

AMERICA'S COLLEGE PROMISE PLAYBOOK

Expanding the Promise of a College Education
and Economic Opportunity for All Students





The U.S. Department of Education does not mandate or prescribe practices, models, or other activities in this Playbook. This Playbook contains examples of, adaptations of, and links to resources created and maintained by other public and private organizations. This information, informed by research and gathered in part from practitioners, is provided for the reader's convenience and is included here to offer examples of the many resources that educators, parents, advocates, administrators, and other concerned parties may find helpful and use at their discretion. The U.S. Department of Education does not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of links to items and examples do not reflect their importance, nor are they intended to represent or be an endorsement by the U.S. Department of Education of any views expressed, or materials provided.

U.S. Department of Education

John King
Secretary

Office of the Under Secretary

Ted Mitchell
Under Secretary

October 2016

This report is in the public domain. Authorization to reproduce it in whole or in part is granted. While permission to reprint this publication is not necessary, the citation should be U.S. Department of Education, Office of the Under Secretary, America's College Promise Playbook, Washington, D.C., 2016.

This report is available at <http://www2.ed.gov/documents/press-releases/college-promise-playbook.pdf>.

On request, this publication is available in alternate formats, such as Braille, large print or computer diskette. For more information, contact the Department's Alternate Format Center at 202-260-0852 or by contacting the 504 coordinator via email at OM_eeos@ed.gov.

Notice to Limited English Proficient Persons

If you have difficulty understanding English you may request language assistance services free of charge for Department information that is available to the public. If you need more information about these interpretation or translation services, please call 1-800-USA-LEARN (1-800-872-5327), TTY: 1-800-437-0833), or e-mail us at ed.language.assistance@ed.gov

Or write to
U.S. Department of Education
Information Resource Center
LBJ Education Building
400 Maryland Ave. SW





Contents

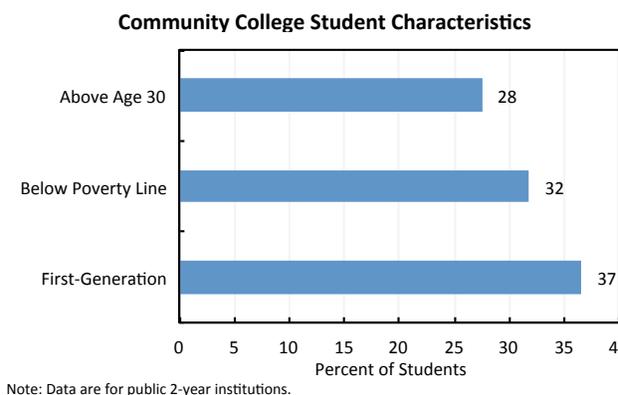
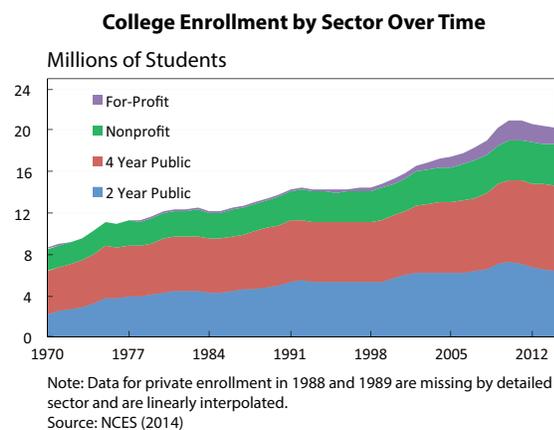
- Background 1**
- Purpose of the College Promise Playbook 2**
- Key Steps in Launching a Promise Program 3**
 - 1. Identify Community Needs and Opportunities 3
 - 2. Build a Team and Develop Partnerships to Strengthen Education Quality 4
 - 3. Design a High-Quality Program That Serves Both Community and Student Needs 6
 - 4. Develop a Sustainable Funding Model 11
 - 5. Evaluate and Assess Program Effectiveness to Learn What Works in Order to Promote Continuous Improvement. 13
- Free Community College Cases and Models 14**
- Employer-Community College Partnership Cases and Models 23**
- Endnotes 24**

Background

Completing higher education can provide lasting invaluable benefits to society and students. Decades of research have shown the benefits of higher education in greater labor market earnings, health, and happiness. The jobs of the future will require higher skill levels. Over the next decade, jobs requiring some level of higher education are expected to grow more rapidly than those that do not, with 11 of the 15 fastest-growing occupations requiring a postsecondary education. Today, more than ever, Americans need the knowledge and skills to meet the demands of a growing global economy and serve their communities without having to take on decades of debt before embarking on a career.

America's more than 1,300 community colleges² have the unique capacity to serve these needs. They provide over 40 percent of undergraduates (roughly 7 million people) with opportunities to deepen their knowledge, become more informed citizens, and earn quality, affordable degrees or credentials that prepare them for the demands of a competitive global economy. According to one recent study, community college graduates, regardless of age, have an easier time finding a job and make an average of \$10,000 more a year than those with just a high school diploma.³

Community college students reflect America's diverse population, including many older, low- or moderate-income, racial and ethnic minority, first-generation, and rural Americans, which are some of the fastest growing segments of the population.



That's why President Obama unveiled his America's College Promise (ACP) plan in January 2015 to make two years of community college free for responsible students, letting them earn the first half of a bachelor's degree and learn the skills needed to succeed in the workforce at no cost. As a first-dollar scholarship, the president's ACP plan would bring in federal and state investments to cover tuition and fees. This would allow students to apply any additional federal, state, institutional, and private financial aid to cover the remaining costs of attendance, including academic supplies, transportation, room and board, and child care.⁴

In the fewer than two years since the president challenged more states and communities to make America's College Promise a reality for their students, at least 30 free community college programs—also known as "Promise" programs—have launched in states, cities, and community colleges in all corners of the United States. The total estimated number of Promise programs



across the country has increased to more than 150. Altogether, since 2009, these new programs have added more than \$70 million in public and private investments in community colleges to serve at least 40,000 students, and the number of free community college programs continues to grow.⁵

These new, free community college programs build on the Obama administration's record of investing in students and the local economy. The administration has invested more than \$70 billion in support of community colleges, including over \$66 billion for more than 19 million Pell Grants to help students and families pay for college. It also invested \$2 billion at nearly half of the nation's community colleges in Job-Driven Training Community College Grants that seek to strengthen education and training programs that lead to in-demand employment and provide a ticket to the middle class. These funds build upon the \$1.6 billion in programs authorized under *Title III* and *Title V* of the *Higher Education Act (HEA)* to strengthen the capacity of all institutions (including Historically Black Colleges and Universities and minority-serving institutions) to provide students an affordable, high-quality education. These critical investments have helped transform the role of community colleges as leading providers of high-quality, affordable pathways for obtaining the skills and knowledge sought by employers.⁶

The terms “free” and “college promise” can relay the simple, powerful, and clear message to students that college is available and affordable to them if they work hard. School and policy leaders have noted that in communities with free community college programs, many students' and families' questions about college have shifted from “*Is college possible?*” to “*Which college is right for my goals?*” Evidence suggests that the most common decision students make about college is whether or not to attend.⁷ Community colleges offer an affordable education for many students who may have otherwise not attended college or who may have chosen to attend a more expensive or lower-quality college. Overall, the data show that Promise programs are making a positive impact. Studies of free community college and scholarship programs show that they have increased students' access to financial aid, as well as rates of high school graduation, college enrollment, and college graduation, particularly for low-income and first-generation students.⁸

Purpose of the College Promise Playbook

The effectiveness of future programs and their designs highly depend on access to reliable evidence and best practices. The purpose of this College Promise Playbook is to connect practitioners with relevant and actionable information that will allow them to offer more students access to an affordable, high-quality education. This will help students go as far as their talents, work ethic, and dreams can take them. Communities can use this playbook to develop programs that 1) expand college access for hard-working students through tuition-free community college; 2) strengthen and reform the community college experience to promote gains in student enrollment, persistence, completion and/or transfer to a four-year institution, and employment; and 3) prepare students for continued education and/or high-demand, middle-class jobs. This playbook provides program design elements from ACP and other common features of free community college programs that communities can adopt and personalize.

Key Steps in Launching a Promise Program

Communities have identified the following key steps that enabled them to develop and launch free community college programs:

1. Identify community needs and opportunities.
2. Build a team and develop partnerships to strengthen education quality.
3. Design a high-quality program that serves both community and student needs.
4. Develop a sustainable funding model.
5. Evaluate and assess program effectiveness to learn what works in order to promote continuous improvement.

1. Identify Community Needs and Opportunities

Today, 90 percent of the population lives within 25 miles of a community college.⁹ Successful Promise programs tend to demonstrate the effective use of grass-roots and community-led efforts to design tailored programs that meet the specific needs and strengths of their communities and students. While programs may have design variations, such as in target population, academic eligibility criteria, or scholarship length, many share a common vision of increasing education access and success for students. This common vision can boost economic development and strengthen local communities.

For students and adults alike, particularly those who might not otherwise have considered higher education, these programs can foster a college-going culture. Students learn, especially early in their education, that support will be available for them to pursue higher education. When students and families have an early understanding that college is possible, they can better prepare academically and financially. When students orient their expectations towards college, they have more time to explore the resources and information available to ensure that they find a good-value college where they can succeed if they work hard.

Expanding access to community colleges also may benefit the local community by providing an alternative to more expensive or lower-quality schools. Although for-profit institutions often offer similar degree programs, on average, students at community colleges tend to have better employment outcomes, lower rates of student loan defaults, and higher rates of satisfaction with their courses.¹⁰ In particular, students receiving certificates from for-profit institutions generally pay higher costs for attendance but earn less than their counterparts who attended community college.¹¹ Some students who would otherwise attend a for-profit school might instead attend a community college and see better outcomes as a result. It is important to note that free community college is not expected to significantly draw students away from four-year institutions, especially when students are encouraged to attend the school most suitable for them and when they have tools, like the College Scorecard, to inform their college choice. In fact, one study in Texas showed that lower community college tuition did not impact enrollment at public four-year universities, but instead increased transfers from community colleges to universities, as well as the probability of earning a bachelor's degree.¹²

Increased numbers of students accessing a college education and earning their degrees and credentials locally can strengthen a community's workforce and increase demand for local

goods and services, as well as investments in local infrastructure. Whether by promoting free college to students who might not otherwise enroll or by engaging community members in planning and implementation, these programs expand a sense of inclusivity within the community. Studies show that Promise programs, particularly those offering pathways to bachelor's degrees, can be a key way of supporting local economic development and have increased the number of people staying in their communities.¹³

2. Build a Team and Develop Partnerships to Strengthen Education Quality

Funding alone will not address every need; many entities play a role in improving student success.

- **Policy makers** at all levels of government (e.g., federal, state, and local) can provide resources to support students' progress towards graduation, and facilitate coordination between schools and communities.
- **Schools, colleges, and universities** can provide a rigorous academic experience, as well as support to ensure that students are expanding their knowledge and skill sets and are able to make informed college decisions. Partnerships among K–12 schools, community colleges, and four-year colleges are critical to ensuring that students are well-prepared and that credits transfer among institutions.
- **Employers** can invest in the knowledge and skills of their future employees by sharing facilities and resources; offering professional opportunities to supplement students' academic experiences; and supporting course design to ensure the curriculum is relevant to students' career goals.
- **Community-based organizations** can promote college access and success by providing advising, counseling, and other resources to students and families.
- **Foundations and investors** can make the investments needed to strengthen college readiness, student outcomes, and college performance, among other factors that drive success in education.
- **Students** can work hard and take full advantage of their educational opportunities.

Community colleges serve students in various stages of their education and careers, which reinforces the importance of having strong partnerships across K–12 schools, higher education institutions, and employers:

- **Community college preparation:** Community colleges may be the first to open the doors to college for students as they provide over 70 percent of all dual-enrollment courses.¹⁴ Dual enrollment, early-college high schools, and other college-credit programs, have consistently increased student achievement. Participating students have better grades, higher college enrollment rates, and increased college completion rates than non-participants.¹⁵ Community colleges provide these opportunities at lower costs than other institutions.
- **College transfer opportunities:** Charging an average of \$3,000 per year for tuition and fees, community colleges may be an attractive starting point for students who want an affordable pathway to a bachelor's degree.¹⁶ Over 80 percent of community

college students say that they intend to transfer to another institution to complete a four-year degree.¹⁷ Promise programs would make community college tuition free for students. Community colleges award roughly two-thirds of all associate degrees and account for over 40 percent of undergraduate enrollment.¹⁹ When they provide high-quality academic experiences and have robust transfer and articulation agreements, community colleges can ensure students are accessing a rigorous education to prepare them to reach their education and career goals.

- **Career pathways:** Community colleges are uniquely positioned to partner with employers to create training programs that are relevant to the economic needs of their communities or to assist older workers who need new skills. Most states are implementing sectoral training strategies based on partnerships between government, education, workforce groups, and employers, among others, to focus on regional labor market needs.¹⁹ These strategies often address knowledge and skills gaps and align state and local employment programs and resources. Community colleges play a central role in their success.

With the vast number of students that community colleges serve at different levels and their central role in any community, it is increasingly important to ensure that community colleges provide opportunities for students to succeed if they work hard. Through stronger partnerships and new resources, community colleges can not only open more doors for college access but also enhance students' pathways towards graduation and employment.

- **College staff support for student success:** Students are more likely to make academic progress and complete college if they receive support obtaining financial aid, explore and have early exposure to possible professions, choose a program of study, and develop an academic plan based on program maps created by faculty, employers, and advisors.
- **Structured academic pathways:** Studies show that clearer academic structures for degree requirements and credit accumulation, coupled with early enrollment in a program of study, can lead to higher rates of completion. Preliminary results from colleges that have implemented guided pathways reforms are encouraging. They show that students are more likely to earn their degrees if they are able to identify a road map of the courses they need to take, receive advising and support along the way, and have the opportunity to learn in rigorous courses relevant to their career and education goals.²⁰ This vision often requires faculty to be at the center of sustained, college-wide efforts to improve student success.²¹
- **Comprehensive student supports:** Studies show that programs, including well-structured student support services and resources; tuition waivers; academic, financial, and career advising; and transportation and textbook subsidies, have together more than doubled students' likelihood of earning a college degree. In the City University of New York's Accelerated Study in Associate Programs (CUNY ASAP), these reforms were made possible with a \$5,500 increase in per-student expenditure. Over a few years and with experience, the program was able to reduce the additional per-student expenditure to only \$3,700 while continuing to achieve high student outcomes.²²
- **Stronger or new partnerships for funding and resources:** Community colleges often face challenges in increasing their funding and resources in order to implement the types

of reforms that strengthen their academic programs and increase student success. While selective four-year schools enroll one low-income student for every 14 high-income students, community colleges enroll two low-income students for every high-income student.²³ However, community colleges receive less revenue per full-time-equivalent student than institutions in any of the other sectors.²⁴ Unlike four-year institutions (that have access to private gifts, investment income, and endowment earnings), community colleges have less flexibility to increase tuition to cover the costs of educating students, and they tend to charge far lower tuition. Offering educational programs in high-demand fields—such as information technology, data analytics, health care, and manufacturing—often requires up-front and regular investments. Funds must be provided for up-to-date equipment and supplies, curriculum design, and highly skilled instructors and instructor training. This can be a challenge for underfunded community colleges. Employers can help fill this gap, since local businesses have experts, equipment, resources, and training facilities that can be shared with community colleges to make curricula more rigorous and relevant.²⁵ Community college programs can be high-quality and effective when stakeholders—from K–12 schools to policymakers to foundations to community residents—come together to invest time, energy, and resources into the educational opportunities that can enrich their communities and economies.²⁶

3. Design a High-Quality Program That Serves Both Community and Student Needs

The driving motivation behind free community college programs is often to expand college access and completion as universally as possible to hard-working students. However, most stakeholders implementing these programs face real financial constraints and need to incorporate program design provisions that enable limited resources to create the best outcomes for students. Design features can promote better outcomes by creating positive incentives for students, directing dollars to those most in need, and funding programs that demonstrate a commitment to high-quality education. Still, every beneficial design feature has associated trade-offs, and the specific provisions included in a program are likely to depend on community needs and constraints.

Many of the program design features shown below are included in ACP and most of the recently announced Promise programs. Those interested in developing community college programs and policies are encouraged to consider integrating these features and adapting them to fit the needs of their communities. Programs that maintain a simple and transparent face to students and families are likely to have the greatest positive impact on students' college preparation and understanding of financial aid.²⁷

Student Eligibility May Include These Provisions:

- Prioritize eligibility for recent high school graduates or focus on adult learners based on community needs and program capacity.

About 60 percent of community college students enroll within one year of graduating from high school.²⁸ Research shows that students with less time between high school graduation and college enrollment are more likely to complete college.²⁹ Programs may consider building in eligibility requirements—such as being a recent high school

graduate—to encourage students to complete high school and reduce the time between high school and college. However, it is important to note that the average community college student is 28 years old, and while many adult learners attend community colleges, there has been an upsurge in those who attend for-profit institutions.³⁰ To ensure that programs do not exclude adult learners who may stand to benefit from participation, programs may wish to include provisions to encourage enrollment or develop more tailored programs for adult learners who want to up-skill, return to school to complete degrees, and/or earn their degrees while working.

- Provide two years of eligibility in the program. Encourage students to enroll full-time or half-time, at minimum, and accumulate the credits needed to graduate on time.

Research shows that enrollment intensity (i.e., a course load of more rather than fewer credits) can be one of the greatest predictors of on-time completion. Today, most community college students enroll part-time in order to ensure they can continue to work and fulfill other personal responsibilities.³¹ While programs should be designed to be responsive to students' needs, they should also be sure to support degree completion.

Research shows that enrolling full time, which is often defined as 12 credits, can increase credit accumulation and transfer rates.³² Note that if students enroll in 12 credits each semester, it would take them about two and a half years to complete the standard 60 credits for an associate degree. Communities can consider providing two-year scholarships, which may set a higher expectation to complete on time and encourage students to accumulate more credits in order to do so. If programs have the resources, they could extend scholarships for three years to provide more flexibility to students, particularly if the majority of students enroll part-time.

A study shows that students who enroll with 15 credits are more likely to complete the standard 60- credit associate degree on time, particularly if they maintain momentum on credit accumulation throughout their first year.³³ One strategy for doing this, if resources allow, can be to provide more scholarship dollars for enrolling in more credits. Designs to accelerate progress towards completion can ensure more students succeed while optimizing programs' limited resources, especially when research does not confidently show that enrolling in school longer increases the likelihood of completing. By offering greater financial support and stronger student supports, like career advising and child care, programs can relieve—rather than add more—financial burden for students who want to take more credits to complete their degrees faster.

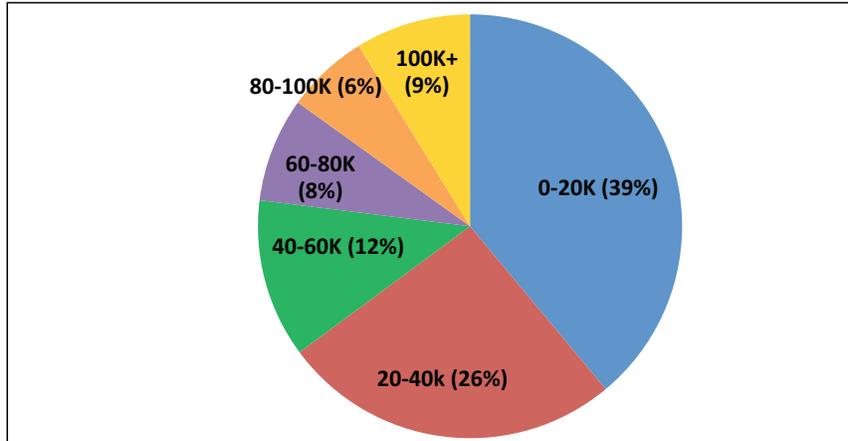
- Require a minimum college GPA. The ACP proposal would designate a 2.5 minimum GPA. Programs can set GPA requirements based on community needs and available resources.

To remain eligible for financial aid, many colleges require students to maintain at least a 2.0 GPA to meet satisfactory academic progress after two years.³⁴ Research shows that scholarships designed to help students with their expenses and encourage good academic progress—by requiring them to earn a minimum GPA—increases the likelihood of credit accumulation, academic progress, persistence, and completion.³⁵ Importantly, studies also show that students are less likely to maintain their GPAs in their final year of college when GPAs are not relevant in determining future financial aid eligibility. This suggests that students are motivated to work harder when programs provide an academic bar.³⁶ Programs can consider how many students would still

remain eligible with the GPA requirement. About 70 percent of current community college students would still remain eligible for programs that aim to set a higher academic standard at a 2.5 GPA, for example.³⁷ To ensure students are properly supported when programs set higher academic bars, community colleges can prepare professors and counselors to provide the academic supports needed for a rigorous and supportive learning experience for hard-working students.

- Set an income threshold for student eligibility to ensure programs are serving the greatest needs in the community, and provide support to encourage FAFSA completion. *These actions would ensure that investments are devoted towards the students who need them the most. Communities can consider adjusting the income threshold based on the financial needs of their citizens and the resources available. ACP, for instance, includes a \$200,000 income threshold, which covers 99 percent of community college students.*³⁸

Share of Community College Attendees by Adjusted Gross Income (AGI)



Source: NPSAS 2012

Promoting the completion of the Free Application for Federal Student Aid (FAFSA), which is lowest at community colleges, could help students access more aid. About 40 percent of community college students do not apply for the FAFSA, even though they are likely to be eligible for financial aid.³⁹ To ensure that FAFSA completion is not a barrier for students, increasing counselor outreach and involvement on this topic can significantly increase FAFSA completion and college enrollment. The most common reason for FAFSA non-completion is that students did not think they were eligible for aid, rather than that the form was overly complicated.⁴⁰ Particularly for the community college student population, completing the FAFSA can open doors to federal, state, institutional, and private financial aid that can cover any unmet education needs and expenses, such as academic supplies, living costs, and transportation.

Community college programs that require FAFSA completion have increased the likelihood that students have access to financial aid for college. Tennessee, for instance, requires FAFSA completion as an eligibility requirement and has achieved the highest yearly increases in FAFSA completion of any state, as well as one of the highest FAFSA completion rates in the country.

- Encourage community service or part-time work that complements students' academic experiences.

Currently, over two-thirds of community college students work while enrolled in school, and the average working student works 31 hours per week.⁴¹ Research suggests that some part-time work experience and/or community service that supplements a student's academic program can be beneficial. Students with relevant work experience often earn more after leaving college, make more professional connections, and develop necessary soft skills.⁴² However, those developing programs should ensure that work experiences and community service options add to—not detract from—students' learning experiences. Some research suggests that when students work more than 15–20 hours a week, they often experience slower academic progress.⁴³ This is especially true for students trying to balance a full academic course load, which may put on-time completion at risk.⁴⁴ One of the benefits of free community college is reducing students' financial obligations so that there are minimal distractions to learning. This is supported by research, which shows that grant aid reduces the time spent working, allowing students to take more credits and make more rapid progress towards completion.⁴⁵

College and Program Eligibility Can Include These Requirements:

- Be accredited community and technical colleges that participate in the *Title IV, HEA*-authorized programs. When relevant to community needs, programs can consider expanding eligibility to four-year institutions that have proven track records of beneficially serving large populations of students with traditionally low college participation, as ACP does.
- Be either a high-quality program that offers students a chance to earn half of the credits they need for a bachelor's degree, or be an occupational training program with high graduation rates and good employment outcomes.

Studies show that when students make progress in their specific programs within their first two years of enrollment—such as passing three courses early in their college career—they have an increased likelihood of degree completion or transfer increase. Other studies show that students who earned at least eight college credits in their particular program within the first year were significantly more likely to earn a credential and transfer earlier.⁴⁶

- Reform remediation and reduce barriers to enrolling in college-level credit courses.

Nearly two out of three community college students were identified as needing additional college preparation, through remedial or developmental math or English courses, before taking college-level courses.⁴⁷ Remediation is even more common among older, lower-income, and minority students.⁴⁸ Despite the high prevalence of remedial courses, they can be expensive, ineffective, and slow students' progress towards completion.⁴⁹

Sometimes, programs can mistakenly require remediation courses for students who do not need them. To identify students who need remediation more accurately, Long Beach City College used multiple measures—such as high school GPA, in combination with standardized assessments—taking into consideration students' academic and career goals.⁵⁰ For students who do need remediation, they are more likely to accumulate more credits and earn a degree or certificate when the remedial courses are relevant to their other (subsequent) courses and education and career interests.⁵¹ To ensure students

do not fall behind from taking remedial courses, schools can adopt paired courses, compressed sequences, and/or corequisite support courses.⁵²

Stronger partnerships between preschool–12 and higher education systems can ensure that more students are prepared to succeed in college. Overall, college preparation and a robust preschool–12 education can be the most effective strategies to reduce remediation. Research consistently shows that enrolling students in college-level courses during high school has significantly increased college-readiness.⁵³

- Support articulation agreements with four-year public institutions of higher education to allow the full transfer of credits. This will cut down on the need for redundant courses and help students who transfer to a four-year institution graduate on time.

Although most community college students intend to transfer to a four-year school, fewer than one in five transfer to a four-year college and earn a bachelor's degree within six years.⁵⁴ This low figure is largely explained by the high prevalence of credit loss when transferring from a community college to a four-year institution. In 2012, only 56 percent of bachelor's degree recipients who studied at a community college saw all of their credits transfer.⁵⁵ Greater losses of credit during transfer translate into longer time to completion and lower chances of ultimately earning a bachelor's degree.⁵⁶ The odds of earning a bachelor's degree are higher when students first earn an associate degree.⁵⁷ While the majority of states have policies to transfer core general education courses and guaranteed admissions policies, college officials must ensure that those policies are implemented. One way to do so is to increase the use of common course numbering between community colleges and four-year colleges.⁵⁸ Advisors who are helping community college students select a four-year school can 1) create transfer program maps that clearly show course sequences, prerequisites, and other requirements needed for transfer; and 2) share basic information about different schools' costs, graduation rates, graduate earnings, and repayment rates—which are all available on the [College Scorecard](#)—so that students can pursue a rigorous education and relevant degree.⁵⁹

- Provide evidence-based support services, such as mentorships, course advising, and career counseling, particularly for non-traditional, academically underprepared, and limited English proficient students.

Students are more likely to succeed when they are well supported and have clear direction on the pathway to degree completion. Wraparound supports and clear academic requirements, such as CUNY's ASAP model, can include comprehensive academic, financial, and career advising; clear messages to students that they should expect to graduate on time and take any necessary developmental courses early; and scholarships that cover tuition and transportation. CUNY also provides times and modes of delivery that are more responsive to student needs. These include hosting weekend advising or creating networks of students with whom they often engage. More than doubling the likelihood of graduation, this program is among the most successful reform strategies to increase student success and college performance.⁶⁰

Other efforts at LaGuardia and Cuyahoga community colleges show that connecting students to public benefits, as well as better access to food, health care, and housing, can increase retention and completion.⁶¹ Research also affirms that student support from mentors, whether older individuals or peers, plays an important role in helping students feel socially and academically integrated. A study of Tennessee Promise

showed how mentoring coupled with last-dollar scholarship money increased the likelihood of college enrollment by 500 percent. Mentors can also increase students' persistence, promoting degree completion.⁶²

- Build partnerships with employers, who can provide financial and academic resources or learning opportunities—such as equipment and instructors—in the program. They can also give feedback to ensure curricula are career-relevant, offer internship opportunities, and hire program graduates.

Evidence shows that when schools, employers and workforce groups work together, they can all benefit. Sectoral training strategies—which include partnerships of schools, workforce systems, and employers— can provide more relevant and better integrated education and training, student supports, and job placement assistance. Evaluations of these sectoral strategies have found significantly higher earnings and employment rates, and more desirable work hours for participants.⁶³ Relevant employer involvement with a curriculum can be beneficial for students. One study suggests that when employers help with course design and delivery, graduates are more likely to find a job that corresponds well with their college degree.⁶⁴ Other surveys and studies show that education and employer partnerships have increased productivity, reduced turnover, and increased customer satisfaction.⁶⁵

4. Develop a Sustainable Funding Model

First-Dollar or Last-Dollar Scholarship

- The financial impact of free community college programs is largely determined by whether additional financial aid is provided before or after students use the existing aid for which they are eligible. A first-dollar program, like the president's ACP plan, covers tuition and fees before students use up their financial aid, allowing students to shift any additional aid they receive to cover other remaining education expenses, which often represent the greatest bulk of cost of attendance. A last-dollar program, alternatively, covers the unmet need on students' tuition and fees to reduce the amount owed to zero.
- While the average community college tuition and fees is around \$3,000 per year, other education expenses make up more of students' and families' college costs. With academic supplies and living costs included, some sources estimate the full yearly cost of attendance to surpass \$10,000.⁶⁶ In 2011–12, the estimated yearly cost that the typical student and family would need to cover out of pocket was over \$8,000.⁶⁷ The Pell Grant can be used to cover any costs associated with attending college. Although the maximum Pell Grant has increased by over \$1,000 since 2008, it only covers about 60 percent of the cost of attending community college, whereas decades earlier it covered those costs entirely.⁶⁸
- First-dollar programs will be able to leverage and invest more and new dollars in community colleges to address the neediest students' cost barriers while also providing the funding needed to implement reforms to increase student success. Programs may be able to serve more students, however, through last-dollar scholarships, if financial resources are scarce, and may be able to point to research showing that even a few hundred dollars' worth of scholarships can increase college enrollment and completion. In some cases, last-dollar scholarships may be able to cover all eligible students. Those designing Promise programs need to weigh the depth versus the scale of impact given the resources available.

Sample Financing Mechanisms

- For most of the free community college programs that were announced and modeled after the president’s ACP plan, the annual costs were estimated to be less than \$3,000 per student.
- While state community college programs are funded through various mechanisms—from state appropriations to budget allocations to private donations—generally, appropriations play an important role in their financing. Conversely, local donations commonly fund regional and institutional programs. To hedge against any risk in year-to-year budget fluctuations, some programs have established endowments, which can support more long-term financial planning.
- Tennessee, one of the earliest statewide, free community college programs, established an endowment through net lottery proceeds, budget reallocations, and state funding.
- Chicago, the first citywide free community college program, secured \$10 million in funding by reallocating program funding within its budget.

Examples of Promise Programs, by Annual Total Cost, Number of Students Served, Per-Student Cost, and Type of Financing

	Promise Program	Annual Program Cost (\$ Millions)	Students Served Annually	Annual Cost per Student (\$ Dollars)	Financing Type
State	Tennessee	15.0	16,000	938	State funding, primarily from net lottery proceeds and budget reallocations
	Oregon	10.0	10,000	100	State funding
	Minnesota	8.5	1,600	5,313	State funding
Local	Chicago Promise	2.0	3,000	667	Budget reallocation from cuts and consolidation
	Garrett County Scholarship	0.4	162	1,271	County
	Oakland Promise	35.0	20,000	1,750	Donors
Community College	Community College of Philadelphia	0.2	440	450	Donors
	Gateway Promise	0.7	1,700	412	Business investment
	Harper College	0.6	220	2,727	Donors

5. Evaluate and Assess Program Effectiveness to Learn What Works for Continuous Improvement

Building a feedback loop can help ensure that Promise programs continue to improve to help students access an affordable college education and graduate more students prepared to pursue careers and any additional education goals. Program evaluation and assessment can assist in determining whether the programs are addressing identified community needs and inform any necessary design adjustments. Strong research designs and partnerships with academic researchers can help communities build evidence on what works to help sustain these programs, identify best practices to inform other communities' program designs, and scale what works. Assessments and evaluations should also ensure that programs are serving all students, particularly those who have been historically marginalized; therefore, evaluators may consider disaggregating results by groups of students, such as by income, age, race, ethnicity, and family background.

Designers of programs' evaluations and assessments can consider the following questions, including disaggregation by sub-groups:

Student Outcomes-Related

- Are more students graduating from high school college-ready and enrolling in college?
- Where are students enrolling in college? How do programs affect enrollment patterns at both community colleges and four-year colleges?
- Are more students completing the FAFSA and accessing the financial aid for which they are eligible?
- Are fewer students taking remedial classes in college?
- Are more students placed in developmental education accelerating through those requirements?
- During college, are more students able to supplement their learning by participating in related extracurricular activities, internships, or other experiences?
- During college, are more students able to access the supports and resources necessary to focus on academics?
- During college, are students accumulating more credits?
- Are more students graduating on time with high-quality associate degrees, and/or transferring credits to a four-year institution where they graduate with bachelor's degrees?
- Are more students becoming employed in jobs that provide good wages and benefits?
- Are more students repaying their student loans successfully?

Community Outcomes and Program Implementation-Related

- Is the region in which the community college is located filling more jobs?
- What kinds of meaningful partnerships are community stakeholders building with the school? Do residents engage more with the school?

- How are policymakers taking note of and responding to the college's successes and needs?
- Among eligible students, what percentage accepts the scholarship?
- How much of the cost of attendance are financial aid dollars covering for participating students?
- What are annual per-student costs for the program?

More information about an evaluation framework and metrics to consider across the K–12 and higher education systems can be found here.

Free Community College Cases and Models

Statewide Program: Tennessee



Tennessee Promise

With the idea of eliminating the barriers keeping Tennessee students from entering the postsecondary pipeline, Tennessee Promise provides a last-dollar scholarship with mentor support to our state's high school seniors. It sends the message to students and families that college is within everyone's reach regardless of zip code or socioeconomic background. It also communicates to business and industry that Tennessee is intensely focused on creating the workforce to meet their demands.

– Randy Boyd, Commissioner of Economic and Community Development in Tennessee

- **Tennessee Promise Today:** Tennessee Promise serves over 16,000 students, contributing to a 10 percent increase in public higher education enrollment and a 25 percent increase in enrollment at community colleges since 2014. Tennessee has the highest yearly gain in the percentage of graduating high school students who filed the FAFSA and accounted for more than 40 percent of the increase in such FAFSAs completed across the entire country. Since 2008, Tennessee students have contributed more than 740,000 community service hours. Tennessee Promise has reformed remediation by providing corequisite enrollment, with 93 percent of its students either testing out of courses or improving their entry placement scores, which can save students and the state millions of dollars. In addition, participating students have the personalized support of tnAchieves, a program which helps them through their postsecondary education with weekly communication, focus groups, and other resources. In its first year, the program cost \$15 million, which is less than \$1,000 per student. According to tnAchieves, reaching opportunity youths in Tennessee relied upon consistent communication, clearly defined pathways, and local mentorship.
- **Why Tennessee Promise:** In 2008, knoxAchieves—a predecessor of the Promise program—was formed and launched in Knox County to offer universal, last-dollar community and technical college scholarships. Tennessee's college attainment rate was 33 percent, and there were at least one million Tennesseans who had earned college credit but lacked a degree or credential. The organization's vision was to ensure that every student had a fair shot at a postsecondary education. These scholarships opened the doors to college for many students who would not otherwise have attended: 65 percent of its students were the first in their families to attend college and 70 percent came from families earning less than \$50,000 annually. Because of the program's success, knoxAchieves was charged with expanding the program statewide and changed the name to tnAchieves. Building on the success of tnAchieves, Tennessee Promise became the central college access and completion strategy in Governor Bill Haslam's "Drive to 55" campaign to increase the state's college attainment rate to 55 percent by 2025.
- **How Tennessee Promise Got Started:** In 2008, knoxAchieves was founded in Knox County with the support of its mayor. In its first cohort, the program served 493 students by raising private funds for last-dollar scholarships. Data showed that knoxAchieve's students had college retention rates that were 50 percent greater than the state average and college completion rates that were three times the state average. Given its success, 27 counties adopted the program to expand eligibility to nearly half of Tennessee's population, and the program became tnAchieves. By 2014, tnAchieves had collected six years of data and student stories to demonstrate the unprecedented 4.6 percent

increase in college-going and the overall positive impact of the program. One year later, Tennessee adopted the concept statewide in 85 counties, through a partnership with tnAchieves, and called it the Tennessee Promise.

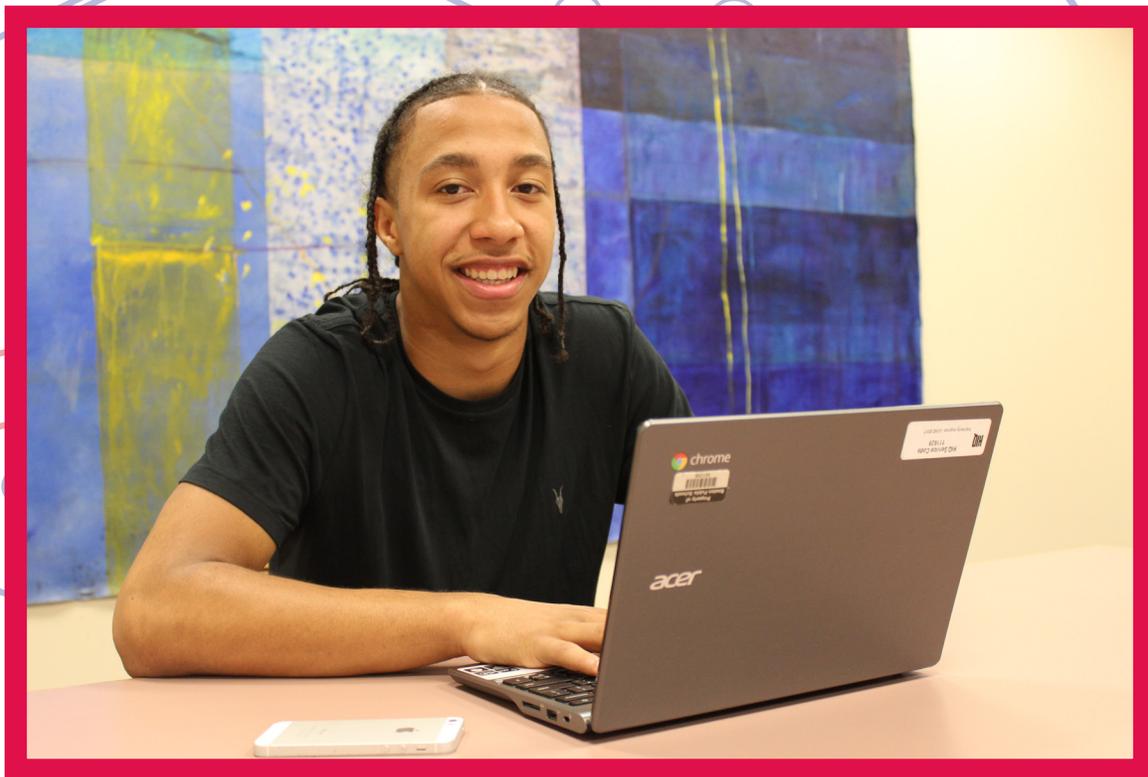
- **Financing and Partnerships:** The governor’s office led college completion efforts in partnership with tnAchieves. They established 85 county-based advisory councils comprised of local higher education, secondary education, and business leaders, as well as public officials, to ensure local ownership and sustainability. Realizing its vision that everyone plays a role in making Tennessee Promise and students’ educational experiences successful, tnAchieves recruits and trains over 9,000 volunteer mentors annually (up from 176 in 2009). These mentors support students in completing the FAFSA and filling out college applications and give advice on the overall college experience. Local advisory councils can offer advice in the mentoring recruitment and training process. In 2015, 35 percent of mentors came from business and industry, and many others come from a range of organizations with varying missions, including civic clubs (e.g., Rotary, Kiwanis, Lions clubs); engineering, hospital, and hospitality associations; and retirees.
- In 2014, the state passed legislation to create the Tennessee Promise, funded by a state-managed endowment and a special reserve account. After some negotiations that included shifting funding from the HOPE scholarship for four-year students, Tennessee established a \$360 million endowment. This endowment comes primarily from 1) the total unexpended lottery scholarship revenues from the previous 10 years (approximately \$312 million) and 2) a transfer of \$47 million from Tennessee Student Assistant Corporation’s student loan guaranty operating reserve. The Promise program’s sustainability model included long-term endowment earnings of 4 percent, yielding approximately \$7.2 million annually. Funding for the special reserve, the other component of the program’s funding, is derived from the following sources: 1) interest earnings from the Promise endowment; 2) total annual net lottery proceeds (i.e., lottery revenues in excess of expenditures on scholarships and administration); and 3) interest earnings on the special reserve. The special reserve is invested in similar long-term instruments, such as the endowment, yielding a similar rate of return. Even seven years before the launch of Tennessee Promise, tnAchieves grew as a privately funded organization, raising \$15 million for scholarships. This model engaged businesses and community members from the start.

Citywide Program: Boston

“The single most effective way to break down the social and financial barriers facing many families is to make postsecondary education free and accessible. In Boston, I am so proud that we launched our tuition-free community college program for Boston Public School graduates. I encourage other cities to commit to a similar program, and give all talented graduates another resource for success.”

– Martin J. Walsh, Mayor of Boston

- **Boston Community College Promise Today:** In April 2016, Mayor Martin Walsh announced a tuition-free community college plan to eliminate barriers to a college degree and address the economic disparities in Boston. The mayor's office expects an annual cost of \$250,000–\$600,000 to serve up to 400 students annually and intends to expand to other community colleges in the city. Starting in late fall 2016, the program will launch an integrated model of support services, bridge programs, dual enrollment, remedial classes, and resources that will connect students with employment opportunities, career navigation services, and financial aid advising. To be eligible, students must be graduates of Boston Public Schools, be Pell-eligible for a federal Pell Grant, earn at least a 2.0 GPA while enrolled in college, and complete community college within three years.
- **Why Boston Community College Promise:** The mayor commissioned a workforce assessment, which identified economic disparities within Boston, particularly in employment outcomes. For instance, some neighborhoods—like East Boston, Roxbury, Dorchester, and Mattapan—had unemployment rates that were three times as high as



Boston Community College Promise

Boston's. Among those who were unemployed, a disproportionate number lacked a college degree. By 2020, in Massachusetts, 72 percent of job openings will require some form of postsecondary education or vocational certificate training, and in Boston, 41 percent of jobs will require at least a bachelor's degree. Boston city officials recognized that earning a college degree was the best way to access the middle class and ensure a qualified workforce to meet the city's economic needs. The mayor's office identified free community college as a more cost-effective strategy than conventional skills training programs. For instance, a free community college program would also be a way of leveraging already existing systems and resources to expand college opportunity, help students access financial aid to make college more affordable, and make the investments necessary to increase student success.

- **How Boston Community College Promise Got Started:** Shortly after the assessment of Boston's workforce, the mayor's Office of Workforce Development, Boston Public Schools, and the city's Neighborhood Jobs Trust consulted with stakeholders and workforce partners. These conversations reinforced the data, which showed that investments in state schools and community colleges could have the greatest impact on addressing workforce needs. These schools already had a low marginal cost per student, open seats, and lower overhead costs. To design the program, the mayor's office consulted the president's ACP proposal, the Tennessee Promise framework, and other similar programs around the country, and broadened the student and program eligibility criteria based on financial resources. This program initially launched to cover eligible students' tuition at Bunker Hill Community College and Roxbury Community College, which serve communities where some of the economic and educational disparities are most severe.
- **Financing and Partnerships:** The Boston Community College Promise is financed through a linkage program, the city's Neighborhood Jobs Trust (NJT), operated by the mayor's Office of Workforce Development. The NJT collects developer fees from large-scale commercial developments in the city, which fund the free community college program. Prior to launching, the mayor's office developed partnerships with existing organizations to develop support systems so that students are able to complete community college. Most of these partnerships include nonprofit organizations that help students complete FAFSAs, prepare for the state exam to get into community colleges, and successfully complete college.

Urban Community College: Long Beach College Promise

"The Long Beach College Promise has been an essential catalyst for improving student success in the greater Long Beach area. Strengthening the partnership between Long Beach Unified School District; Long Beach City College; Cal State University, Long Beach; and the City of Long Beach has reaped tremendous benefits for our students and community. Offering a one-year tuition-free experience to all local area high school graduates has helped transform the greater Long Beach community and created a college-going culture among historically underrepresented and economically disadvantaged communities."

– Eloy Oakley, Chancellor-designate, California Community Colleges and Superintendent-President of the Long Beach Community College District

- **Long Beach College Promise Today:** The Long Beach College Promise focuses on building a culture of education in the community, in addition to emphasizing college preparation, access, and success. Students are exposed to the possibility of college as early as fourth grade. Long Beach College Promise measures its success by progress in the overall school system and community. Between 2011 and 2012, the number of Long Beach Unified School District (LBUSD) high school graduates completing college-level English at Long Beach City College (LBCC) increased by 500 percent, and the number completing college-level math increased by 200 percent. Nearly 90 percent of LBUSD graduates enroll in college within two years and are better prepared for college-level courses. About 8,000 students have benefited so far from one year of free community college. The transfer rate from LBCC to California State University-Long Beach (CSULB) was 18 percent higher in 2012 than that of the community college with the next highest CSULB transfer rate, and graduation rates at CSULB are currently above 65 percent, the highest in the California State University System. Other communities in California, including Sacramento and San Francisco, have used the Long Beach College Promise as a model for their partnerships.



Long Beach College Promise

- **Why Long Beach College Promise:** In the mid-1990s, scalebacks in the Long Beach aerospace industry and naval shipyard closures led to thousands of job losses. This economic downturn accompanied a demographic shift, bringing higher poverty rates in the region and a weaker college-going culture. The community determined that offering more residents a chance to access and succeed in a quality education program could also assist in transforming the community of Long Beach. However, key barriers—namely, finances and poor college preparation—were preventing too many prospective students from enrolling in college. The Long Beach community saw the Promise program as a solution that would help more residents develop the knowledge and skills needed to strengthen the local economy. Simultaneously, the community worked to provide the investments necessary to reform college preparation and ensure students can succeed in a rigorous academic environment from preschool through college.
- **How the Long Beach College Promise Got Started:** The community—particularly local education leaders, the mayor’s office, and civic leaders—came together to identify local barriers and assess the needs and experiences of their students. LBUSD, LBCC, and CSULB, were key partners that helped identify the need to support students from pre-K to college completion, and to bridge the gap between students and the local workforce. From there, Long Beach identified stakeholders who would build a small, strong, committed coalition under a focused set of objectives. In 2008, the partners signed the Long Beach College Promise, a memorandum of understanding (MOU) that established a formal relationship with clear goals. The partners credit the MOU with sustaining the work according to their original vision and standards.
- **Financing and Partnerships:** Long Beach College Promise was created in the midst of a recession, so it was challenging to find any new major funding sources. Rather than waiting for an endowment or foundation to offer funding, Long Beach reallocated existing resources and funding, and as needed, sought flexibility on the use of funds within programs in which they were already participating. This strategy sustained the Long Beach College Promise for six years. Finally, in 2014, Long Beach College Promise received its first funding from outside resources when Governor Jerry Brown launched a \$50-million statewide prize for innovation in higher education. Altogether, the Long Beach College Promise raised more than \$6 million from its local foundation for a free year of tuition for students, along with a \$5-million award for innovation from the state to continue the work of the Promise. The Long Beach College Promise continues to rely on evidence of progress to make the case to support moving forward.

Rural Community College: Dabney Promise

“It became increasingly clear to our leadership that our strategic goals would never be fully met unless we worked to ensure that the ability to enroll in DSLCC would be available to everyone. There were still barriers for many who needed us the most; the Dabney Promise means that all who seek postsecondary education and training will truly now be able to do so.”

– John Rainone, President of Dabney S. Lancaster Community College

- **Dabney Promise Today:** The Dabney S. Lancaster Community College (DSLCC) Educational Foundation administers the Dabney Promise and continues to raise funds for the scholarship. This year, the Dabney Promise is prepared to start its pilot program for about 50 students, including adult and continuing students. Students are required to be enrolled for at least three-quarters of the full-time status to promote persistence and on-time completion. Additionally, they must complete four hours of community service annually to give back to the community that helped finance a portion of their higher education costs.
- **Why Dabney Promise:** Following the entry of new leadership at DSLCC, located in rural Virginia, the institution held a dozen community forums to help leaders better understand urgent local needs and build trust. As the “community’s college,” DSLCC leadership saw an opportunity to bring a range of stakeholders to the table to solve the most pressing concerns. High on the list of issues to address was the area’s low education attainment



↑
Dabney Promise

rate—24 percentage points below that of other areas in Virginia. Community members shared that tuition costs, even after financial aid, presented a key barrier that prevented youth and adult learners from even considering higher education. The Dabney Promise was established to open the doors to a college education for those who would not attend otherwise.

- **How Dabney Promise Got Started:** When President Obama announced ACP in January 2015, DSLCC was in the beginning stages of a fundraising campaign for tuition scholarships. By naming the program “Dabney Promise,” the college emphasized its connection to the national movement and conversation. After assessing local needs, DSLCC leaders began modeling the design on ACP, along with other best practices throughout the nation. Along the way, DSLCC worked closely with its financial aid office to set up a last-dollar program, and to ensure that support services were in place to increase FAFSA completion by a greater number of students.
- **Financing and Partnerships:** To promote college preparedness, DSLCC focused on building strong partnerships with six high schools, which have helped to increase the number of students in dual-enrollment programs by 30 percent, to about 600 students. Based on what DSLCC learned from the listening sessions and its own data, it developed a case statement for the Dabney Promise. It highlighted the out-of-pocket costs that remain for students and families even after receiving the maximum financial aid available to them. When asking for individual, institutional, and employer support, a focus was placed on the need to increase education attainment for a stronger workforce and to support the development of knowledge and skill sets that business and industries identified as essential. Given its rural location, DSLCC relied on local donors and built the Promise into its annual fundraising campaign. Altogether, the campaign attracted 400 donors, which doubled the record number of donors throughout DSLCC’s 53-year history. Donors even included municipalities that wanted to help support increased educational opportunities for local residents.

Employer-Community College Partnership Cases and Models

In the following models, community colleges partnered with employers to expand and improve education and career training programs that help job seekers develop the skills they need for in-demand jobs in industries, such as information technology, health care, energy, and advanced manufacturing. These partnerships were formed under the Federal Trade Adjustment Assistance Community College and Career Training (TAACCCT) program, which has served more than half of the nation’s community colleges.

Alpena Community College: Michigan

- Alpena Community College (ACC) received \$2.8 million to implement Sustainable Solutions for Northeast Michigan: Green Jobs and Clean Energy, a project to build a statewide energy partnership network. The network included the Michigan National Guard, and DTE Energy and Consumers Energy, the two largest energy employers in Michigan, as well as the state workforce development board. This partnership network designed and implemented the Gas Energy Bootcamp, targeting unemployed and returning veterans. Local 223 of the Utility Workers Union of America had a role in

curriculum planning and hands-on training delivery. DTE Energy provided approximately \$60,000 in private funding to house and feed the trainees at Camp Grayling for the entire eight-week course duration. In its last quarter alone, ACC reported 20 employers seeking interviews with or hiring program graduates. Overall, ACC served 420 students, of whom 379 completed at least one program of study. Of the 193 completers who were not working when they entered the program, 186 students entered employment, giving ACC a 96 percent employment rate. Of the 186 completers who were already working at entry, 72 percent had wage increases.

Collin County Community College District: Texas

- Collin County Community College and six other colleges from six states (Arizona, Illinois, Massachusetts, Texas, Utah, and Washington) received \$20 million to develop and enhance, with deep employer engagement, more than 100 curriculum and training modules and 250 virtual laboratory exercises in four information technology (IT) specialty areas: programming, networking, cybersecurity, and geospatial technologies. The seven institutions partnered with some of the nation's leading information technology employers to form the National Information, Security, Geospatial, and Information Technologies (NISGTC) consortium. With the leadership of Cisco, Dell, ADT Security, IBM, Microsoft, AT&T, Lockheed Martin, and others, NISGTC established four national business and industry leadership teams (BILTs) comprised of representatives from more than 200 companies in nine states and the District of Columbia. The employer leadership of the BILTs includes high-level corporate management, and the colleges' engagement in the leadership teams far exceeds that of typical business advisory councils. Each of the four BILTs met separately and worked closely with college faculty and program staff to offer guidance. Based on the direct input from these employers, BILT members collaborated with community college educators to redesign curricula and training modules, as well as certificate and degree programs. This ensured that participants would obtain the skills necessary for successful careers in the four IT specialties

Endnotes

- ¹ United States Department of Labor, Office of Occupational Statistics and Employment Projections, “Employment Projections: 2014-24 Summary,” (Washington, DC: Bureau of Labor Statistics, 2015), <http://www.bls.gov/news.release/ecopro.nr0.htm>.
- ² United States Department of Education, “College Scorecard Data,” (September 2016), <https://collegescorecard.ed.gov/data/>.
- ³ Anthony Carnevale, Stephen Rose, and Ban Cheah, “The College Payoff: Education, Occupations, Lifetime Earnings,” (Washington, DC: Georgetown University Center on Education and the Workforce, Georgetown University, 2011):4, <http://files.eric.ed.gov/fulltext/ED524299.pdf>. Louis Jacobson, Robert J. Lalonde, and Daniel Sullivan, “The Impact of Community College Retraining on Older Displaced Workers: Should We Teach Old Dogs New Tricks?” (Chicago, IL: Federal Reserve Bank of Chicago, 2003), <http://eric.ed.gov/?id=ED505649>.
- ⁴ The White House Office of the Press Secretary, “Fact Sheet – White House Unveils America’s College Promise Proposal: Tuition-Free Community College for Responsible Students,” (Elsevier Ltd., 2015), <https://www.whitehouse.gov/the-press-office/2015/01/09/fact-sheet-white-house-unveils-america-s-college-promise-proposal-tuition>.
- ⁵ The White House Office of the Press Secretary, “Fact Sheet: White House Launches New \$100 Million Competition to Expand Tuition-Free Community College Programs that Connect Americans to In-Demand Jobs,” (2016), <https://www.whitehouse.gov/the-press-office/2016/04/25/fact-sheet-white-house-launches-new-100-million-competition-expand>.
- ⁶ Ibid.
- ⁷ J. E. Brand, F. T. Pfeffer, and S. Goldrick-Rab, “Interpreting community college effects in the presence of heterogeneity and complex counterfactuals,” (Los Angeles, CA: California Center for Population Research, University of California, Los Angeles, 2012), <https://wiscap.wisc.edu/wiscap/publications/working-papers/wp014>. A. Chung, “The choice of for-profit college,” *Economics of Education Review*, 31(6), (Elsevier Ltd., 2012): 1084–1101. N. Hillman and T. Weichman, “Education deserts: The continued significance of ‘place’ in the twenty-first century,” *Viewpoints: Voices from the Field*, (Washington, DC: American Council on Education, 2016).
- ⁸ Timothy J. Bartik, Brad J. Hershbein, and Marta Lachowska, “The Effects of the Kalamazoo Promise Scholarship on College Enrollment, Persistence, and Completion,” working paper no. 15-229, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, June 2015), http://research.upjohn.org/cgi/viewcontent.cgi?article=1246&context=up_workingpapers. Celeste K. Carruthers and William F. Fox, “Aid for All: College Coaching, Financial Aid, and Post-secondary Persistence in Tennessee,” *Economics of Education Review*, 51, (Elsevier Ltd., April 2016): 97-112, <http://www.sciencedirect.com/science/article/pii/S0272775715000771>. Timothy J. Bartik, and Marta Lachowska, “The short-term effects of the Kalamazoo Promise Scholarship on student outcomes,” *Research in Labor Economics*, 38, (Institute for the Study of Labor, 2013), 37-76. Lindsay C. Page, Benjamin L. Castleman, and Gumilang A. Sahadewo, “More than Dollars for Scholars: The Impact of the Dell Scholars Program on College Access, Persistence and Degree Attainment,” (Social Science Research Network, February 2016), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2726320.
- ⁹ National Governors’ Association Center for Best Practices, “Using Community Colleges to Build a STEM-Skilled Workforce,” (Washington, DC: 2011), <http://files.eric.ed.gov/fulltext/ED522079.pdf>.
- ¹⁰ Stephanie Riegg Cellini, and Nicholas Turner, “Gainfully Employed? Assessing the Employment and Earnings of For-Profit College Students Using Administrative Data,” working paper no. 2228, (Cambridge, MA: National Bureau of Economic Research, 2016) <http://www.nber.org/papers/w22287.pdf>. Community College Research Center, “What We Know About Dual Enrollment,” (New York, NY: Teachers College, Columbia University, 2012), <http://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-research-overview.pdf>.
- ¹¹ Ibid.
- ¹² Jeffrey T. Denning, “College on the Cheap: Consequences of Community College Tuition Reductions,” *American Economic Journal*, working paper, n.d., (Nashville, TN: American Economic Association), <https://www.aeaweb.org/articles?id=10.1257/pol.20150374&&from=f>.
- ¹³ Timothy J. Bartik and Nathan Sotherland, “Migration and Housing Price Effects of Place-Based College Scholarships,” working paper no. 15-245, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2015), <http://dx.doi.org/10.17848/wp15-245>.

- ¹⁴ Stephanie Marken, Lucinda Gray, and Laurie Lewis, “Dual Enrollment Programs and Courses for High School Students at Postsecondary Institutions: 2010–11,” (Washington, D.C.: National Center for Education Statistics, February 2013), <http://nces.ed.gov/pubs2013/2013002.pdf>.
- ¹⁵ American Institutes for Research & SRI, “Early college, early success: Early College High School Initiative impact study,” (Washington, DC: American Institutes for Research, 2013), <http://ies.ed.gov/ncee/wwc/singlestudyreview.aspx?sid=20006>. B. P. An, “The impact of dual enrollment on college degree attainment: Do low-SES students benefit?” *Educational Evaluation and Policy Analysis*, 35, (2012): 57-75, <http://epa.sagepub.com/content/35/1/57>. Community College Research Center, “What we know about dual enrollment,” (New York, NY: Teachers College, Columbia University, 2012), <http://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-research-overview.pdf>.
- ¹⁶ National Center for Education Statistics, “Table 330.10,” *Digest of Education Statistics*, https://nces.ed.gov/programs/digest/d15/tables/dt15_330.10.asp.
- ¹⁷ Bailey, et al., “What We Know About Transfer,” (New York, NY: Community College Research Center, Teachers College, Columbia University, 2015), <http://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-transfer.pdf>.
- ¹⁸ National Center for Education Statistics, “Table 321.12,” *Digest of Education Statistics*, (Washington, DC: 2014), https://nces.ed.gov/programs/digest/d14/tables/dt14_321.12.asp?current=yes; National Center for Education Statistics, “Table 318.10,” *Digest of Education Statistics*, (Washington, DC: 2014), https://nces.ed.gov/programs/digest/d15/tables/dt15_318.10.asp?current=yes.
- ¹⁹ L. Woolsey and G. Groves, “State Sector Strategies Coming of Age: Implications for State Workforce Policy Makers,” (Washington, DC: National Governors Association, 2013).
- ²⁰ Community College Research Center, “What We Know About Guided Pathways,” (New York, NY: Teachers College, Columbia University, March 2015), <http://ccrc.tc.columbia.edu/media/k2/attachments/What-We-Know-Guided-Pathways.pdf>.
- ²¹ James Rosenbaum, et. al., “The New Forgotten Half and Research Directions to Support Them,” (New York, NY: William T. Grant Foundation, 2015), <https://www.luminafoundation.org/files/resources/the-new-forgotten-half-and-research-directions-to-support-them.pdf>.
- ²² Susan Scrivener, et al. “Doubling Graduation Rates: Three-Year Effects of CUNY’s Accelerated Study in Associate Programs (ASAP) for Developmental Education Students,” (MDRC, February 2015), <http://www.mdrc.org/publication/doubling-graduation-rates>. Henry Levin and Emma Garcia, “Benefit-Cost Analysis of Accelerated Study in Associate Programs (ASAP) of the City University of New York (CUNY),” (Center for Benefit-Cost Studies in Education, Teachers College, Columbia University, September 2009), http://www.nyc.gov/html/ceo/downloads/pdf/Levin_ASAP_Benefit_Cost_Report_FINAL_05212013.pdf.
- ²³ Sandy Baum and Charles Kurose, “Community Colleges in Context: Exploring Financing of Two- and Four-Year Institutions,” (The Century Foundation, 2013), https://tcf.org/assets/downloads/20130523-Bridging_the_Higher_Education_Divide-Baum_Kurose.pdf.
- ²⁴ Ibid.
- ²⁵ Louis Soares, “The Power of the Education-Industry Partnership: Fostering Innovation in Collaboration Between Community Colleges and Businesses,” (Washington, DC: Center for American Progress, October 2010), <https://www.americanprogress.org/issues/labor/report/2010/10/04/8518/the-power-of-the-education-industry-partnership/>.
- ²⁶ H. Levin and E. Garcia, “Benefit-Cost Analysis of Accelerated Study in Associate Programs (ASAP) of the City University of New York (CUNY),” (New York, NY: Center for Benefit-Cost Studies in Education, Teachers College, Columbia University, September 2009), http://www.nyc.gov/html/ceo/downloads/pdf/Levin_ASAP_Benefit_Cost_Report_FINAL_05212013.pdf. 24 S. Scrivener, et al., “Doubling Graduation Rates: Three-Year Effects of CUNY’s Accelerated Study in Associate Programs (ASAP) for Developmental Education Students,” (MDRC, February 2015), <http://www.mdrc.org/publication/doubling-graduation-rates>.
- ²⁷ Laura Perna and Patricia Steele, “The Role of Context in Understanding the Contributions of Financial Aid to College Opportunity,” *Teachers College Record*, 113.5, (New York, NY: Teachers College, Columbia University, May 2011).

- ²⁸ U.S. Department of Education, “Beginning Postsecondary Students Longitudinal Survey,” (Washington, DC: National Center for Education Statistics, 2012), <https://nces.ed.gov/surveys/bps/tables.asp>.
- ²⁹ D. Shapiro, et al., “Completing College: A National View of Student Attainment Rates – Fall 2009 Cohort,” (National Student Clearinghouse Research Center, November 2015), <https://nscresearchcenter.org/wp-content/uploads/SignatureReport10.pdf>. Laura Horn, Emily Forrest Cataldi, and Anna Sikora, “Waiting To Attend College: Undergraduates Who Delay Their Postsecondary Enrollment,” (Washington, DC: National Center for Education Statistics, June 2005), <http://nces.ed.gov/das/epubs/2005152/>. Sunny Niu and Marta Tienda, “Delayed Enrollment and College Plans: Is There a Postponement Penalty?” (Washington, DC: National Institutes of Health, January 2013), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3627725/>.
- ³⁰ Adam Looney and Constantine Yannelis, “A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults,” (Washington, DC: Brookings Institution, September 2015), <https://www.brookings.edu/bpea-articles/a-crisis-in-student-loans-how-changes-in-the-characteristics-of-borrowers-and-in-the-institutions-they-attended-contributed-to-rising-loan-defaults/>.
- ³¹ U.S. Department of Education, “National Postsecondary Student Aid Study,” (Washington, DC: National Center for Education Statistics, 2012), <https://nces.ed.gov/surveys/npsas/>.
- ³² Toby Park, “The Impact of Full Time Enrollment in the First Semester on Community College Transfer Rates: New Evidence from Texas With Pre-College Determinants,” *Teachers College Record*, 117.12, (2014): 1-24, <http://www.tcrecord.org/library/abstract.asp?contentid=18153>.
- ³³ Clive Belfield, David Jenkins, and Hana Lahr, “Momentum: the Academic and Economic Value of a 15-Credit First-Semester Course Load for College Students in Tennessee,” working paper no. 88, (New York, NY: Community College Research Center, Teachers College, Columbia University, June 2016), <http://ccrc.tc.columbia.edu/publications/momentum-15-credit-course-load.html>.
- ³⁴ Committee on Student Financial Assistance, “Satisfactory Academic progress Essentials for Compliance at Medical Schools,” Code of Federal Regulations, C average provision at section 668.34(a)(4)(ii), (April 2015), http://www.unc.edu/sacs/March2016/Web_Public/Docs/4.7/34-cfr-668.34.pdf.
- ³⁵ Barrow, et al., “Paying for Performance: The Education Impacts of a Community College Scholarship Program for Low-Income Adults,” (Chicago, IL: Federal Reserve Bank of Chicago, 2012), <https://chicagofed.org/~media/publications/working-papers/2009/wp2009-13-pdf.pdf>. Heather MacDonald, et al., “Final Impacts Report: Foundations for Success,” (Ottawa, Ontario: R.A. Malatest & Associates, 2009), <http://malatest.com/CMSF%20FFS%20-%20FINAL%20Impacts%20Report.pdf>. MDRC, “Performance-Based Scholarship Demonstration: Project Overview,” n.d., <http://www.mdrc.org/project/performance-based-scholarship-demonstration#overview>. MDRC, “Using Financial Aid to Speed Degree Completion: A Look at MDRC’s Research,” (March 2016), http://www.mdrc.org/sites/default/files/2016_Using_Financial_Aid_to_Speed_Degree_Completion_IFv2.pdf.
- ³⁶ Judith Scott-Clayton, “The Shapeless River: Does a Lack of Structure Inhibit Students’ Progress at Community Colleges?”, working paper no. 25, (New York, NY: Community College Research Center, Teachers College, Columbia University, 2011), <http://ccrc.tc.columbia.edu/media/k2/attachments/shapeless-river.pdf>. Barrow, et al., “Paying for Performance: The Education Impacts of a Community College Scholarship Program for Low-Income Adults,” working paper no. 30, (Princeton, NJ: Princeton University Education Research Section, 2012), http://www.princeton.edu/system/files/research/documents/rouse_paying_for_performance.pdf. Heather MacDonald, et al., “Final Impacts Report: Foundations for Success,” (Ottawa, Ontario: R.A. Malatest & Associates, 2009), <http://malatest.com/CMSF%20FFS%20-%20FINAL%20Impacts%20Report.pdf>.
- ³⁷ U.S. Department of Education, “National Postsecondary Student Aid Study” (Washington, DC: National Center for Education Statistics, 2012), PowerStats online data extraction.
- ³⁸ U.S. Department of Education, “National Postsecondary Student Aid Study,” (Washington, DC: National Center for Education Statistics, 2012), <https://nces.ed.gov/surveys/npsas/>.
- ³⁹ Jolanta Juskiewicz, “Community College Students and Federal Student Financial Aid: A Primer,” (Washington, DC: American Association of Community Colleges, April 2014), http://www.aacc.nche.edu/Publications/Reports/Documents/CCStudents_A_Primer.pdf.
- ⁴⁰ David Radwin, et. al., “National Postsecondary Student Aid Study 2011-12,” (Washington, DC: U.S. Department of Education and The National Center for Education Statistics, 2013).

- ⁴¹ U.S. Department of Education, “National Postsecondary Student Aid Study,” (National Center for Postsecondary Statistics, NPSAS 2012), <https://nces.ed.gov/surveys/npsas/>.
- ⁴² Anthony P. Carnevale, et al., “Learning While Earning: The New Normal,” (Washington, DC: Georgetown University Center on Education and the Workforce, Georgetown University, 2015), <https://cew.georgetown.edu/wp-content/uploads/Working-Learners-Report.pdf>. Audrey Light, “In-School Work Experience and the Returns to Schooling,” *Journal of Labor Economics*, 19.1 (Chicago, IL: University of Chicago Press, 2001): 65-93. L. Dundes and J. Marx, “Balancing Work and Academics in College: Why Do Students Working 10 to 19 Hours per Week Excel?” *Journal of College Student Retention*. Vol. 8. No. 1 (Amityville, NY: Baywood Publishing Company, 2007): 107-20. Philip M. Gleason, “College Student Employment, Academic Progress, and Postcollege Labor Market Success,” *Journal of Student Financial Aid*, Vol. 23. Iss. 2 (Washington, DC: National Association of Student Financial Aid Administrators, 1993), 5-14. C. J. Molitor and D. E. Leigh, “In-school work experience and the returns to two-year and four-year colleges,” *Economics of Education Review*, Vol. 24., Iss. 4, (Elsevier, 2005): 459-468. J. M Orszag, P. R. Orszag, and D. M. Whitmore, “Learning and Earning: Working in College,” (Upromise, 2001). E.T. Pascarella, et al., “Does work inhibit cognitive development during college?” *Educational Evaluation and Policy Analysis*, Vol. 20., No. 2 (American Educational Research Association, 1998): 75-93. Jeffrey S. DeSimone, “The Impact of Employment during School on College Student Academic Performance,” working paper no. 14006, (Cambridge, MA: National Bureau of Economic Research, 2008), <http://www.nber.org/papers/w14006.pdf>. C. Kalenkoski and S. Pabilonia, “Parental transfers, student achievement, and the labor supply of college students,” working paper no. 416, *Journal of Population Economics*, Vol. 23., No. 2 (New York, NY: Springer, 2008): 469–496, <http://www.bls.gov/ore/pdf/ec080020.pdf>. Ralph Stinebrickner and Todd R. Stinebrickner, “Understanding Educational Outcomes of Students from Low-Income Families: Evidence from a Liberal Arts College with a Full Tuition Subsidy Program,” *Journal of Human Resources*, Vol. 38, No. 3 (Madison, WI: University of Wisconsin Press, 2003): 591-617, <https://www.jstor.org/stable/pdf/1558769.pdf>.
- ⁴³ Anthony P. Carnevale, et al., “Learning While Earning: The New Normal,” (Washington, DC: Georgetown Center on Education and the Workforce, Georgetown University, 2015), <https://cew.georgetown.edu/wp-content/uploads/Working-Learners-Report.pdf>.
- ⁴⁴ R. Darolia, “Working (and studying) day and night: Heterogeneous effects of working on the academic performance of full-time and part-time students,” *Economics of Education Review* (Elsevier Ltd., 2014).
- ⁴⁵ Katharine Broton, Sara Goldrick-Rab, and Benson, James, “Working for College: the Causal Impacts of Financial Grants on Undergraduate Employment,” *Educational Evaluation and Policy Analysis*, (American Educational Research Association, 2016), <http://wihopelab.com/publications/Broton-elal-Working-for-College.pdf>.
- ⁴⁶ Thomas Bailey, Shanna Smith Jaggars, and Davis Jenkins, “What We Know about Guided Pathways,” (New York, NY: Community College Research Center, Teachers College, Columbia University, 2015), <http://ccrc.tc.columbia.edu/media/k2/attachments/What-We-Know-Guided-Pathways.pdf>.
- ⁴⁷ Thomas Bailey. “Challenge and Opportunity: Rethinking the Role and Function of Developmental Education in Community College,” *New Directions for Community Colleges*, 145 (New York, NY: Community College Research Center, Teachers College, Columbia University, 2009): 11–30, <http://ccrc.tc.columbia.edu/media/k2/attachments/challenge-and-opportunity.pdf>.
- ⁴⁸ Ibid.
- ⁴⁹ Thomas Bailey, Shanna Jaggars, and Judith Scott-Clayton, “Characterizing the Effectiveness of Developmental Education,” (New York, NY: Community College Research Center, Teachers College, Columbia University, 2013): 18–27, <http://ccrc.tc.columbia.edu/media/k2/attachments/response-to-goudas-and-boylan.pdf>. Judith Scott-Clayton and Lindsay Page, “Improving College Access in the United States: Barriers and Policy Responses,” working paper no. 21781, (Cambridge, MA: National Bureau of Economic Research, December 2015), <http://www.nber.org/papers/w21781>.
- ⁵⁰ Long Beach City College, “Promise Pathways,” (Long Beach, CA, n.d.), <http://www.lbcc.edu/promisepathways/>.
- ⁵¹ Elizabeth Rutschow and Emily Schneider, “Unlocking the Gate, What We Know About Improving Developmental Education,” (MDRC, June 2011), http://www.mdrc.org/sites/default/files/full_595.pdf.
- ⁵² Shanna Smith Jaggars, Michelle Hodara, Sung-Woo Cho, and Di Xu, “Three Accelerated Developmental Education Programs: Features, Student Outcomes, and Implications,” *Community College Review*, 43.1, (Sage Journals, January 2015): 3–26, <http://crw.sagepub.com/content/43/1/3.full.pdf+html>.

- ⁵³ Community College Research Center, “What We Know About Dual Enrollment,” (New York, NY: Teachers College, Columbia University, 2012), <http://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-research-overview.pdf>.
- ⁵⁴ D. Jenkins and J. E. Fink, “Tracking Transfer: New measures of institutional and state effectiveness in helping community college students attain bachelor’s degrees,” (New York, NY: Community College Research Center, The Aspen Institute, and National Student Clearinghouse Research Center, 2016) <http://ccrc.tc.columbia.edu/media/k2/attachments/tracking-transfer-institutional-state-effectiveness.pdf>. Bailey, et al., “What We Know About Transfer,” (Community College Research Center, 2015), <http://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-transfer.pdf>. Jennifer Wine, et.al., “2003-04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up,” (BPS:04/09) (U.S. Department of Education, National Center for Education Statistics, 2011), http://nces.ed.gov/pubs2012/2012246_1.pdf.
- ⁵⁵ U.S. Department of Education, “National Postsecondary Student Aid Study,” (Washington, DC: National Center for Education Statistics, 2012): PowerStats online data extraction.
- ⁵⁶ David Monaghan and Paul Attewell, “The Community College Route to the Bachelor’s Degree,” *Education Evaluation and Policy Analysis*, (American Educational Research Association, 2014) <http://epa.sagepub.com/content/early/2014/02/28/0162373714521865.full.pdf+html?ijkey=m8EKj850s9SvE&keytype=ref&siteid=spepa>.
- ⁵⁷ D. Crook, C. C. Chellman, and A. Holod, “Does earning an associate degree lead to better baccalaureate outcomes for transfer students?”, working paper, (New York, NY: CUNY Office of Policy Research, 2012), https://www.cuny.edu/about/administration/offices/ira/opr/papers/associate_degree.pdf.
- ⁵⁸ Education Commission of the States, “Transfer and Articulation – All State Profiles,” (Denver, CO: April 2016), <http://ecs.force.com/mbdata/mbprofallrta?Rep=TA16STA>.
- ⁵⁹ Joshua Wyner, K. C. Deane, David Jenkins, and John Fink, “The Transfer Playbook: Essential Practices for Two- and Four-year Colleges,” (Washington, DC: Community College Research Center and The Aspen Institute, 2016), https://assets.aspeninstitute.org/content/uploads/files/content/docs/pubs/aspen-ccrc_transferplaybook_05-2016.pdf.
- ⁶⁰ Susan Scrivener, et al. “Doubling Graduation Rates: Three-Year Effects of CUNY’s Accelerated Study in Associate Programs (ASAP) for Developmental Education Students,” (MDRC, February 2015), <http://www.mdrc.org/publication/doubling-graduation-rates>.
- ⁶¹ Gail Baksh-Jarrett and Amy-Ellen Duke Benfield, “Integrating Public Benefits into Campus Services and Financial Aid to Facilitate College Completion,” Presented at National Association of Student Financial Aid Administrators Conference; Session 230 (Washington, DC: 2013).
- ⁶² Gloria Crisp, “The Impact of Mentoring on the Success of Community College Students,” *The Review of Higher Education*, 34.1 (Project MUSE, 2010): 39-60, <http://muse.jhu.edu/article/395601>.
- ⁶³ B. S. Barnow and S. Spaulding, “Employer Involvement in Workforce Programs,” ed. C.V. Horn, T. Edwards, and T. Greene, *Transforming U.S. Workforce Development Policies for the 21st Century*, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2015): 231-263, <https://www.kansascityfed.org/~media/files/publicat/community/workforce/transformingworkforcedevelopment/bookbychapter/ch9-employer-involvement.pdf>. S. Maguire, et al., “Tuning In to Local Labor Markets: Findings from the Sectoral Employment Impact Study,” (Philadelphia, PA: Public/Private Ventures, 2010), <http://ppv.issuelab.org/resources/5101/5101.pdf>.
- ⁶⁴ Geoff Mason, Gareth Williams, and Sue Cranmer, “Employability skills initiatives in higher education: what effects do they have on graduate labour market outcomes?” *Education Economics*, Vol. 17, No.1, (2009): 1-30. <http://www.tandfonline.com/doi/abs/10.1080/09645290802028315>.
- ⁶⁵ Lindsey Woolsey and Garrett Groves, “State Sector Strategies Coming of Age: Implications for State Workforce Policy Makers,” <https://www.nga.org/files/live/sites/NGA/files/pdf/2013/1301NGASSSReport.pdf> 2013.
- ⁶⁶ Sara Goldrick-Rab and Natalie Kendall, “F2CO, Redefining College Affordability: Securing America’s Future with a Free Two Year College Option,” (Indianapolis, IN: Lumina Foundation, April 2014), http://wihopelab.com/publications/Redefining_College_Affordability.pdf.
- ⁶⁷ U.S. Department of Education, National Postsecondary Student Aid Study (NPSAS 2012): PowerStats online data extraction.



⁶⁸ Sara Goldrick-Rab and Natalie Kendall, “F2CO, Redefining College Affordability: Securing America’s Future with a Free Two Year College Option,” (Indianapolis, IN: Lumina Foundation, April 2014), http://wihopelab.com/publications/Redefining_College_Affordability.pdf.

⁶⁹ Analysis by Chad Aldeman, Bellwether Education Partners, <http://aheadoftheheard.org/on-college-signing-day-a-look-at-fafsa-completion-rates>

⁷⁰ Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, “Recovery: Job Growth and Requirements Through 2020 (State Report),” (Washington, DC: Georgetown Center on Education and the Workforce, Georgetown University, June 2013).



The Department of Education's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.

www.ed.gov