

SREB

College Affordability: Promising State Policies and Practices

Many states are experimenting with mechanisms for making college more affordable while maintaining quality and access. This report examines promising or innovative state programs to improve college affordability and credential attainment. Many of these approaches show innovative thinking and bear watching to see if they result in meaningful outcomes.

The first set of programs improve affordability through educational productivity. Programs in the second group indirectly reduce costs to students through financial aid or by reducing or eliminating tuition. These examples are not meant to be comprehensive. Evaluations of the programs and policies are not conclusive, as innovation and experimentation continue. Unless otherwise noted, evaluations should be read as formative rather than summative as several programs are in their early years of operation.

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Indirect Cost-Reduction Programs and State Examples

These programs reduce the cost of college because:

- Students come to college prepared (through K-12 and early outreach programs).
- Students do not have to repeat coursework (seamless transfer of community college courses to a four-year institution, if desired).
- Students take courses that maximize their learning (through hybrid online and in-person courses, self-paced courses and credit for prior knowledge).
- Colleges provide non-traditional students with affordable and efficient ways to go back to school.

K-12 Preparation and Early Outreach Programs

Early outreach programs reach students in high school, or even sooner, and ensure they are adequately prepared to succeed in postsecondary education. These programs take many forms and include dual/concurrent enrollment, advanced placement courses, early college high schools, early assessment and specific high school pathways. Some approaches, like concurrent enrollment and early assessment, are well known, and many states either have a program in place or are in the process of creating one. Other early outreach programs, such as early college high schools, are not widely used but preliminary findings indicate a positive impact on college preparation.

Concurrent Enrollment

Dual/concurrent enrollment programs allow eligible high school students to take postsecondary courses, usually for credit from both the college and high school. Dual enrollment funding comes from several sources, many dictated by state policy. High schools and colleges are funded for the students enrolled in their courses (based on high school average daily attendance and college full-time equivalent funding). When students take a dual or concurrent enrollment course, they are enrolled in two institutions, and decisions must be made regarding how per-pupil funding is distributed. In many cases, both institu-

tions receive a share. Student tuition and financial aid also need to be addressed by each state program.¹

Participation and Outcomes: Dual enrollment is nationally widespread. Jobs for the Future singles out two SREB states, Texas and Florida, among six in the nation with effective policies supporting early college strategies for low-income youth.²

- Nearly 1.3 million U.S. high school students took courses for college credit in a dual enrollment program in 2011.
- More than 22,000 high school students were enrolled in college courses through programs targeting at-risk students during the 2010-11 academic year.
- Four percent of all postsecondary institutions offered a dual enrollment program in 2010-11 geared specifically toward high school students at risk of educational failure.³

Research on dual-enrollment students is generally positive, finding that dual-enrollment students have:

- a higher likelihood of enrolling in a four-year college
- a smaller decline in grades from high school to college
- a higher likelihood of persisting.⁴

Community College Research Center studies in Florida, New York City and California found that dual enrollment participation is positively related to a range of college outcomes, including college enrollment and persistence, greater credit accumulation and higher college GPA.⁵ Analysis of dual enrollment programs using longitudinal data found that dual enrollment participation increases the probability of attaining any postsecondary degree and a bachelor's degree by 8 percentage points and 7 percentage points, respectively. Furthermore, the study found that first-generation college students who participated in dual enrollment were more likely to attain a college degree than similar nonparticipants, suggesting that dual enrollment might be especially effective for low-income students.⁶

However, not all assessments of dual enrollment have been positive. A recent analysis of the Running Start program in Washington state found that while dual enrollment students are more likely to earn an associate degree or enroll in college in the year following high school, dual enrollment does not increase full-time college attendance, and students are less likely to attend a four-year university. Running Start is a long-standing dual enrollment program, which began in 1992 and allows juniors and seniors to take courses tuition-free at any of the state's 34 community colleges. Once students enroll in Running Start, they may take a combination of high school and college courses at community colleges, technical colleges, and certain four-year universities. High school, university and technical college credits may be obtained for successfully completing courses.

Running Start has enrolled more than 10 percent of the state's high school juniors and seniors since the 2007-08 school year. The difference in participation at community colleges and four-year institutions may be due to the fact that in-state public universities treat Running Start students who have not completed an associate degree as freshmen for admissions purposes, even though they may have a substantial number of credits. If they choose to complete an associate degree, Running Start students may apply to public four-year colleges as transfer students. This mix of results for a dual enrollment program not only underscores the need for more longitudinal research but also suggests that program design and implementation can influence student enrollment patterns.⁷

Early Assessment Programs and Interventions

A 2012 Jobs for the Future study on best practices in early assessment found that while statewide assessments and early interventions are relatively new and not widespread, preliminary results are promising. The study looks at early assessment programs in California, Florida, Kentucky and Virginia. In 2003, California State University, in collaboration with the California Department of Education and the state's public schools, pioneered the first early assessment

system, which is now considered a national model. The California Early Assessment Program (EAP) gauges high school students' academic preparation for college and established a course for underprepared high school seniors to help them reach proficiency.⁸ Other examples of early assessment include:

- **Kentucky:** Students are required to take the ACT in the 11th grade. Students who fail to meet the ACT benchmark for postsecondary courses are provided the opportunity to participate in accelerated learning to address deficiencies.⁹
- **Florida:** High school students who do not score high enough on end-of-course exams in 10th grade reading and math must take the state's Postsecondary Education Readiness Test (P.E.R.T.). A student who does not score high enough on P.E.R.T. is required by the program to enroll in and complete postsecondary preparatory instruction prior to high school graduation. P.E.R.T. has been the primary college placement tool for the Florida College System since 2010.¹⁰
- **Virginia:** The State Department of Education developed new senior-year capstone courses for students who have completed the coursework to graduate but fall short of mastering state college- and career-performance expectations.¹¹

Participation and Outcomes: In 2013, California administered 384,722 English EAP tests (88 percent of high school juniors) and 212,836 mathematics EAP tests (84 percent of high school juniors). A 2012 study by Policy Analysis for California Education (PACE) of California's EAP found participation reduced the average student's probability of needing remediation at California State University by 6.2 percentage points in English and 4.3 percentage points in mathematics.¹² Similar data currently do not exist for the other state programs in the study, but a Jobs for the Future study noted anecdotal evidence in Kentucky, which suggests that requiring all high school juniors to sit for the ACT is increasing academic rigor, strengthening teacher practice, and prompting students who otherwise may not have considered college as an option to enroll after graduation.¹³

Other states are implementing early assessment programs in conjunction with national assessment organizations. Two assessment organizations — Smarter Balanced Assessment Consortium (SBAC) and the Partnership for Assessment of Readiness for College and Careers (PARCC) — were funded by the U. S. Department of Education and have several participating states; there are also a handful of state-led consortia. SBAC and PARCC assessments are aligned with the knowledge and skills students need to succeed in college and the workplace. In spring 2015, 7 million students in grades three through eight and grade 11 in 18 states and the U.S. Virgin Islands took the end-of-year SBAC assessments. More than 200 colleges and universities in seven of these states have decided to use the assessments as part of a multiple-measures approach to determine whether students are ready for credit-bearing courses and can be exempted from developmental courses.¹⁴ In the 2014-15 school year, 5 million students in 11 states and the District of Columbia took the PARCC annual assessments in grades three through 11.¹⁵

Legislation in Maryland in 2013 created the College and Career Readiness and College Completion Act, which catalyzed the development of senior-year transition math and English language arts and literacy courses for students who do not meet college-readiness benchmarks state assessment by the end of the 11th grade. The legislation required high schools to have transition courses by 2015 for students who are unprepared for college-level courses in those subjects.¹⁶

Early College High School

Over the past decade, Jobs for the Future, with partner organizations from the Early College High School Initiative (ECHI) launched by the Bill & Melinda Gates Foundation in 2002, has started or redesigned over 280 schools that serve more than 80,000 students in 31 states and the District of Columbia. Participating SREB states are Georgia, Florida, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee and Texas. Through the ECHI, Early Colleges partner with colleges and universities to offer enrolled students an opportunity to earn an associate degree or up to two years of college credits toward a bachelor's degree during high school at little or no cost to students.¹⁷

Participation and Outcomes: A 2013 evaluation of Early College high schools by the American Institute for Research found significant increases in college enrollment and completion among participants. Specifically, the study found that 81 percent of Early College students enrolled in college, compared with 72 percent of comparison students. Up to one year after high school, 21 percent of Early College students earned a college degree (typically, an associate degree), compared to only 1 percent for comparison students.¹⁸ Early College students were more likely to enroll and graduate from college; in addition, Early Colleges appeared to mitigate the traditional educational attainment gaps between advantaged and disadvantaged students.¹⁹

State examples: Many states have ECHIs, but North Carolina and Texas, two SREB states, have large student participation.

North Carolina

The Early College High School Initiative was launched in North Carolina in 2004, developed in partnership with the North Carolina Department of Public Instruction, the North Carolina Community College System, the University of North Carolina, North Carolina Independent Colleges and Universities, and North Carolina New Schools. Through the program, students earn two years of transferable college credit or an associate degree without paying tuition. The program aims to align curriculum requirements between high school and college for a coherent progression. Some initiatives have partnered with businesses so students can participate in job shadowing and internships as part of their education.²⁰

Participation and Outcomes: As of 2014, North Carolina had 77 ECHI schools that served more than 15,000 students in 71 counties and school districts across the state.²¹ A 2010 study by Early College High School (ECHS) programs in North Carolina shows that the program has been successful in achieving increased readiness and attainment. More than 900 associate degrees were conferred to Early College students in 2013; 55 percent of 2013 early college graduates earned an associate degree or two years of transferrable college credit. A greater percentage (32 percent) of early college graduates had enrolled in a four-year college six years after starting ninth grade compared to graduates in the

control group (22 percent). According to the State Board of Community Colleges, nearly 50 percent of the Early College High Schools have had dropout rates of zero. Furthermore, the ECHS model is reducing some gaps that occur between students from low-income families and other students.²²

Texas

The Texas Early College Initiative was started in 2005 to target students at risk of not graduating from high school. Texas Early College High Schools provide over 60 hours of college credit, student support systems (including tutoring, counseling and mentoring), while reducing barriers to college for students who might not otherwise achieve postsecondary success. Texas had 154 ECHS locations in the 2015-16 school year.²³ Four of the new ECHS campuses have a career and technical education (CTE) focus and have been designated as part of the tri-agency CTE ECHS Initiative by the Texas Education Agency, Texas Higher Education Coordinating Board and Texas Workforce Commission.

Participation and Outcomes: The initiative in Texas has seen 95 percent of the 900 high school students who graduated in 2010 earn some college credit, and more than one-third have earned an associate degree.²⁴ A 2010 study of Early Colleges in Texas by Jobs for the Future found that students in Early College Initiative programs have a higher probability of exceeding state standards in math in ninth, 10th and 11th grades than students in traditional high schools. The programs had a positive effect on meeting or exceeding both math and reading standards on the Texas Academic Knowledge and Skills assessments, which measure the extent to which a student has learned and is able to apply defined knowledge and skills at each tested grade level. ECHS first-time ninth-graders were more likely to pass Algebra I and meet state course requirements, and ECHS 11th- and 12th-graders were more likely to take an AP class. ECHS students had a higher probability of earning college credits in high school and had lower absence rates than peers.²⁵

Other College Preparation Programs

Washington

Career Guidance Washington is a career- and college-readiness program model designed to prepare all students for their futures with support from an advisor or counselor with guidance curriculum and tools to develop the High School and Beyond Plan. This is a statewide guidance and life-planning program for all middle and high school students. Recent data indicate this program is working well when established as a schoolwide program. However, no specific student outcome data have been published.²⁶

California

In 2012, the California State University (CSU) System began a new college-readiness program called Early Start, which requires students who have not demonstrated college readiness in English or math to get started on their pathway to proficiency in the summer preceding their freshman year of college by taking developmental coursework.

Participation and Outcomes: In 2012, 15,214 students (27 percent of CSU's freshman class) registered for Early Start systemwide. The Early Start program had higher participation among Latino and black students: 57 percent of participants were Latino, compared to 41 percent of the entire freshman class, while 8 percent of Early Start students were black, compared to 5 percent of all freshmen. The Early Start program shows signs of success as 91 percent of participants systemwide satisfied the English requirement, and 95 percent satisfied the math requirement.²⁷

Transfer Programs

Transfer programs — when implemented well — can improve educational productivity by creating seamless pathways to four-year institutions and reducing course repetition. Statewide studies have shown that many students lose credits or have to re-take courses after they complete the transfer process. Creating statewide transfer agreements provides a smoother transition for students and

consistency across public institutions and systems in the state. Transfer legislation that guarantees transfer of an associate degree into a four-year institution has also been on the rise. California and Oregon passed legislation requiring guaranteed transfer of an associate degree. Thirty-five other states enacted some type of policy before 2011 that requires guaranteed transfer, although transfer may not be statewide and apply to all public institutions.²⁸

SREB actively promotes streamlined transfer policies. A 2010 SREB report made specific recommendations for statewide transfer policies, including that states should ensure a guaranteed statewide college-transfer system based on standard, lower-division curriculum requirements recognized by all public community colleges and universities. The report notes that effective statewide college-transfer policy should result in an equally efficient path to the bachelor's degree for transfer students as for those who start at four-year universities.²⁹ A 2013 SREB report recommends that states currently relying on individual- and institutional-based transfer agreements streamline state policy to create one comprehensive, statewide transfer policy. The report goes on to highlight important advances in transfer policy in five SREB states — Arkansas, Florida, Kentucky, Louisiana and Tennessee — which have passed legislation setting up the foundation for statewide transfer policy.³⁰ Continuing progress in Southern states in making transfer policies efficient and standardized will be part of SREB's strategy to help students obtain degrees in the most direct and cost-effective manner.

Hybrid Courses and Program Redesign

Other methods states have employed for improving educational efficiency are alternative course formats and course redesign. Courses that can be delivered online — through hybrid or redesigned courses that optimize technology in the classroom, grading or course format — can make college possible for students juggling the demands of school, work and family.

Institutions have been offering online and hybrid courses for many years. Scaling this up to an entire sector or system of institutions, however, can be more

daunting. Course redesign programs often use online formats or other kinds of technology to customize courses for students, which may help them progress through courses at a faster rate. Allowing students to complete courses on their own timeline can improve course completion for highly motivated students. Course redesign can also reduce costs for the institution and the student by reducing course repetition. Redesigned courses that use course-management systems have been shown to reduce the amount of time that faculty members spend on nonacademic tasks, like calculating and recording grades.³¹

Course Redesign

The National Center for Academic Transformation (NCAT) helped pioneer course redesign programs that improve student learning while reducing instructional cost. From 1999 until 2012, the center conducted redesign programs and measured progress. Redesigned courses use technology to enhance quality and decrease costs. Redesign projects focus on large introductory courses, which have the potential of impacting significant student numbers and generating substantial cost savings.³² Since 2012, NCAT has shifted its focus to conducting analysis on prior programs and creating course redesign planning resources.³³

A recent redesign example was the Missouri Course Redesign Initiative, which occurred from 2010 to 2013 and included 11 projects across 13 Missouri universities. Student learning improved in six of the 11 projects, as measured by direct comparisons of content mastery. Course completion rates (as measured by a final grade of C or better) increased in two courses, showed no difference in seven courses and declined in two courses. All but one project reduced instructional costs on average by 30 percent. The annual savings for the 11 projects was \$403,278.³⁴

Maryland

Maryland has implemented programs that achieve savings through greater educational efficiency, course redesign and an institutional cost-savings program. The course redesign initiative began in 2006 with initial results showing an improvement in the

successful completion rate of gateway courses and at a cost savings. By 2013, 37 courses across the University System of Maryland (USM) had been redesigned. The system's board policy on alternative credits requires that, on average, students complete at least 12 credits (or 10 percent) outside of the traditional classroom experience. On the whole, the policy has been successfully implemented and has provided the additional physical capacity to accommodate 2,000 to 3,000 more students systemwide.³⁵

In 2003-04, the USM launched its Effectiveness and Efficiency Initiative (E&E). Through the program's cost-savings strategies, the system optimized resources and addressed a number of challenges, including declining state aid, rising costs and increasing enrollments. The aim of the program was to promote enhancements in effectiveness and efficiencies in the USM operating model, increase quality, serve more students, and reduce the pressure on tuition. In order to reduce costs, system administrators took several steps, including: centralizing services such as internal audits, construction management, and real property development; strategically leveraging USM buying power, such as a pooled purchase of energy by USM schools acting as a shared entity; and implementing cost-effective energy management strategies.

Participation and Outcomes: For those institutions that have fully implemented redesigned courses, the reported average savings is 34 percent. Total bachelor's degrees awarded rose rapidly, with 1,100 more degrees awarded in 2012 than in 2011 and nearly 2,300 more than five years earlier. By 2010, 12.3 percent of total credits were completed by alternative means. The number of community college transfers to USM institutions has increased by 58 percent over a 10-year period.³⁶ The University of Maryland System reports that E&E had saved more than \$462 million by 2014. In addition to the savings, the program helped hold in-state undergraduate tuition flat in the 2006-2009 academic years, increased faculty classroom contact hours at undergraduate research universities by 20 percent, achieved all-time-high levels of community college transfer rates, shortened time-to-degree across the system to an historic best (averaging less than 4.5 years), and added 5,000 students in 2008-09, despite the absence of additional funding for enrollment growth.³⁷

Arkansas

Although many universities offer online courses, few institutions offer an exclusively all-online option. EVersity, established by the University of Arkansas Board of Trustees in 2014, is completely online, and courses are taught by University of Arkansas professors. Students take one course every six weeks and pay a flat credit hour fee with no additional fees or costs for textbooks. Since students pay as they go, there is less money due upfront and students can begin a course at seven different times during the year. Although any Arkansas resident who is a high school graduate can apply to eVersity, the program is targeted to those who have some college but did not complete a degree. Courses are offered in high-demand areas, such as business, criminal justice and healthcare management. Integrated career competencies, such as problem-solving and leadership skills, provide students with skills valued by employers. The online university will also offer supplemental instruction to students who need remedial work along the way. By the end of September 2015, eVersity had signed up over 100 students in its first week of accepting applications.³⁸

Adaptive Learning

A subset of hybrid learning includes courses designed using adaptive learning technology. In 2013, the Bill & Melinda Gates Foundation launched its Adaptive Learning Market Acceleration Program (ALMAP), which funded institutional pilots to redesign or create new courses in partnership with one or more adaptive learning solution providers. In this program, course content and assessment are personalized for students' needs and abilities. Technology-driven predictive modeling and learning analytics are used to determine the right mix of in-person and online learning tools.³⁹ In 2014, the Gates Foundation invited digital learning innovators to participate in an award program aimed at creating the new generation of adaptive digital courseware targeted to low-income, undergraduate students in high-enrollment courses. The foundation received 51 applications, with more than half of those including multiple organizations.⁴⁰

The Open Learning Initiative (OLI) at Carnegie Mellon University also uses adaptive learning through online courses based on best-in-class learning science and

technology. The OLI has the express purpose of linking learning experiences to course performance and outcomes in quantifiable ways.

Participation and Outcomes: While it is too early to say what the outcomes of these adaptive learning technologies will be, some of the preliminary findings are promising. Arizona State University's partnership with Knewton on redesigned emporium and mastery-based math courses resulted in an 18 percent increase in pass rates and 47 percent drop in student withdrawals. At the University of New South Wales, the introduction of online adaptive tutorials in a foundational first-year engineering mechanics course led to a decline in the course drop-out rate from 31 percent to 14 percent.⁴¹ An analysis of an OLI introductory statistics course with adaptive learning found that OLI students took 50 percent less time to learn the content and perform the same or better relative to the traditional students.⁴²

Alternative Pathways for Nontraditional Students

Several reports have found that states that want to dramatically increase the educational attainment of their populations will not do so without reaching out to older students re-entering college.⁴³ Creating solutions that work for re-entry students presents its own set of challenges as many of these students are pursuing a college education while maintaining a job or meeting family commitments. Re-entry students also are entering postsecondary education with prior experience that may be relevant to the new credential or degree they are seeking. In attempting to serve these students, states and their institutions have tried a number of strategies that apply the skills students enter with or work around the scheduling constraints of these students. While statewide examples are available for some of these approaches, like competency-based learning, other strategies, like industry partnerships, are being implemented at individual institutions.

Competency-Based Learning and Prior Learning Assessment

Competency-based learning and prior learning assessment often occur in tandem, either at institutions that specialize in competency-based education,

like Western Governors University (WGU), or through institutions that offer competency-based programs and courses or prior learning assessment in addition to traditional courses of study. After defining what constitutes competency-based programs, this section examines the extent to which states are implementing these approaches, challenges to implementation (specifically regarding state and federal policy hurdles), what is known about student participation and completion, whether cost savings can be obtained through this model, and quality assurance and acceptance of these programs by employers.

Competency-based models award credit based on student learning instead of seat time in class. Prior learning assessment indicates if academic credit should be awarded for content mastered previously. Because both formats allow students enhanced flexibility in obtaining a degree, the programs have typically been marketed toward students who would like to work on a degree or certificate at their own pace or who are unable or uninterested in college courses on campus. There is a wide array of competency-based education and prior learning assessment programs being developed and implemented that vary considerably by state and institution type. Some institutions offer complete degree or certificate programs through competency-based courses, while others only offer certain courses. Institutions also differ in how students pay for these programs. Institutions like WGU operate on a subscription or tuition model in which students pay a flat fee for a specified length of time (semester or year) and can enroll in as many courses as they want during that time. Other institutions and programs require students to pay per assessment or per course.

Among the many obstacles to implementation of competency-based education are state policy definitions and eligibility for federal financial aid. Federal student aid programs are designed to fund education that occurs within structured, discrete time periods (for example, courses within semesters) and aid is awarded on the basis of enrollment in credit hours. Because competency-based education students enroll in competencies rather than credit-hour courses, it is impossible to determine full-time status based on competencies alone. These programs have tackled this issue either by translating competencies to credit hours or establishing equivalencies between com-

petencies and credit hours. Another problem is that competency-based remedial education is specifically not eligible for funding. Furthermore, a student who passes a course upon entry rather than upon completion cannot qualify for aid for that credit. There are arguments on both sides for allowing students to get credit at entry. It would increase student efficiency, but it may expose the federal government to more fraudulent claims for aid.⁴⁴ The law continues to evolve, but progress is unclear since federal regulations are tied to credit hours. In 2005, modifications were made to federal law allowing students to be eligible without ties to the credit hour, but in 2006, the U.S. Department of Education opted to require institutions to convert their direct assessment programs back into the familiar credit-hour format. One area for optimism in this regard is a recent federal program that has granted 40 colleges a waiver from certain rules governing financial aid in order to experiment with competency-based education programs.⁴⁵ However, in 2015, the U.S. Department of Education's Office of the Inspector General issued a critical audit on the review process that the Higher Learning Commission, the largest regional accreditor, undertook while considering colleges' proposals for new competency-based credentials. In some cases, the audit noted that competency-based programs might need to be labeled as correspondence courses under federal rules for faculty interaction; that classification could affect federal aid eligibility. The inspector general's report cited concerns over misclassification of courses, which could result in overpayment of federal aid dollars. Some experts are concerned the audit's findings could have a chilling effect on competency-based programs under development.⁴⁶

Competency-based courses also face hurdles when it comes to state aid since program statutes and regulations often use credit hours or grade point averages as measures of student progress. States with the fewest barriers to competency-based education in terms of student eligibility are those that leave the assessment of student progress largely to the institutions. Determination of satisfactory academic progress and student eligibility requirements with minimal prescription from the state allows institutions the latitude to measure progress in a manner consistent with their academic program delivery modes.⁴⁷ Public institutions also face complications when

state funding formulas, as well as eligibility, are tied to the credit hour; an enrollment-based funding model is largely incompatible with direct assessment programming. In contrast, performance-based funding models typically function without reference to credit hours and are better suited to direct assessment programming. Another hurdle is state licensure criteria and criteria for program approval, which are currently tied to credit-hour standards in most states.⁴⁸

Participation and Completion: Currently, 34 colleges across the nation have competency-based education programs, with at least 18 more colleges developing programs. Students who enroll in institutions that are primarily or wholly competency-based tend to be older than traditional undergraduate students; the racial and ethnic diversity is broadly similar to national averages.⁴⁹ One significant problem in assessing CBE performance is the collection of student-level data. Many institutions that offer competency-based courses do not disaggregate competency-based education students from the rest of the student population, so analyzing whether students are more or less successful in this course of study is difficult to ascertain. Just nine institutions with stand-alone competency-based programs have student-level demographic data available. The 17 colleges with programs designed to teach new skills and content vary in their reliance on seat time. Racial and ethnic diversity varies substantially across colleges, as does age. According to a 2015 report, about 38 percent of students were between 25 and 34 years of age, 40 percent were between 35 and 49 years of age, and 11 percent were older than 50.⁵⁰

A few studies have been conducted on competency-based education participation and program outcomes. A 2013 study by the College Board of the College-Level Examination Program (CLEP) found that students who took the examination graduate sooner, enroll in fewer semesters, graduate with fewer credits and have GPAs higher than non-CLEP students, when controlling for demographics and prior achievement.⁵¹ In 2010, the Council for Adult and Experiential Learning (CAEL) released a report on a multi-institutional study on prior learning assessment and adult student outcomes. The study found that students with prior learning credit had better academic outcomes than other adult students,

particularly in terms of graduation rates and persistence. Furthermore, black non-Hispanic, Hispanic, and low-income students with prior learning credits had better academic outcomes than similar students without prior learning credits. Many of these students also shortened their time to degree, depending on the number of prior learning credits earned, with an estimated savings of around \$1,605 at a large public university to a high of around \$6,000 at other institutions. Prior learning students earning bachelor's degrees saved an average of 2.5 to 10.1 months completing their degrees, compared to non-prior learning students earning degrees. Prior learning students who earned 13 to 24 credits saved an average of 6.6 months, and those who earned 49 or more credits saved an average of 10.1 months. Prior learning students with associate degrees saved an average of 1.5 to 4.5 months in earning their degrees, compared to non-prior learning students who earned associate degrees.⁵²

Cost Savings to Students and Institutions: Cost savings depends on the circumstances of each student and the institution that she or he plans to attend. Competency-based programs are not guaranteed to save students money, partially because tuition and fees for prior learning assessment are typically not covered by federal aid. However, another issue in determining affordability is the fact that competency-based programs offer students the ability to progress at their own pace. This means that a student who is able to complete many courses or modules quickly might see significant savings; however, if the student is paying a flat subscription fee per term and is not able to progress rapidly, the competency-based program might actually exceed the cost of a regular program. Another complication is that students in ineligible competency-based programs cannot receive federal loans and must instead enter the private loan market, which often does not have terms as favorable as those of federally subsidized loans. The cost savings of gaining credits through standardized examinations can be substantial. But at most institutions, exams can be used to award credit for only lower-division courses.⁵³

Quality and Employer Acceptance: In 2015, Lumina Foundation conducted a survey of nearly 500 hiring managers at different companies across the country

to identify obstacles to the expansion and acceptance of broader competency-based education efforts. The study found low levels of awareness among hiring managers regarding this approach. The study found reasons for optimism and for concern in the employer landscape. One reason for optimism is that hiring managers already aware of competency-based education had a favorable view of the model and its graduates. And employers recognized that competency-based education — if applied correctly — could provide an informative indicator for identifying high-potential job candidates. However, the study found that the majority of employers were not aware of such programs and that some were wary of hiring competency-based graduates based on a perceived lack of quality. Even those with favorable views of these candidates reported that they were more likely to hire them for entry-level positions than senior management positions. Employers also reported wanting to see general skills — interpersonal skills, ability to adapt or abstract thinking — and expressed concern that these general skills will not be adequately developed in a targeted competency-based program.⁵⁴

Current Developments: In early 2014, a group of colleges and universities working together to address shared challenges in designing, developing and scaling high-quality competency-based degree programs formed the Competency-Based Education Network. The initial cohort included 18 colleges and universities and two public higher education systems that serve 42 campuses. The network expanded in 2015, adding 13 institutions and two public higher education systems representing 40 campuses.⁵⁵

Kentucky

Kentucky's Learn on Demand program offers certificate and degree programs in geographic areas that have the greatest workforce demand in the state. Learn on Demand was created by a consortia of colleges and faculty sharing the responsibility across institutions and building support and buy-in among institutional leaders and faculty across the state. Each program and course consists of competency-based modules and integrated assessments, with each module taking about three to eight weeks to complete. Students can complete one module at a time or sign up for the entire course at once.⁵⁶

Learn on Demand is fully accredited, and students are eligible for financial aid. While Learn on Demand required some state financial support at the start, the program has become financially self-sufficient from tuition revenue.⁵⁷

Maryland

In 2014, the Maryland Higher Education Commission adopted revised regulations to allow institutions to award competency-based credit, establish the process for approval of competency-based programs and reporting requirements, enumerate approved assessments of competency, and provide institutions more flexibility around the development of competency-based degree programs. The commission removed existing caps on credits for prior learning that could count toward a degree.⁵⁸

Texas

In 2013, Texas lawmakers enacted legislation that created the Texas Fast Start Program, a joint effort of the Texas Workforce Commission and the Texas Higher Education Coordinating Board (THECB). The program identifies and develops methods to support competency-based, rapid-deployment education delivery models in public colleges and technical institutes. The models and degree programs focus on fields and occupations in high demand. In 2014, THECB launched the Texas Affordable Baccalaureate Program, which is designed to provide a lower-cost, competency-based option for adult learners.

Reverse Transfer

Reverse transfer policies may enable students who transfer with college credit to earn an associate degree after they transfer to an upper-division institution. The reasons students do not receive a degree, even when they take the required coursework, vary. Some students who transfer to a four-year institution do not receive an associate degree before transferring because their ultimate goal is a bachelor's degree, which they plan to complete after transferring. Other students do not complete all of the required coursework before they transfer to another institution. However, often these students complete all the required coursework for the associate degree at the institution from which they transfer but fail to complete the required coursework

for a bachelor's degree. The reverse transfer option helps these students obtain the degree retroactively. Through reverse transfer policies and programs, students can combine credits they earned at two- and four-year institutions to be awarded an associate degree while working toward a bachelor's degree. One of the benefits is that transfer students with an associate degree are much more likely to persist to a bachelor's degree. Reverse transfer also helps ensure that students do not walk away empty-handed if they withdraw prior to completing a bachelor's degree. Recognizing completed coursework benefits efforts to increase attainment levels and provides students with a credential of value in the labor market.

The National Student Clearinghouse (NSC) has identified a group of students known as potential completers — individuals who could benefit from reverse transfer because they have two or more years of progress in postsecondary education but have not earned a degree or certificate. NSC found that nearly a quarter of students who started at a community college transferred to a four-year institution within six years, but only one in eight did so after receiving a credential. These estimated 2 million people have more than 60 credits but no degree and have the potential for earning an associate degree through NSC Reverse Transfer Service, a standardized and technologically enhanced process to enable institutions to transfer student credits efficiently and securely.⁵⁹

Participation and Outcomes: Reverse transfer policies differ by state. Some states require public institutions to retroactively award degrees, while other states offer reverse transfer degrees on an institution-by-institution basis. Ten states have statewide policies in place that require public institutions to retroactively award associate degrees to eligible students. Other states offer reverse transfer through board policy and institutional agreements. States with reverse transfer legislation have taken different routes to policy and implementation oversight.⁶⁰ The majority of states with reverse transfer legislation were initially funded through the Credit When It's Due initiative, which provided funding for 495 colleges and universities in 15 states to implement the technology and processes needed to support reverse transfer regardless of legislation. So far, the program has enabled 7,000 students from 11 states to secure associate degrees.⁶¹

Texas

In 2011, Texas enacted the Texas Reverse Transfer Initiative, which required higher education institutions to create reverse transfer policies. Lone Star College and the University of Texas at Austin took on leadership for the initiative in which students must have earned at least 30 credits at a lower-division institution before transferring to a general teaching institution. After students have transferred, they must earn a cumulative total of 66 credits of coursework that meet the requirements for an associate degree.

Texas public universities are required to identify, track and follow up with each student who has (1) earned at least 30 credit hours at a community college and (2) completed a total of 66 credit hours. Once a student meets these requirements, the university — with the student's permission — sends the community college the student's course completion transcript. The community college reviews the transcript information and determines whether the student completed sufficient credits to qualify for an associate degree.⁶² Since colleges are not required to report how many students are awarded a degree through reverse transfer, it is difficult to assess the success of the program.⁶³ It is estimated that 270,000 Texans could be eligible to receive associate degrees for coursework they have completed through reverse transfer.⁶⁴

Georgia

In 2014, Georgia started "Go Back. Move Ahead," an initiative aimed at helping the 1.1 million working-age adults living in Georgia who completed some college but had not earned a degree. While the initiative does not provide financial assistance to students, it simplifies the process, allows more flexible ways to transfer earned college credits, offers additional course schedule options and provides a personal academic advisor. Georgia's 60 universities, as well as 23 technical colleges, participate in this initiative.⁶⁵

Kentucky

Project Graduate is a statewide program that assists former Kentucky State University students who have accumulated at least 80 or more semester credit hours at a public four-year university or more than 30 credits at a community college without a degree.

This collaborative effort between campuses and the Kentucky Council on Postsecondary Education was launched in 2007 and, according to the council, had graduated 721 students by 2012.⁶⁶

Public-Private Partnerships

Realizing the benefits of a well-prepared workforce, some businesses are becoming directly involved in creating opportunities for students to gain credentials through industry partnerships. Examples of these partnerships include IBM's Pathways in Technology Early College High Schools (P-TECH) and Toyota's Advanced Manufacturing Technician (AMT) program. P-TECH is a 9-14 grade school and a collaboration among IBM Corporation, the New York City Department of Education, the City University of New York and New York City College of Technology. Students enrolled in the Early College High School graduate with a high school diploma and an associate degree in a technology field of their choosing — at no cost to students. Toyota's AMT program, a partnership with Kentucky's Bluegrass Community College, combines classroom instruction with onsite training at a local Toyota manufacturing facility, resulting in an associate degree in applied science. Students receive paid work experience along with a high-tech curriculum, general education skills, and exposure to workplace culture.⁶⁷

A different kind of partnership is underway in Kalamazoo, Michigan. In 2005, the Kalamazoo Promise program was launched to offer tuition subsidies to graduates of Kalamazoo Public Schools (KPS). Funded by anonymous private donors, the Promise pays up to 100 percent of tuition and fees for students who enroll in any public postsecondary institution in Michigan. The conditions to qualify for the Promise: a student must be continuously enrolled in KPS since at least ninth grade, live in the school district, graduate from KPS and enroll in a public college in the state.⁶⁸

Participation and Outcomes: As of fall 2014, approximately 1,400 KPS graduates were using the Promise, which amounts to an average spending per recipient of about \$4,000 per semester. A 2015 analysis by Upjohn Institute for Employment Research found substantively large and statistically significant effects of the Promise on many postsecondary outcomes,

including college enrollment, college credits attempted and credential attainment. Researchers estimated that the scholarship increased by 14 percent the chance that students will enroll in some postsecondary education within six months of high school graduation. It also increased the chance that students will enroll in a four-year college by 34 percent. The analysis estimates that the scholarship increases the cumulative number of credits attempted by 15 percent as of two years after high school graduation, and these effects persist. The

Promise effect on attainment of any credential as of six years after high school graduation is between 9 and 12 percentage points, which represents an increase in credential attainment of 25 to 34 percent. Not only did the Kalamazoo Promise scholarship have a powerful impact on enrollment and completion, but these effects were at least as great and often greater for nonwhite students than for white students. Furthermore, the effects of the Promise are both substantively and statistically similar for low-income students.⁶⁹

Direct Cost-Reduction Programs and State Examples

Need-Based Financial Aid

Financial aid is a valuable tool in lowering the cost of college to students and families. States offer financial aid based on family and student income (need-based grants), prior student performance (non-need-based aid) or a combination of need and non-need components. Several recent studies on need-based financial aid find that grants have a positive impact on postsecondary access and persistence for low-income students.⁷⁰

A 2010 evaluation of a need-based aid program in Ohio reported that dropout rates decreased by two percent, the likelihood that students would attend a four-year college increased, and participants' GPAs increased after one year.⁷¹ A 2013 study by the Future of Children collaborative examined financial aid programs and showed that lowering costs can improve both college access and completion.⁷² A 2012 study on the impact of a private, need-based college financial aid program that distributed grants at random among first-year Pell Grant recipients at 13 public Wisconsin universities found that the grant increased completion of a full-time credit load and re-enrollment rates for a second year of college.⁷³ Another study found that an extra \$1,000 in grant aid increased the probability of enrollment by 11 percent.⁷⁴ In contrast to the studies on need-based aid, a 2012 analysis of 25 states' non-need-based aid programs found that the programs have no meaningful or positive effect on college completion and do not increase the percentage of young people with a college education.⁷⁵

According to the National Association of State Student Grant & Aid Programs (NASSGAP), of the grant money awarded in 2012-13, 75 percent was need-based (up slightly from 2012), and 25 percent was non-need-based. Seventy percent of the total amount of need-based grants awarded was distributed by California, Illinois, New Jersey, New York, North Carolina, Pennsylvania, Texas and Washington, which collectively gave about \$5 billion in undergraduate need-based grant aid. Georgia, Tennessee, South Carolina and West Virginia provided the greatest amount of grant aid — both need- and non-need-based — on a per capita basis.⁷⁶

Many examples of innovative financial aid programs are implemented at the state level. This section will only highlight those programs that are either need-based or contain both a need and non-need component.

Indiana

In 1990, Indiana began the 21st Century Scholars Program to raise the education aspirations of low- and moderate-income families. The program offers income-eligible state-resident students up to four years of paid tuition at an eligible Indiana college or university after they graduate from high school. Students sign up for the program in middle and high school and commit to academic success, a drug- and alcohol-free lifestyle and participation in college-preparation activities.⁷⁷ Once in college, Scholars receive support to complete their college degrees and connect to career opportunities. Students must

enroll in college within one year after high school graduation. Recently, the program added additional student performance and high school completion metrics for students to qualify for grants.⁷⁸ The program has also been noted by researchers because it reaches out to low-income students at an early age to inform them about college choices and funding opportunities.

Participation and Outcomes: A 2014 report by the Indiana Commission on Higher Education stated that there are over 100,000 Scholars enrolled statewide in middle school through college. Positive preparation and enrollment outcomes are associated with the program: 78 percent of Scholars entered college directly after high school compared to 66 percent of all Indiana students, and 65 percent of Scholars were deemed college-ready and not in need of remediation.⁷⁹ However, the results have been mixed when looking at college completion: 33 percent of Scholars graduate within 150 percent of program time, compared to 42 percent of all Indiana students.

Even though Scholars do not complete at the same rate as all Indiana students, they do complete at a higher rate than all low-income students (22 percent).⁸⁰ These findings are corroborated by another 2013 study, which examined enrollment in the program in ninth grade rather than college completion. This study attempted to control for various statistical factors, such as self-selection and student differences. The study found that when controlling for these differences, students who were enrolled in the Scholars Program were more likely than other students to be enrolled in college in pursuit of either a two-year or four-year degree. There were no statistically significant differences in terms of college completion. The authors point out that the negligible difference in completion among Scholars (who are low-income) and students of all income levels suggests that the Scholars Program may have played an important equalizing role.⁸¹ Another study that looked at trends by race found that Hispanic Scholars have much higher completion rates than their non-Scholar Hispanic peers.⁸²

Oklahoma

Oklahoma has several financial aid programs, but the primary one is Oklahoma's Promise (formerly called Oklahoma Higher Learning Access Program). This scholarship program began in 1992, and the first scholarship funds were released to 1996 high school graduates from low-income families. Participants must take specified courses in high school and maintain a 2.5 GPA, attend school regularly, and refrain from substance abuse and criminal or delinquent acts.⁸³ Once a student begins postsecondary education, he or she is eligible for benefits for a maximum of five consecutive years or the completion of a bachelor's degree. Oklahoma's Promise students must maintain good academic standing in college to remain eligible for benefits. Students lose benefits if their GPA falls below 2.0 during freshman or sophomore years or below a 2.5 from junior year until completion. The Promise award equals resident tuition at Oklahoma public colleges and universities.⁸⁴

Participation and Outcomes: Oklahoma Promise scholarship recipients outperform their peers in several important areas. According to a 2014 annual report, test scores for low-income high school students who were part of the Promise program were higher than test scores for low-income high school students who were not. Promise students also had lower rates of remediation and higher freshman to sophomore persistence rates. Degree completion rates were also higher for Promise participants — total degree completion over 10 years for Promise students was 58 percent compared to 48 percent for non-Promise students. However, enrollment in the program has been declining since 2012, partly driven by more stringent family income checks, new college GPA requirements and a lack of inflation adjustment since 2000 to the upper family-income limit.⁸⁵

Massachusetts

Massachusetts' MASSGrant provides funds to state residents who are first-time undergraduate students enrolled full time in a certificate, associate or bachelor's program at an eligible institution based on financial need. Grant awards vary depending on a student's income and type of institution; students are required to maintain satisfactory academic progress to stay eligible.⁸⁶ In 2012, the state added

an additional award to motivate students to do well in school. Once a MASSGrant student has a minimum of 24 credits, he or she may qualify for an additional Performance Bonus Grant. The Performance Bonus Grant requires that a student achieve at least a 3.0 GPA by the start of the academic year for which a Performance Bonus award is made and be enrolled for at least 12 credits.⁸⁷

Participation and Outcomes: Of the full-time, degree-seeking recipients of the MASSGrant who started public colleges and universities in 2005, 17.5 percent finished two-year associate degrees within three years compared to the state average of 14.3 percent and the national average for low-income students of 11.3 percent. Furthermore, 61.3 percent of these students graduated within six years with four-year bachelor's degrees compared to the state average of 57.8 percent and the national average for low-income students of 48.2 percent.⁸⁸ Although students show positive results, the program has lost purchasing power over the years. According to a 2014 report, the percentage of tuition and fees at a public higher education institution supported by MASSGrant funding declined from a high of 80 percent in 1988 to just 9 percent in 2013.⁸⁹

Furthermore, Massachusetts participated in a pilot program from 2012-16 called the Completion Incentive Grant Fund (CIGF). CIGFs are incentive grants provided to low-income students for persisting and completing their degree or certificate program of study over a maximum of four years. To qualify, students must meet Pell Grant eligibility, earn nine to 15 credits per semester, maintain a minimum GPA of 2.0 each semester and make satisfactory academic progress. Award value depends on the number of credits completed, with a maximum of \$1,000 per semester.⁹⁰ The CIGF pilot is set to be reviewed in 2016; no publicly released metrics are available on how the program is performing to date.

California

In 2008, California and several other states worked with MDRC to offer a small number of performance-based scholarships to needy students. The project aimed to test an innovative strategy for addressing two policy objectives: increasing the financial sup-

port available to low-income students and creating an incentive for them to complete their courses and make more timely progress toward degrees. The idea was to provide students a supplement to existing federal and state financial aid, contingent on enrolling in a minimum number of credit hours and making passing grades. The performance-based scholarships were paid directly to students (rather than to the colleges or universities they attend) to reward students for their progress and to allow them to make financial choices about how best to support their schooling.

In California, the Cash for College Performance-Based Scholarship (CFC-PBS) program offers need-based grants contingent on students meeting certain academic benchmarks — a half-time course load with a C or better grade point average. Unlike merit-based scholarships, the program has no academic criteria for eligibility at the outset. Early results of the CFC-PBS program in California showed modest but positive effects on student outcomes. The program encouraged more students to matriculate; this increased matriculation largely at community colleges. However, the program had only limited effects on persistence from semester to semester, and only for community college students. The program had positive impacts on academic success, and some evidence suggests that the intervention decreased employment, giving students more time to focus on their studies. Results from a similar program in Ohio suggest these programs improve students' performance and increase the number of credits they earn. In some cases, they also appear to reduce student debt. MDRC concludes that preliminary results from these studies suggest that relatively small scholarship amounts could be effective in increasing matriculation among students if the scholarships are well-designed and targeted effectively.⁹¹

In November 2015, the MDRC released a report on all six of the performance-based scholarship Demonstration Projects, which included over 12,000 students and various scholarship program designs. The analysis found that all the programs modestly increased degree completion and that all the scholarships improved academic progress even after the program ended.⁹²

Michigan

The Michigan Tuition Incentive Program was established in 1987 as an incentive to encourage eligible students to complete high school by providing tuition assistance for the first two years of college and beyond. Students must be enrolled in courses that lead to an associate degree or certificate. Additionally, students must meet a Medicaid eligibility history requirement.⁹³

Other State Programs

This list provides a look into only some state need-based grant programs. Other significant programs in Southern states include: Florida's College Reach-Out Program, Kentucky's Governor's Minority Student College Preparation Program, Maryland's College Preparation Intervention Program and the North Carolina Education Lottery Scholarship program. Others can be found in SREB's *High School to College and Careers*.⁹⁴ In addition, New York, Pennsylvania and Vermont have significant need-based aid programs.⁹⁵

Shared Responsibility Financial Aid Programs

Rapidly increasing tuition rates and accompanying rates of student debt have given rise to innovative statewide approaches to financing higher education. One approach is the shared responsibility model in which students, families, the states and institutions all play a role in financing a student's education. Under this model, most families are expected to contribute a certain amount toward the cost of education; students are expected to contribute through work-study and small student loans; the state contributes through grants; and in some cases, institutions contribute. The models states have piloted vary in structure. In most cases, the state provides the "last dollar" amount to make up for any cost discrepancy not already paid by the family, student, federal government and institution. In this model, states determine the total price of attendance and then establish a set amount or percentage for each partner to contribute. After student and family contributions and federal and institutional aid are counted, the state provides the balance of any remaining unmet need.⁹⁶

Minnesota

Minnesota pioneered the shared responsibility model through the Minnesota State Grant program, beginning in 1983. Grant awards are based on the cost of attendance, including tuition, fees, room, board and supplies allowance, the student's financial circumstances and whether the student is enrolled full- or part-time. The Minnesota model is a last-dollar-in program in which students and families contribute first, then Pell Grants are counted and any remaining financial burden is covered through the Minnesota State Grant.⁹⁷

Student contribution amounts have been increasing over time in response to increasing college costs, but since 1998, the family contribution for students attending public institutions has grown faster than family income.⁹⁸ The grant has therefore lost purchasing power over the last 25 years; at the same time, the number of qualified awardees has increased so that the total appropriation for state aid must cover a larger pool of students.⁹⁹ In addition to changes in contribution amounts, significant amendments to the program have impacted the overall approach to financing higher education. The original policy provided at least 67 percent of the combined tuition, fee and state appropriations revenue for both public systems of higher education. However, in fiscal year 2015, Minnesota fell short of its objective, funding only 43 percent of the cost. To fully fund the policy, Minnesota would need approximately an additional \$694 million (or \$1.4 billion over a biennium), a 57 percent increase, for fiscal year 2015.¹⁰⁰

In 2005, a task force examined the program and found a disconnect between the policy stated in the law and actual practice in the appropriation process.¹⁰¹ The legislature sets the value for the student share, but that value has not kept pace with the actual costs facing students. The Minnesota Office of Higher Education conducted a Minnesota State Grant review process throughout the summer of 2008 from which a consistent message emerged: The State Grant program has not fully recognized the actual costs lower-income students face in college. When costs within the program are not fully recognized, lower- and middle-income students pay 100 percent of every dollar left unfunded, demonstrating the state's failure to maintain its portion of the shared responsibility model as originally intended.¹⁰²

Another response to the state grant's inability to keep up with the rising cost of college is a new institutional grant program, furthering the idea of shared responsibility. In 2009, the University of Minnesota renamed its scholarship program the University of Minnesota Promise Scholarship, a need-based scholarship for Minnesota-resident undergraduates with family income up to \$100,000 per year. This program was created to address the shortfall of the grant, especially at higher-cost institutions. However, under the renamed program, the total benefit amount awarded to students was reduced. The former aid program matched Pell Grants to cover tuition and fees, while the new program awards range from \$500 to \$3,500 per year, which may not have covered all of tuition and fees.¹⁰³

Another evolution in Minnesota is the Occupational Scholarship Pilot Program, in effect from fall 2016 through the 2017-18 academic year. The program provides a last-dollar scholarship to cover any tuition and fees not covered by state or federal grant aid for students who seek a credential in designated high-demand program areas. Recipients must have an adjusted gross income of less than \$90,000 per year and enroll within two years of completing high school or passing an equivalency test. Grants are awarded on a first-come, first-serve basis. Scholarship recipients must complete at least 30 hours and have a grade point average of 2.5 or higher during each academic year to maintain eligibility. This pilot program also includes a mentoring component. Mentors are expected to help develop student success plans, connect recipients to on-campus resources, and assist with financial planning. Because the program has a cap on costs, about 1,600 students are expected to benefit.¹⁰⁴

Participation and Outcomes: During fiscal year 2014, \$172.51 million in state grants was awarded to 99,501 students. Of that number, \$24 million was awarded to students from families earning less than \$10,000.¹⁰⁵ A 2015 study examined undergraduates who began postsecondary education in Minnesota in 2002-03 and whether they remained enrolled each year through 2005-06. The study included students who received a federal Pell Grant, a Minnesota State Grant or both, so the results are not a definitive statement about the state grant program alone. The study found

that among low-income aid applicants attending two-year institutions, 54 percent persisted to the second year. Persistence was similar for students who did not receive grants. Persistence rates were better for students attending four-year institutions (both public and private) than for students attending two-year institutions, regardless of family income. Persistence to the fourth year among grant recipients ranged from 72 percent for the low-income group to 81 percent as income increased and for non-grant recipients.¹⁰⁶

Data on financial aid to first-time, full-time undergraduates in Minnesota show that the net price of college for the lowest income students remained stable from 2009 to 2012. For students from families with annual incomes of less than \$30,000, the net price of college declined from \$14,000 in 2008-09 to \$13,800 in 2011-12. Students from families with incomes of \$30,000 to \$75,000 experienced increases in net price of only \$200 during the same time period. These data suggest that the grant program could have had a stabilizing effect, helping insulate low-income students from tuition spikes.¹⁰⁷

Oregon

Oregon adopted the shared responsibility model for its Oregon Opportunity Grant in 2007 and at the same time leveraged the change to nearly double its appropriation to that program in one year.¹⁰⁸ When the original grant program was established in 1971 to assist Oregon's neediest students, the program was underfunded and oversubscribed and therefore many eligible students were not receiving grants.¹⁰⁹ With the 2007 changes, Oregon added family and federal contributions and defined the state's role as filling the remaining gap; OOG is a last-dollar program. To be eligible, students must be Oregon residents, enroll in a community college within six months of graduating from high school or passing a high school equivalency exam, have a high school grade point average of 2.5 or higher, and complete the Free Application for Federal Student Aid (FAFSA).¹¹⁰

The limit for the grant was set at a student and family annual adjusted gross income of \$70,000. The award can be granted for up to four years at full-time enrollment and prorated for half time. Students are required to enroll in an eligible degree or certificate program and maintain satisfactory academic progress as

defined by the school. Grant amounts and student contributions differ based on cost of attendance by sector and enrollment status (full- or part-time). Part of the student contribution is a work requirement based on 90 percent of what a student can earn at minimum wage working 15 hours per week. Another component of the student share is a borrowing expectation based on what a student could reasonably manage in debt repayment if he or she earned a degree in a high-social-value but moderately paid field, specifically education and social work. In 2015, legislators increased funding by 24 percent for the grant. The \$141 million program would serve about 16,000 additional students.¹¹¹

Participation and Outcomes: More than 34,000 students received OOG awards totaling almost \$55 million in the 2013-14 academic year. Grant recipients demonstrate higher university graduation rates (64.1 percent) than those who do not receive the grant (59.6 percent).¹¹² But despite widespread satisfaction with the program, the pressures of the recession led Oregon to modify major elements, reverting to early deadlines and flat grant levels for a smaller pool of eligible students.¹¹³ The state has not been able to sustain funding for the shared responsibility model and particularly for the state share as the last dollar in the calculation. Out of the 155,800 eligible students in 2012-13, only about 21 percent, or 32,924, received the grant. Furthermore, the current flat amount of \$2,000 is not enough for the state contribution to effectively fill the last dollar as envisioned by the shared responsibility model.

In 2013, the state convened a financial aid work group to evaluate the design and allocation of the grant, specifically whether the program was structured adequately for the state to meet its attainment goal.¹¹⁴ The group recommended the grant be restructured to focus on improving access and completion for the most financially needy students, including prioritization of the neediest students and those from underrepresented minorities. An additional recommendation was to pursue other funds for the program to maintain the program's ability to meet the needs of students. A design

team was formed to implement the recommendations of the group. The redesign, if approved, takes effect for the 2016-17 academic year.¹¹⁵

Financial Aid Programs for Part-Time Students and Adult Learners

Besides the mainstream financial aid programs covered above, some states and systems are experimenting with targeted financial aid programs that provide relief specifically to adult or part-time students. In Indiana, the part-time scholarship program requires that students be financially independent of their parents and enrolled in a program of study that will lead to a high-demand, high-wage job. The Tennessee Reconnect Grant provides tuition-free community college for adult students who have already earned some college credit but no credential. The Tennessee grant also limits eligibility to students with an annual adjusted gross income of \$36,000 or less.¹¹⁶

West Virginia

The Higher Education Adult Part-Time Student Grant Program (HEAPS) was created to encourage and enable West Virginia students who demonstrate financial need to continue their postsecondary education on a part-time basis. Grants vary by institution and are based on per-credit-hour tuition and required fees. For students to qualify, they must be state residents, have a high school diploma or equivalent, and demonstrate need as verified through the FAFSA. HEAPS grants can be renewed until program completion or through nine years of enrollment if a student is meeting satisfactory academic progress.

HEAPS grants also have a workforce development component for students who demonstrate financial need and enroll in a postsecondary certificate, industry recognized credential, or other skill development program in a high-demand occupation in West Virginia. Students demonstrating financial need who are enrolled in an approved program may receive up to \$2,000 a year. In 2012-13, 3,976 grants were awarded, amounting to \$4,964,213. When compared with 2009, participation in HEAPS increased by 8.3 percent, and awards increased by 9.8 percent.¹¹⁷

Tuition Programs: Free Community College

Another option states have been exploring to offset the cost of higher education is the elimination of tuition in a specific sector. According to the National Conference of State Legislatures, since 2014, Minnesota, Oregon and Tennessee have created free community college programs, and at least 10 additional states introduced legislation during the 2015-16 session to create programs.¹¹⁸ Unlike the shared responsibility model programs, free community college initiatives do not include an expected student or family contribution, and students are not required to complete a certain number of hours of work or to take out student loans to cover tuition costs. These programs offer free tuition and do not necessarily offer assistance for living expenses. In January 2015, then-President Barack Obama announced his free community college initiative. Statewide free community college programs have been created so recently that little data are available to gauge success at achieving college access and completion goals.

Tennessee

In 2014, Tennessee passed House Bill 2491 to create the Tennessee Promise — a scholarship and mentoring program designed to improve college access and success for recent high school graduates. This program was started to ensure that eligible students receive enough financial aid to cover tuition and fees at public community colleges. Tennessee Promise scholarships are last-dollar grants, meaning students must first use all other sources of financial aid, including federal Pell Grant aid, Tennessee HOPE scholarships, and any other grant aid received through the Tennessee Student Assistant Award program. Promise scholarships meet the remaining tuition costs. Promise scholarship recipients must meet several additional requirements: attend a college orientation session, enroll full-time, maintain continuous enrollment each semester, make satisfactory academic progress (minimum GPA of 2.0), and complete at least eight hours of community service each semester. To fund the Promise program, Tennessee created an endowment fund, with most of the original support from \$300 million of lottery

reserve funds and \$47 million in one-time state general fund dollars.¹¹⁹

Participation and Outcomes: More than 58,000 (roughly 90 percent of high school seniors) completed scholarship applications in the fall of 2014. Recent reports are that 20,000 college freshmen qualified for Tennessee Promise; students signed up for the program in 2016. Enrollment of first-time freshmen increased by 25 percent at community colleges and 20 percent at technical colleges in 2015. In addition to student participation, the state is recruiting at least 9,000 mentors to work with Tennessee Promise applicants.¹²⁰

Oregon

In 2015, the Oregon Legislature passed a resolution to make community college free and created the Oregon Promise. To qualify, students must apply for state and federal aid grants available to them, have lived in Oregon for at least one year, and maintain a grade point average of at least 2.5. They also must enroll in community college within six months of completing their high school diploma or its equivalent. The grant is prorated for persons enrolled at least half time but not full time. The state will pay for what is not covered by grants. Students are responsible for paying a \$50 enrollment fee each term, and room and board is not included in the grant amount. The maximum grant amount is full-time full-year community college tuition less any state or federal grant aid the student receives; the minimum annual grant award is \$1,000 for full-time, full-year enrollment.¹²¹ For the 2016-2017 biennium, Oregon allocated \$10 million each year to fund the Promise program. Because this level of funding will likely not be enough to offer Promise grants to each applicant, the Oregon Higher Education Coordinating Commission has authority to establish a system to prioritize which students receive grants. Specifically, the commission may give priority to students from certain school districts or high schools that meet specific criteria.¹²²

Participation and Outcomes: Because the program does not start until fall 2016-17, little is known about participation and outcomes, but approximately 4,000 to 6,000 students are expected to be served in the first year of the program.

Other Free Tuition Programs

New York and Oklahoma considered free community college legislation; neither state passed the legislation.

- In 2015, New York introduced the Reimbursement for Educational Achievement and Proficiency Act, which would have reimbursed program costs for community college students who are recent New York high school graduates. Eligible students would have been reimbursed for tuition expenses not covered by financial aid. The legislature did not act on the bill.
- The Oklahoma Community College Scholarship Act (HB1733) would have created a last-dollar scholarship to cover tuition at community colleges for recent high school graduates. Recipients would work with mentors, maintain full-time enrollment and meet community service requirements. The measure would have established a trust fund for the program and appropriated 20 percent from the Oklahoma Education Lottery Trust Fund to pay for the program. State Regents' Office personnel estimated the 2016 fiscal year costs would be approximately \$11 million. The bill did not pass.
- Arizona, Indiana, Maryland, Mississippi, Missouri, North Dakota and Texas have also introduced legislation that did not pass.¹²³

Tuition Alternative Plans

In addition to shared responsibility and free community college, states have been experimenting with other tuition policies that aim to reduce costs for students, motivate student performance or both. Tuition freezes leave tuition at the same rate for a certain period of time so students can more accurately plan for their college costs.¹²⁴ Tuition incentive programs reward students for meeting academic goals within a set time period or for enrolling in a minimum number of credits. Another proposal is modeled similarly to the national income-based repayment loan program: the state would pay for tuition costs up front and the student would pay back tuition after graduation. Many institutions are attempting these strategies independently, but this section examines statewide approaches.¹²⁵

15-to-Finish Tuition Incentive Plans

Recent research has shown that students who take and pass at least 15 credits each semester are more likely to graduate. However, financial aid historically pays only for students to take a course load of 12 units per semester. If a student enrolls in only 12 credits per semester (and does not attend in the summer, when federal financial aid is no longer available), a 60-credit associate degree will take five semesters (2.5 years) to complete, and a bachelor's degree will take 10 semesters (5 years) to complete. In recognition of the importance of on-time completion, institutions, states and higher education advocacy groups suggest redefining full-time as 15 credits per semester as a crucial strategy for improving college completion rates.¹²⁶

The University of Hawaii system developed the 15-to-Finish model, which has served as an example for other states. Hawaii implemented a banded tuition model across its four-year colleges and universities, in which taking 15 credits per semester cost no more than taking 12 credits per semester. Currently 15 states, including five in the SREB region, are trying some variation of the 15-to-finish model. Not all of the states are linking economic benefits to the increased credit load. Some examples:

- Oklahoma University offers a flat-tuition rate that allows students to take a full course load of 15 credits per semester affordably.
- The B-on-Time program in Texas offers complete loan forgiveness to students who complete a bachelor's degree in four years with at least a B average.
- The West Virginia Promise program is a merit-based financial aid program with a credit load minimum. To retain grant eligibility, students must earn 30 credit hours over each 12-month period of enrollment.
- Indiana students are required to complete 24 credits annually for their aid to be renewed. Students who complete 30 credits or more will receive up to an additional \$600 a year in aid at public colleges and \$1,100 more at private universities and colleges. The state recently increased the incentive structure. Starting in 2015-16, students who complete 39 credit hours by the end

of the first year or 78 credit hours by the end of the second year began receiving a \$1,300 bonus.¹²⁷

Participation and Outcomes: Data on the whether these programs result in better student outcomes are emerging. Hawaii pioneered research on the 15-credit model and found that college students who complete at least 15 credits per semester are more likely to graduate on time, perform better academically and save money on their college degrees. Since implementing the model, the University of Hawaii system has seen notable increases in the number of students who take at least 15 credits per semester, and retention rates are 22 percent higher for incoming freshmen in this group. In West Virginia, the proportion of West Virginia Promise aid recipients who graduate within six years has increased to 70 percent, compared to the average for all students in West Virginia of less than 48 percent.¹²⁸

Texas

Texas' undergraduate tuition rebate program provides a \$1,000 financial incentive for students to complete a bachelor's degree efficiently, taking as few nonessential courses as possible. Minimizing the number of courses a student takes should save money for students, families and the state. To qualify, students must attend a public university in Texas, have attempted no more than three semester credit hours over the minimum number of hours required for their degrees, and must graduate within four calendar years from a four-year degree program or within five calendar years from a program recognized by the Texas Higher Education Coordinating Board.¹²⁹

Oregon

Pay it Forward, Pay it Back in Oregon is based in part on Australia's Pay-It-Forward concept. The idea is that the state initially pays the price for college, and a student repays this debt for 20 to 25 years after graduation based on a percentage of his or her income. As students repay the debt, the money is used to fund tuition for the next generation of students. Students would be required to pay the state based on length of program and income level. A student who is seeking a two-year degree would pay 1.5 percent of his or her income per year, while a student seeking a four-year degree would pay 3 percent

of his or her income. Oregon originally passed legislation in 2013 to fund a pilot project for consideration by the 2015 legislature. A significant issue with this model is funding for the start-up costs; these are estimated at \$9 billion, and the initial students who attend tuition-free would be years away from entering the labor force. The program would become self-funding around the 20-year mark.

In 2015, the legislature decided that the plan required further study. The amended version calls for the Higher Education Coordinating Commission to build on the pilot program proposal it presented to the Legislature in fall 2014, come up with a framework and price tag, and report back to lawmakers in 2016 and 2017. The bill has yet to be passed.¹³⁰

Other states have also explored the pay-it-forward concept.

- Florida: An unsuccessful bill in 2014 would have allowed the Board of Governors of the State University System to establish a pilot program to create a system under which a person who is accepted to attend an institution of higher learning may forgo paying tuition and fees under certain conditions.
- Louisiana: HCR 21, introduced in 2014, would have called for a study of the feasibility of implementing a pay-it-forward program and report findings and recommended legislation to the House and Senate Education Committees.
- Maryland: HB 0853, introduced in 2014, would have required the Board of Regents of the University System of Maryland to study the feasibility of a potential pay-it-forward program. This included an analysis of the Western Tuition Promise (Western Oregon University) and the Finish in Four (proposed in Florida) programs.
- Oklahoma: SB 2001, introduced in 2014, would have authorized the Oklahoma State Regents for Higher Education to consider implementation of a pay-it-forward pilot program.
- South Carolina: H 4414, introduced in 2014, would have allowed the Commission on Higher Education to establish the Palmetto Pay Forward, Pay Back Pilot Program.

- Virginia: HJ 72, introduced in 2014, requested the State Council of Higher Education for Virginia to study the feasibility of a Pay It Forward, Pay It Back pilot program. This included considering the advantages and disadvantages to students, institutions and Virginia; the costs of establishing and administering the pilot; the contract terms between a student and the state or institution; and any other related matters.

Other states that have introduced pay-it-forward bills are: California, Connecticut, Hawaii, Indiana, Iowa, Maine, Massachusetts, Michigan, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Rhode Island, Vermont and Washington.¹³¹

Savings Programs and Other Mechanisms

Numerous states offer college savings plans, which give tax incentives for families to save for college in advance. These programs vary widely by state and usually do not include any matching funds from the state. One program stands out as being different and targeted specifically to low-income families. Arizona's AZ Earn to Learn (AZEL) program prepares high school students for college with financial education and matching funds. The program creates matched savings accounts, which are designed to help families and individuals of modest means establish a pattern

of regular saving for college. The AZEL program will offer an 8:1 savings match, meaning that for every dollar saved as part of the program, the student will then be eligible to receive another eight dollars. Match money for the program comes from Arizona State University, Northern Arizona University, the University of Arizona and the federal government. Requirements for the program include income below 200 percent of the federal poverty level.¹³²

Another approach to directly reducing costs to students is being explored in Georgia. Affordable Learning Georgia seeks to make education more affordable by replacing commercial learning materials, such as textbooks, with no-cost-to-student alternatives. The program supports open educational resource (OER) adoption, adaptation, and creation and use of materials in the GALILEO virtual library and University System of Georgia (USG) libraries. OER textbook replacement has been found to increase both retention and completion rates. Affordable Learning Georgia focuses on the top 50 USG lower-division core courses. These courses are the fundamental building blocks of a college education. Providing no-cost-access to learning materials helps ensure student retention and course completion and helps students stay on track for degree completion. Through adoptions and adaptations of OERs, USG asserts that students saved an estimated \$1 million in the 2013-14 academic year.¹³³

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