAL ASSOCIATIONS AND INITIATIVES

- **The National Association of College and University Business Officers (NACUBO)**
  http://www.nacubo.org/Business_and_Policy_Areas/Organizational_Effectiveness.html
- **The National Consortium for Continuous Improvement in Higher Education**
  http://www.ncci-cu.org/
- **The Kuali Project**
  http://kuali.org/
- **The National Association of Education Procurement**
  http://www.naepnet.org/iMIS15_prod/public/default.aspx
- **The Shared Services Benchmarking Association**
  http://ssbenchmarking.org/
- **The National Association of State Procurement Officers** http://www.naspo.org/
- **The National Association of Energy Service Companies**
  http://www.naesco.org/

ENABLING LEGISLATION, REGULATION OR RESOLUTION:

- **Maryland**
  USM Board of Regents Effectiveness & Efficiency (E&E) Charge: http://www.usmd.edu/usm/workgroups/EEWorkGroup/initiative.html

  E&E Policies: http://www.usmd.edu/usm/workgroups/EEWorkGroup/eeproject/eepolicy.html

  E&E Reports: http://www.usmd.edu/usm/workgroups/EEWorkGroup/eeproject/eereports.html
- **Ohio**
  USO Advisory Committee on Efficiency Directive: http://regents.ohio.gov/actions/documents/Dir2008-027.pdf

  General information: http://regents.ohio.gov/policymakersguide/efficiency.php

  The Rx Ohio Collaborative: http://www.rxoc.org/

Disclaimer

This report provides a nonpartisan analysis of lessons learned from implementation of college productivity strategies aimed at increasing the percentage of Americans with high-quality degrees and credentials to 60 percent by 2025. For more information, see CollegeProductivity.org. Lumina Foundation does not lobby or make grants to support lobbying activities. The views expressed in this report are those of the authors and do not necessarily represent those of Lumina, its officers and directors or employees.

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12 Complete College America advocates for increased college completion with consistent state policy recommendations for performance funding, developmental education reform, time-to-degree policies, and accelerated, more structured

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14 *Navigating the New Normal*, http://www.collegeproductivity.org/sites/default/files/LuminaNewNormalRptFnlRv.pdf

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