

Preparing Missourians to Succeed



A Blueprint for Higher Education



A New Plan for Missouri

WE ARE PLEASED to present *Preparing Missourians to Succeed: A Blueprint for Higher Education*—a new coordinated plan for postsecondary education in Missouri.

State law calls for the Coordinating Board for Higher Education to periodically create a coordinated plan to address Missouri's higher-education needs. The last plan was adopted in 2008.

The Coordinating Board assembled a 36-member steering committee of leaders in education, business and industry, and government to provide valuable and varied perspectives. The committee hosted nine public hearings across Missouri to gather information and testimony from more than 100 witnesses and dozens of subject-matter experts.

This process identified five goals for Missouri higher education:

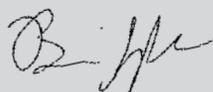
- ◆ Increase educational attainment
- ◆ Keep college affordable
- ◆ Maintain quality
- ◆ Expand academic research and innovation
- ◆ Build investment, advocacy and partnerships

These goals will guide and support future efforts to achieve Missouri's Big Goal for higher education—for 60 percent of adults age 24-65 to have a two- or four-year degree or career or technical certificate by 2025.

The Big Goal was set by the Coordinating Board in 2011 to meet the growing demand for college graduates in Missouri. This past year, as we talked to the owners of businesses large and small, community leaders, college presidents and professors, and students and their families, it became clear that achieving the Big Goal for higher education is critical to our state's future prosperity.

The Blueprint calls for new policies, programs and partnerships necessary to prepare Missouri for the challenges that lie ahead. It will help promote a culture of education and training.

The new plan will guide our work for the next five years as we endeavor to provide high-quality postsecondary education opportunities for all Missourians.



Brian Fogle

Chair, Coordinating Board for Higher Education



David R. Russell

Missouri Commissioner of Higher Education



Vision

Missouri will be a national leader in providing high-quality postsecondary education that will equip Missourians with the personal and professional skills to succeed in the 21st century.



Mission

The Coordinating Board for Higher Education and the Missouri Department of Higher Education will collaborate with stakeholders to deliver a coordinated postsecondary education system that provides accessible, affordable and innovative education that supports economic growth, enhances civic engagement and improves the quality of life for all Missourians.

Guiding Principles

The *Blueprint for Higher Education* is founded on a set of principles that guide the Coordinating Board for Higher Education in its work:

- ◆ Today's society demands citizens with education beyond high school. Higher education must provide students with the knowledge and skills necessary to succeed in a global economy and instill in them a commitment to lifelong learning and social responsibility.
- ◆ To ensure success, more Missourians must be able to access, afford and complete postsecondary education at an institution that best fits their educational needs, goals and potential.
- ◆ The strength of Missouri's higher-education system is defined by the diversity of its institutions, their missions, their students and the educational opportunities they provide to enrich student learning and future success.
- ◆ Missouri's higher-education system must be accountable for learning outcomes and demonstrate responsible stewardship of public funds.
- ◆ Basic and applied research, the creation of knowledge, and the application of information to solve problems should be recognized and supported as essential functions of Missouri's higher-education system.
- ◆ Higher education must be valued as both a private benefit that contributes to personal enrichment and prosperity and a public good, essential to increased economic opportunity, civic engagement and a better quality of life for all Missourians.

Missouri's Future Depends on an Educated Citizenry

THE BENEFITS of higher education are the building blocks of a vibrant society, a thriving economy and a good quality of life for all Missourians.

Postsecondary education provides individuals with the skills and knowledge they need to be economically independent and intellectually engaged in society.

Broad access to higher levels of education was a major factor in the United States' economic growth during the 20th century and the creation of the American middle class. As the world becomes more complex, the need for highly educated citizens continues to grow.

Greater educational attainment benefits not only those who attend college but society as a whole. College graduates enjoy greater earnings—an average of \$1 million more over the course of their lifetime than those with only a high school diploma. Individuals with higher education levels are more likely to have jobs that provide health insurance

and retirement benefits. They have better access to preventative health care and lead longer, healthier lives. They often have more leisure time, better outcomes for their children and an improved quality of life.

Equally important, a democratic society relies on educated citizens who are equipped with critical thinking and reasoning skills that help them make informed decisions.

College graduates are more motivated to vote and participate in activities that have a positive impact on their community. They pay more taxes, rely less on government social programs, and are less likely to be incarcerated. They are more likely to develop a greater appreciation for the arts; engage in activities that promote racial understanding; and possess basic values that are common across racial and ethnic categories.

The Impact of Higher Education

	Have health insurance	Receive food stamps	Regularly vote	Regularly volunteer
High School Graduates	55%	8%	55%	18%
College Graduates	84%	1%	79%	42%



TO PROSPER, all Missourians must have access to multiple options for high-quality postsecondary education—two- and four-year colleges and universities, career and technical education centers, proprietary schools and on-line education programs.

Gone are the days when a college education offered relatively limited options for study and preparation for careers. Today's colleges and universities offer hundreds of relevant ever-evolving programs leading not only to bachelor's degrees, but also associate, advanced and professional degrees and career and technical certificates.

During the past decade, Missouri has made significant progress in increasing access to higher education. Educators and policymakers have expanded postsecondary education programs, kept college tuition increases low, developed new ways of delivering educational programs, and adopted proven initiatives that help students complete a college degree or a career or technical certificate in less time and at less cost.

These efforts have resulted in an increasing number of adults who have completed a degree or certificate, but more must be done to provide all Missourians with the opportunity to earn a postsecondary credential.

To achieve this goal, Missouri must adopt a holistic approach to education, one that maximizes the depth and breadth of coordination, collaboration and cooperation not only within the system of higher education but between all educational sectors and their partners in government and business.

Citizens, educators, government officials and leaders in business and industry must be willing to commit the resources needed to encourage change and innovation on Missouri's college campuses.

The Blueprint Process

TO MEET THE STATE'S higher-education needs, the Missouri Department of Higher Education, in concert with a steering committee composed of 36 thought leaders in education, government and business and industry, has created a new coordinated plan for Missouri's higher-education system.



Department staff and steering committee members reviewed numerous reports, received briefings from subject-matter experts and listened to more than 100 witnesses during nine public hearings conducted across the state between December 2014 and June 2015.

The new plan, *Preparing Missourians to Succeed: A Blueprint for Higher Education*, was approved by the state's Coordinating Board for Higher Education in December 2015. The plan focuses on five key goals:

1. Attainment

Missouri will increase the proportion of working-age adults with high quality, affordable postsecondary credentials to 60 percent by 2025.

2. Affordability

Missouri will rank among the 10 most affordable states in which to obtain a postsecondary degree or certificate by 2025.

3. Quality

Missouri will produce graduates with high-quality postsecondary degrees and certificates that are valuable and relevant to individuals, employers, communities and the state.

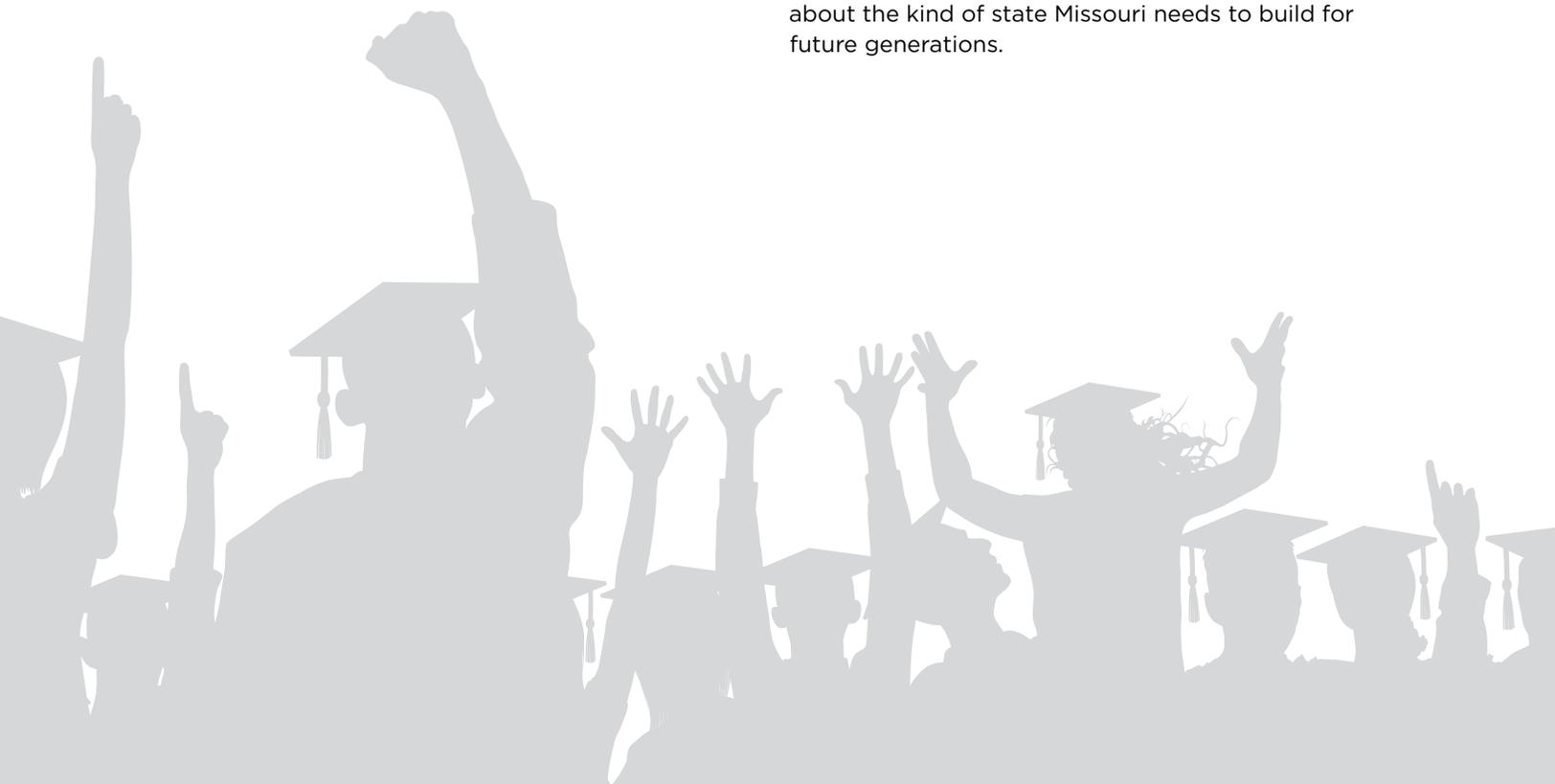
4. Research & Innovation

Missouri will be a top 10 state for investment in academic research by 2025.

5. Investment, Advocacy & Partnerships

Missouri will promote greater investment in a culture of postsecondary education through increased advocacy and powerful partnerships with education, business, government and communities.

These five goals will guide the board and the department as they seek to fulfill their mission for Missouri's higher-education system. The goals form the foundation for conversation and collaboration with elected officials, government agencies, community and business leaders, as well as providers and consumers of higher education about the kind of state Missouri needs to build for future generations.





Blueprint Goals

1



Attainment

Pages 10–17

2



Affordability

Pages 18–25

3



Quality

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4



Research & Innovation

Pages 34–39

5



Investment, Advocacy & Partnerships

Pages 40–45

Note: Game-changer strategies are denoted in italics.





Attainment

GOAL 1: Missouri will increase the proportion of working-age adults with high-quality, affordable postsecondary credentials to 60 percent by 2025.

Issues and Challenges

AS THE NATION'S ECONOMY experiences rapid and radical transformation, Missouri's future prosperity depends on a decisive response by higher education.

By 2018, more than 60 percent of jobs in Missouri will require a two- or four-year degree or a career or technical certificate. Currently, 50.6 percent of working-age adults in Missouri have a postsecondary credential, up from 48.3 percent in 2010.

“Good jobs”—defined by a 2015 report from Georgetown University's Center for Education and the Workforce as positions that pay more than \$53,000 a year—are leading the country's economic recovery and are being filled by college graduates. Of the 2.9 million “good jobs” added to the U.S. economy since 2010, about 2.8 million went to workers with at least a bachelor's degree. In contrast, “good jobs” filled by workers with a high school diploma or less have decreased by 39,000.

While increasing educational attainment is vital to Missouri's future, the type and quality of degrees earned by students and how those degrees translate into employment opportunities also must be considered.

The Missouri Department of Economic Development (DED) has identified seven high-demand workforce development areas considered essential to the state's economic success:

- ◆ Advanced manufacturing
- ◆ Energy solutions
- ◆ Bioscience
- ◆ Health sciences and service
- ◆ Information technology
- ◆ Financial and professional services
- ◆ Transportation and logistics

Many of these jobs are classified as STEM occupations, focused on science, technology, engineering and mathematics. More than 90 percent of the STEM jobs in Missouri require

education and experience beyond high school—70 percent require a bachelor's degree or higher.

By 2020, DED projects that 92 of Missouri's 100 highest-paying occupations will require at least a bachelor's degree. Of the 20 top-paying occupations, 15 will require a master's degree or higher. In all, DED estimates more than 98,000 openings in the 100 highest-paying occupations.

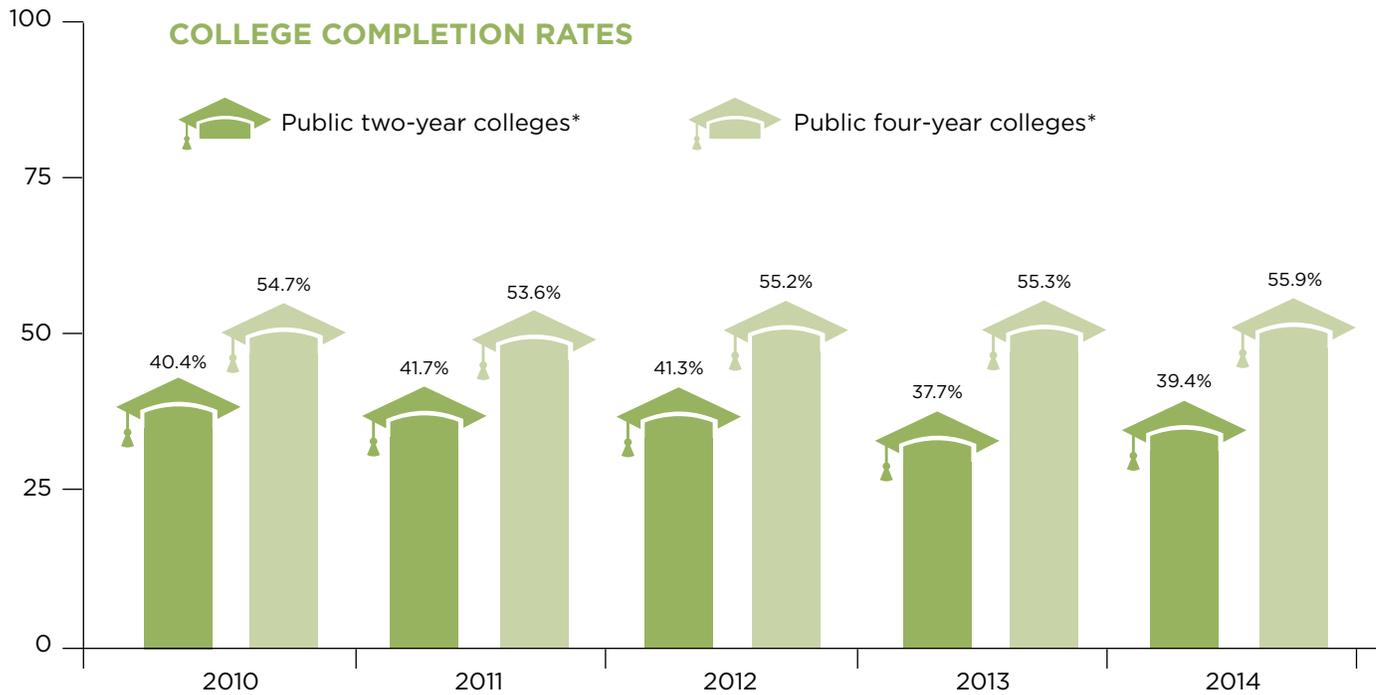
To increase degree and certificate attainment, Missouri must improve college participation rates. After several years of record enrollment, the number of students attending college has decreased by 3.6 percent over the past five years, primarily at the state's community colleges and independent institutions. Missouri must attract more traditional students, and adult learners, including veterans, to higher education and provide postsecondary education opportunities in the communities where they live and work.

The state also must increase college completion rates, which have remained fairly flat for more than a decade. In 2014, just under 60 percent of first-time, full-time students at Missouri's public universities earned a four-year degree in six years. About 39.4 percent of first-time, full-time students at the state's community colleges earned a two-year degree or transferred to a four-year school in three years. College completion rates must improve dramatically if Missouri is to achieve a workforce that is sufficiently prepared to sustain its economy.

Increasing college participation and completion will be a challenge. Many Missouri students are not prepared for the rigors of postsecondary education. In 2015, only 44 percent of Missouri seniors taking the ACT met the college readiness benchmark in mathematics. In English, 71 percent met the benchmark. More than 27 percent of high school graduates attending college in 2015 were enrolled in remedial education classes—courses for which they pay tuition but do not receive college credit.

Missouri also must work to reduce the achievement gap that persists in postsecondary education.

Some students—especially those from low income groups, minorities and those who would be first-



Source: Integrated Postsecondary Education Data System

generation college students—continue to be under-represented in higher education. Nationwide, in 2012, about 36.4 percent of African-Americans 18–24 years old were enrolled in college, compared to 42.1 percent of whites.

Student persistence—the percentage of first-year, full-time students returning to college for a second year—and graduation rates are lower for minority students than for white students. At Missouri’s public two- and four-year colleges, the persistence rate from 2013 to 2014 for African American students was 65.2 percent, compared to 78.7 percent for white students.

In 2013, just over 26 percent of African American students and 43 percent of Hispanic students who were first-time, full-time college students completed a four-year degree in six years or completed a two-year degree or transferred to a four-year school in three years, compared to 52.2 percent for white students.

African Americans also are under-represented among Missouri’s faculty ranks. In 2013, just over 5 percent of the full-time faculty at the state’s colleges and universities was African American.

About 330 faculty members were African American, compared to nearly 6,300 white faculty members.

Missouri must take action to close these gaps to provide more opportunities in education for all Missourians and meet the state’s workforce needs.

Progress

IN 2012, Missouri’s governor and the Coordinating Board for Higher Education set an ambitious goal for higher education—Missouri’s Big Goal—for 60 percent of the state’s working age adults to have a two- or four-year degree or career or technical certificate by 2025.

The percentage of working-age adults in Missouri with a postsecondary credential is growing, albeit slowly. By 2014, about 38.1 percent of adults age 24–65 had earned a two- or four-year degree, up from 33.2 percent in 2005. Degree attainment among young adults is occurring at a greater rate.

Missouri must improve college participation and completion rates and close the achievement gap for students who are underrepresented in higher education.

About 42 percent of Missourians age 24–35 have earned an associate degree or higher, an increase of 7 percentage points since 2005.

When professional certificates are included, the percentage of working-age Missourians with a postsecondary credential rises to about 50.6 percent—about 10 percent short of the 2025 goal.

If Missouri is to reach its goal, the state will have to gain about 200,000 additional working-age adults (age 24–64) with a postsecondary degree or certificate by 2025.

Since 2010, Missouri has undertaken, with the support of the governor and state legislature, several initiatives intended to increase educational attainment while enabling more students to complete sooner and at less cost. These initiatives include coordinating programs to assist students with applying to college and completing the Free Application for Federal Student Aid (FAFSA), reducing the need for remedial education, strengthening advising services for students

requiring additional assistance in “gateway” courses, pursuing alternative pathways to complete college math requirements, and assuring the seamless transfer of credits between institutions for students transferring to another institution to complete their education.

Remedial education, which all too often has resulted in poor student retention rates, is finally showing signs of major improvement. The Missouri Department of Higher Education has worked closely with colleges and universities to adopt best practices in remedial education as an important step to improve student retention and success, and the institutions have responded.

The percentage of students enrolled in remedial education classes dropped from 35.7 percent in 2013 to 28.2 percent in 2015—a decrease of 7.5 percent—following several years with little to no change. With more resources, institutions could make faster progress in effecting needed higher-education reforms.



**First-time, full-time degree-seeking students attending Missouri public colleges and universities
Source: Missouri Department of Higher Education*

Rethinking remediation

FOR NEARLY A DECADE, more than one-third of college freshmen in Missouri had to complete remedial education classes—most often in math and English—before they could enroll in specific credit-bearing courses they needed to earn a degree.

For many students, remedial education increases the amount of time and money it takes to complete a postsecondary credential. It also reduces the chances that a student will graduate at all. Math poses the biggest challenge. Statistics show that for every remedial math class a student has to take, the likelihood of that student graduating from college diminishes 50 percent.

In 2011, Missouri joined a growing number of states that were rethinking remedial education. Since that time, many of Missouri's higher education institutions have implemented changes that have reduced the percentage of students taking remedial education courses while providing the academic support they need to successfully complete college-level work.

The state's efforts have begun to pay off. Missouri's overall remedial education rate decreased 7.5 percent between 2013 and 2015. In 2015, remediation rates dropped to just over 28 percent for first-time, full-time freshman at public colleges and universities in the state.

The decline in remedial education can be attributed to a number of factors. In 2012, Missouri lawmakers approved legislation requiring the state's public postsecondary education institutions to adopt best practices in remedial education.

The Missouri Department of Higher Education hosted Completion Academies in 2013 and 2014. The academies helped five community colleges and four universities develop plans for improving college completion rates. A number of schools addressed remedial education in their plans.

The higher education institutions developed "co-requisite" courses that provide students with the extra help they need as part of a credit-bearing course.



Creating co-requisite courses was one of several strategies adopted by Southeast Missouri State University to improve its remediation rates. The university revised its math curriculum to include co-requisite courses and created a new math education center.

According to Tamela Randolph, chair of the mathematics department, the curriculum and center are helping students acquire the math skills they need during a lab class while they are enrolled in credit-bearing, entry-level math courses that are part of the school's general education requirements.

Randolph said the new approach has provided welcome change to the mathematics department.

"It is going to speed up students' progress toward graduation," she said. "It's going to be a shot in the arm when they need it."

Creating a college-going culture

AMELIA FAGIOLO and her fellow counselors spend countless hours discussing college with the students at Battle High School in Columbia. Despite their efforts, the counselors often felt like their seniors “needed more help figuring things out,” Fagiolo said.

She decided it was time to provide a student point of view. She put together a panel of undergrads from several colleges and universities for a question-and-answer session as part of the school’s 2015 Apply Missouri activities. Panel members discussed many topics, including why they decided to pursue a degree, how they manage their time and the importance of getting involved in campus activities.

The goal of the Apply Missouri program, sponsored by the Missouri Department of Higher Education, is to help students explore career opportunities and colleges, find the “best fit” for higher education, and submit applications to one or more schools they are interested in attending.

“Our goal is to get students to apply to at least one school,” Fagiolo says.

Completing college applications establishes important communication channels between students and higher-education institutions. In many cases, the colleges provide information about degree programs, financial aid, housing and other topics to help students make more informed decisions about their future.

The department created the program in 2013 to help build a college-going culture that supports the importance of postsecondary education at high schools across the state. Events are open to all seniors at participating schools but focus especially on those who would be the first in their family to attend college.

Each high school determines the type of activities that would best serve its students.



The Journey to College programs help build a culture that supports the importance of postsecondary education at high schools throughout Missouri.

Apply Missouri is one of three Journey to College programs sponsored by the department to help high school students learn more about the importance of postsecondary education and provide information about planning and paying for college.

The department’s FAFSA Frenzy program focuses on helping students and their families fill out the FAFSA—the first step to qualify for many financial aid programs. The Decision Day program celebrates seniors’ plans for higher education. Missouri high schools can participate in any or all of the programs to help their students leave high school with not only a diploma but a plan for the future.

For more information about the Journey to College programs, visit dhe.mo.gov/ppc/journeytocollege.

STRATEGIES TO IMPROVE ATTAINMENT:

1.1

Implement new policies and initiatives that help all students earn a degree or certificate in less time and at less cost, while enabling graduates to enter the workforce sooner. Tactics:

- ◆ Eliminate remedial education in favor of co-requisite models and similar proven methods.
- ◆ Develop clear and lower-cost pathways to degrees and certificates.
- ◆ Expand agreements to support the seamless transfer of academic credits.
- ◆ Expand alternative modes of delivery, including early-college, online, credit for prior learning, and competency-based education programs.
- ◆ Organize an information campaign to encourage students to seek full-time enrollment (defined here as 15 credit hours a semester).

1.2

Establish a competitive grant program to help institutions transition to proven completion strategies that can assist Missouri in achieving its Big Goal for higher education.

1.3

Raise the postsecondary education participation rates of traditional students. Tactics:

- ◆ Increase efforts to assist students in completing college admissions and financial aid applications.

- ◆ Increase collaboration among higher-education institutions and high schools to help students begin planning earlier for college and careers, with assistance from the state departments of higher education and elementary and secondary education.

1.4

Seek participation in flexible educational programs by adult students, including veterans; individuals seeking new job skills; and those with some college but no degree. Tactics:

- ◆ Make a concerted effort to increase the number of adult learners re-entering educational programs leading to the award of a postsecondary credential.
- ◆ Ensure working and place-bound students have adequate academic, career development and support services to complete a college credential.

1.5

Reduce disparities for students and faculty at Missouri's colleges and universities. Tactics:

- ◆ Raise completion rates by race, ethnicity, socioeconomic status, gender and disability by 50 percent by 2025.
- ◆ Increase efforts to recruit and retain faculty that reflect the diversity of the state.

1.6

Encourage increased collaboration between education and business partners to provide students more opportunities for career exploration that will lead to improved completion and placement rates.

50.6% — percentage of working-age adults in Missouri with a two- or four-year degree or career or technical certificate.





Affordability

GOAL 2: Missouri will rank among the 10 most affordable states in which to obtain a postsecondary degree or certificate by 2025.



Issues and Challenges

A COLLEGE DEGREE or certificate is a good value in Missouri; however, even the best value is of little significance if students cannot afford to gain access to the postsecondary education system.

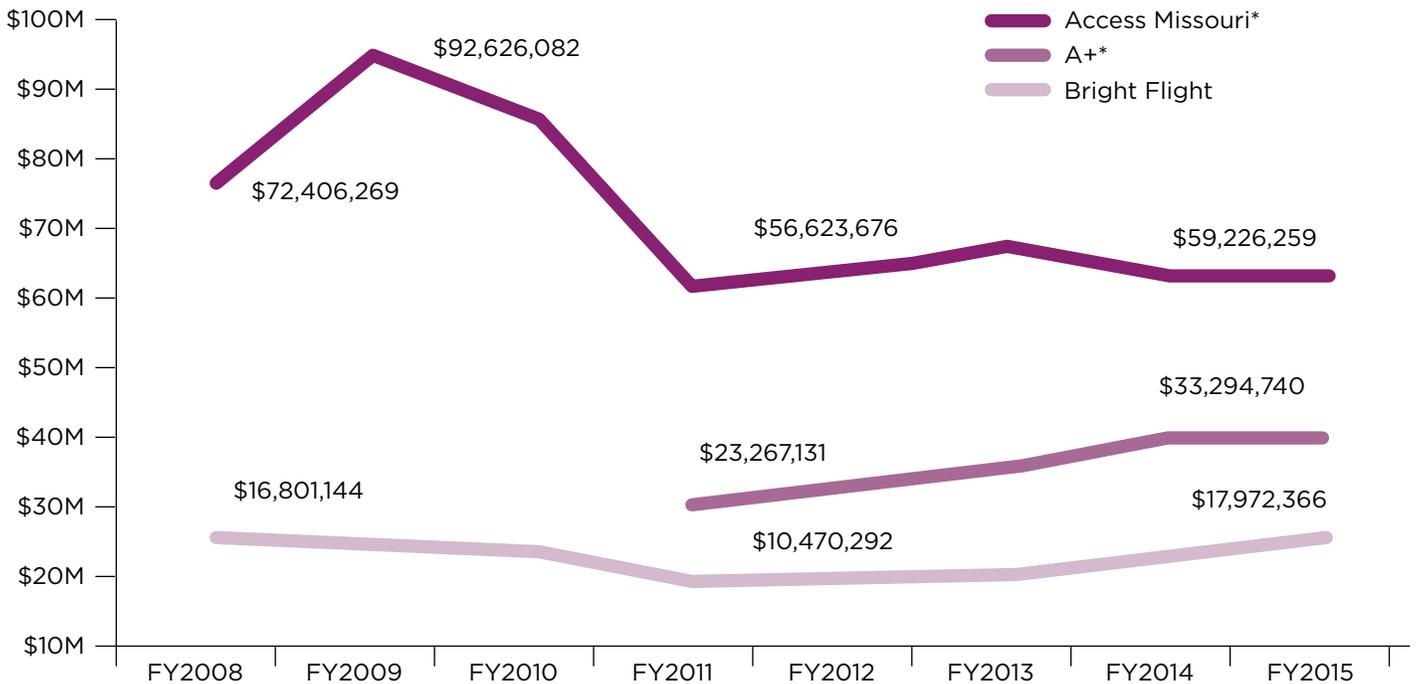
Missouri must keep college affordable—through higher-education funding; institutional, state and federal financial aid; family contributions; and institutional efficiency and effectiveness—to ensure that students have the means to pay for their education.

Missouri colleges have worked to keep tuition increases low, but students continue to cite affordability as the number one reason they do not attend college or complete a degree or certificate program.

During the past 15 years, state support of postsecondary education has faced substantial hurdles. Two major economic recessions, one of which was the most severe since the Great Depression, and waning belief in the public benefit of postsecondary education resulted in a steady drop in state financial support for higher education on a per-student basis for more than a decade. As a result, tuition and fees have surpassed state support as a percent of revenue received by most colleges and universities.

State student financial aid also has not kept up with need. During the 2012–2013 academic year, the average award provided by the Access Missouri grant—the state’s only grant based on students’ financial need—was just over \$1,100, ranking Missouri 33rd among all states. While the grant amount was increased for the 2015–2016 academic year, the program was funded at just 65 percent of the maximum amount allowed by state statute.

MISSOURI STUDENT FINANCIAL AID FUNDING



* MDHE began disbursing A+ Scholarships funds in FY2011. Source: MDHE Student Financial Assistance and Outreach

Providing a helping hand

MATTHEW ANGLIN, a sophomore at State Fair Community College, was visiting his family on Thanksgiving Day in 2015 when he found out his apartment building had burned to the ground.

He lost everything in the fire, including the books he needed to finish the fall semester and several he would need for the spring semester.

A student emergency fund established at SFCC a few years earlier helped make it possible for Anglin to stay in school as he coped with the aftermath of the fire.

“The emergency fund helped replace the school books that I lost,” he said. “It also helped cover some of my daily traveling expenses getting to and from school.”

Anglin not only was able to keep up with his classes at SFCC, he was able to continue as president of the college’s Phi Theta Kappa Chapter—a community college honor society—and as a student employee in the school’s information technology services department.

The student emergency fund was started shortly after SFCC President Joanna Anderson arrived at the college in 2013.

During her first year as president, she was asked by the director of the SFCC Foundation to designate a purpose for the annual fundraising campaign. The question brought to mind stories she had heard about SFCC faculty and staff assisting students in need, sometimes providing money from their own pockets.

“Knowing that many community college students face financial challenges, we decided to specify that the money collected through our annual fund that year would go to a student emergency fund,” Anderson said. “Finding ways to help students through a financial crisis is critical to them being able to achieve their educational and career goals.”



Finding ways to help students through a financial crisis is critical to them being able to achieve their educational and career goals.

To date, about \$30,000 has been raised for the fund. Any part-time or full-time student actively attending class can apply for emergency funds. The funds can be used for education-related materials, medical emergencies, transportation expenses and utility assistance.

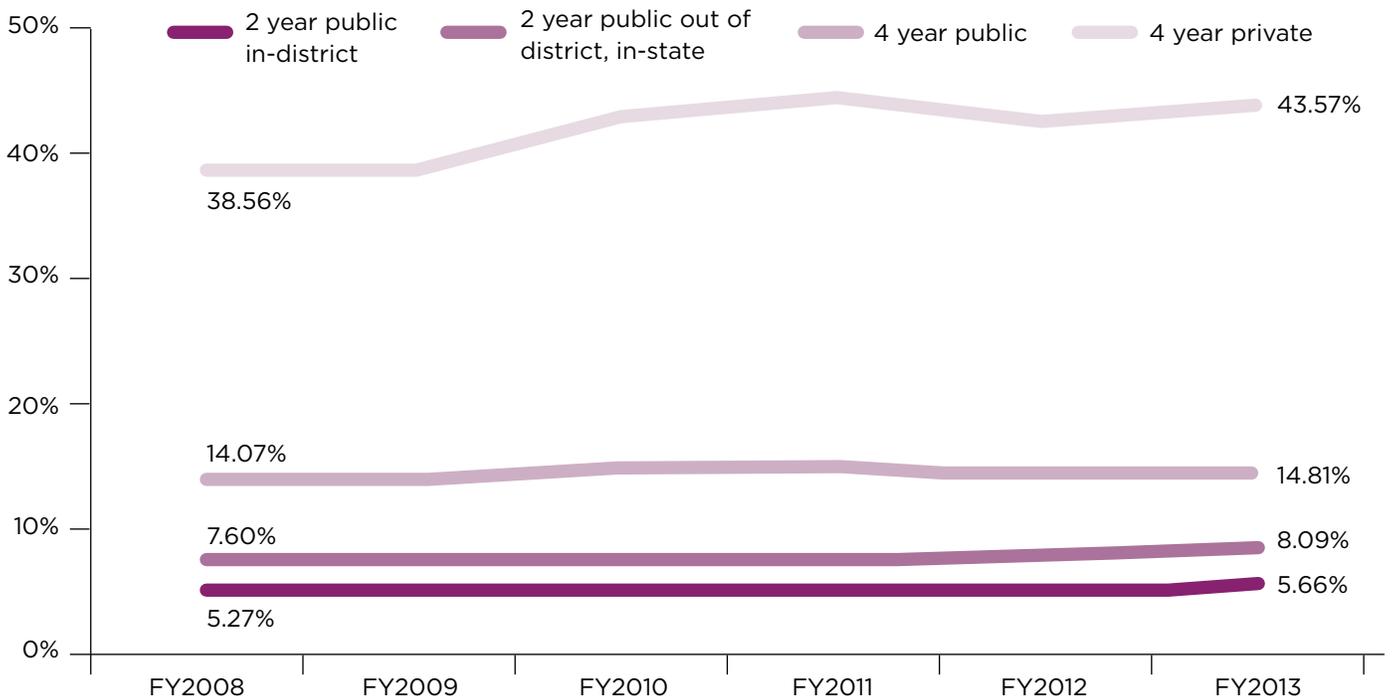
The need for a student emergency fund was reinforced recently when SFCC conducted a survey of students who had dropped out of school.

“Our research indicated the number one reason students didn’t finish was due to personal or family issues or things outside their control, such as a car or transportation problems, and many of these were financial in nature,” Anderson said.

“The goal of the student emergency fund is to help with the immediate problem so that students can keep attending class, focus on their coursework and complete their college degree,” Anderson added.

Anglin is set to receive his degree in May 2016.

AVERAGE TUITION AND FEES AS A PERCENTAGE OF INCOME*



*Tuition and fees for full-time Missouri students as a percentage of median household income.
Source: Missouri Department of Higher Education Comprehensive Fee Schedule, IPEDS

Rising tuition and flat or declining student aid increases the likelihood that more students will rely on borrowing to finance their postsecondary ambitions. About 63 percent of all postsecondary students in Missouri graduate with student loan debt.

Although below the national average, the average student loan debt for Missourians attending public and independent four-year institutions is approximately \$25,500, ranking the state 33rd in the nation.



Progress

MISSOURI HAS EMPLOYED various means to address the affordability of higher education.

The Department of Higher Education produces a number of publications about planning and paying for college that are provided to thousands of Missouri students each year. The publications offer information about federal and state student aid, financial literacy, and actions families can take to prepare for the cost of education beyond high school.

The department also sponsors several programs that promote and assist with completion of the Free Application for Federal Student Aid (FAFSA), often the gateway to student financial aid at all levels.



Although tuition increases at Missouri's public colleges and universities rank among the lowest in the nation, students still cite affordability as the number one reason they do not attend college.

Missouri does not have a centralized process for setting tuition rates, as is seen in many other states. Tuition rates are set by the governing board of each public higher education institution in Missouri based on the unique needs of each institution; however, the state has taken an interest in tuition increases in recent years.

In 2007, the Missouri legislature passed and the governor signed the Higher Education Student Funding Act (HESFA), which gives the Coordinating Board for Higher Education and the commissioner of higher education a role in reviewing the tuition setting process. HESFA establishes a linkage between tuition increases and the Consumer Price Index (CPI).

These initiatives, combined with agreements between the governor and the public institutions to hold the line on tuition increases, have helped keep higher education affordable for Missouri families.

According to the College Board's Trends in College Pricing report, tuition increases at Missouri's public colleges and universities have ranked the lowest in the nation in recent years. Since 2008, tuition at Missouri's higher-education institutions has increased just 9.2 percent, compared to the national average of 33.2 percent.

In-state tuition and fees at the state's public four-year institutions rank 13th lowest in the nation as a percent of median family income. In-district rates at public two-year institutions are 16th lowest (although not all states have community college districts). Independent four-year institutions are ranked 24th lowest.

Although awards to students through the state's student aid programs have not kept pace with

cost increases, the state has continued to invest in student assistance. In Fiscal Year 2015, Missouri invested nearly \$110 million in student aid, providing scholarships and grants to more than 70,000 students.

Of the students who receive financial aid through the Access Missouri program, nearly 50 percent are in the highest need category, equating to an annual adjusted gross income for a family of less than \$35,000. The A+ Scholarship program continues to provide access to postsecondary education to thousands of students who otherwise might never have attended college.

Research has confirmed that students who receive awards through the state's student financial aid programs persist and graduate at significantly higher rates than those who do not receive awards. According to a recent report from the Center for American Progress, the link between state aid and educational attainment is too frequently missing from the discussion of student loans and loan defaults.

While total student debt in the U.S. is a significant concern—more than \$1 trillion dollars—not all student loans are inherently bad. The major issue is whether students who take out loans complete their education.

Borrowers who earn a degree are much less likely to default on their loans than those who do not. Students who drop out of college represent an estimated 60 percent of all individuals who default on their loans. Consequently, the state's focus on improving postsecondary completion is one of the most promising avenues available to manage student debt.



STRATEGIES FOR KEEPING COLLEGE AFFORDABLE:

2.1

Convene a new state student financial aid task force to make recommendations for making the system more balanced, responsive and efficient in the use of state funds devoted to financial aid. The task force should include representation from the governor, the Missouri General Assembly, all postsecondary education sectors and the Department of Higher Education.

Note: The task force should evaluate the effectiveness of current programs, the balance between need-based and merit-based support for students, and the alignment of financial aid programs with identified state goals. The task force also should study the need for new or substantially revised existing programs designed to cover the cost for up to the first two years of postsecondary education at public community colleges and significantly reduce the tuition cost for students at all institutions, as well as incorporating sufficient flexibility and inclusiveness to respond to a variety of enrollment options, including online programs and early college courses for high school students.

2.2

Form a robust state-level work-study program designed to provide real-world job experience and promote skill development, including “essential skills” that are highly sought after in the workplace and in life.

2.3

Study the establishment of an “emergency aid” program for students experiencing sudden and unforeseen issues with financing costs beyond tuition and fees that threaten their ability to stay in school. Adopt best practices for establishing such programs at the institutional level.

2.4

Establish a higher-education trust fund to create a stable, dedicated mechanism for making earlier student financial aid decisions consistent with the college cycle of applications, acceptance letters and financial aid award announcements. The trust fund would enable the governor and the Missouri General Assembly to set aside appropriated funds on a fiscal schedule that would make the financial aid award programs more efficient and predictable for students and families.

2.5

Implement a web-based student portal that will serve as a one-stop shop for information about higher education, including applications, FAFSA rules, state student aid eligibility, transfer policies, reverse transfer, transfer-course library, and other information to help students plan for higher education and complete a degree in less time and at less cost.

2.6

Support initiatives to fund public higher education sufficiently to move “per full-time-equivalent student” funding to the national average.

2.7

Enlist private-sector support to develop a public information campaign that emphasizes the necessary role families play in financing the cost of postsecondary education for their children. The campaign should highlight the tools available to assist them in meeting that challenge, including MOST (Missouri’s 529 savings program), financial literacy programs and available sources of student financial assistance.

2.8

Recommend best practices for streamlining and/or combining common institutional functions across multiple public higher-education institutions in such areas as purchasing, human resources and IT systems, and develop a mechanism to highlight institutional progress in improving efficiencies.







Quality

GOAL 3: Missouri will produce graduates with high-quality postsecondary degrees and certificates that are valuable and relevant to individuals, employers, communities and the state.



Issues and Challenges

INCREASING COLLEGE completion rates is vital to Missouri's future, but it cannot come at the expense of academic quality. Students should graduate from postsecondary education with a high-quality degree or certificate that prepares them for the future.

Missouri must maintain high academic standards to ensure its degree and certificate programs are recognized for their quality and rigor.

Excellence in academic programs must be measured by student learning outcomes, or what students know when they complete a certificate or degree. Employers and educators have expressed their belief that Missouri needs more college-educated workers who have the intellectual skills and practical abilities to succeed in the 21st century economy. Those skills and abilities include:

- ◆ Effective oral and written communication
- ◆ Critical thinking and analytical reasoning
- ◆ Knowledge and skills applied to real-world settings
- ◆ Ability to analyze and solve complex problems
- ◆ Connecting choices and actions to ethical decisions
- ◆ Develop teamwork skills and the ability to collaborate
- ◆ Ability to innovate and be creative

According to the Missouri Chamber of Commerce and Industry's strategic plan, Missouri 2030: An Agenda to Lead, the CEOs of some of the state's largest employers believe that action to improve education and workforce preparedness is absolutely necessary, particularly in the area of "essential" or specific skills. The CEOs express strong support for producing graduates who are well prepared to demonstrate both broad knowledge and specific skills over the course of their careers.

EMPLOYERS' TOP PRIORITIES FOR STUDENT LEARNING OUTCOMES

Percent of employees saying two- and four-year colleges should place more emphasis on helping students develop these skills, qualities, capabilities and knowledge



Source: Association of American Colleges and Universities

Offering quality degrees in high-need fields

IN MARCH 2016, leaders from K-12 schools in the Kansas City area, Metropolitan Community College (MCC), the University of Central Missouri (UCM) and area businesses gathered for a groundbreaking ceremony for the Missouri Innovation Campus—a facility where students will earn degrees in high-demand fields in less time and at less cost.

The Missouri Innovation Campus program, launched in 2012, began as a collaboration among the Lee's Summit R-7 School District, the Summit Technology Academy, UCM, MCC and more than 40 business partners.

Students enroll in the program after they complete their sophomore year in high school. They take dual credit and dual enrollment courses at MCC and UCM with the goal of receiving an associate degree when they graduate from high school or shortly thereafter. The students then complete a bachelor's degree at UCM two years later.

Through the program, students can earn a degree in: systems engineering technology, drafting and design technology, computer science-software design, and computer science-cyber security.

A key component of the program is student participation in internships and on-the-job education programs at partnering businesses that include Cerner, DST, Black & Veach, Burns & McDonnell and Honeywell.

Legislation approved in 2013 established the definition of an innovation campus program as a partnership of high schools, businesses, community colleges and four-year higher education institutions and provides for the establishment of a fund to assist with the development of innovation education campus programs throughout the state.

In April 2015, voters in the Lee's Summit R-7 school district approved a bond issue that includes



\$17.5 million to build a new state-of-the-art facility to house the Missouri Innovation Campus program. Another Innovation Campus program, Northland Center for Advanced Professional Studies (CAPS), involves a collaboration that includes Northwest Missouri State University, Metropolitan Community College, local school districts and businesses.

Additional innovation campus programs are underway at locations across the state, including St. Joseph, Springfield, St. Charles, Cape Girardeau and Joplin. The programs include partnerships among dozens of high schools, community colleges, state universities and businesses.

The innovation campus programs have approached the development of their programs in a variety of ways, but they share one common characteristic. They are driven by the needs of area business and industry. This pipeline focus is intended to eliminate barriers that sometimes make it difficult for the education community to quickly respond to changing workforce needs.

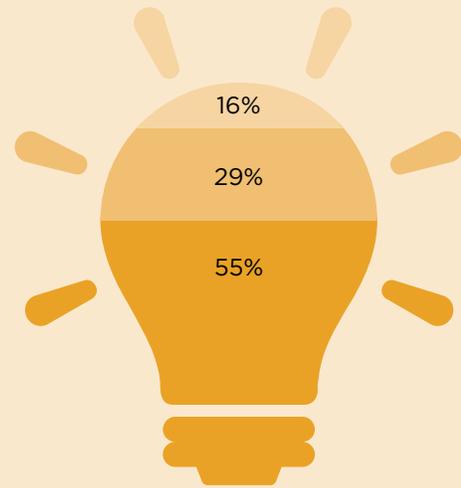
The Missouri Department of Economic Development sees the innovation campus program as an important economic development tool that will help produce a highly trained workforce vital to attracting companies to the state.

Students see it as a way to graduate from college more quickly with a quality degree that will help them establish a successful career.

WANTED: BROAD KNOWLEDGE AND SPECIFIC SKILLS

Percent of employees saying two- and four-year colleges should place more emphasis on helping students develop these skills, qualities, capabilities and knowledge

- Knowledge and skills that apply to a specific field or position
- Knowledge and skills that apply to a range of fields or positions
- Both field-specific knowledge and skills and a broad range of knowledge and skills



Source: Association of American Colleges and Universities

A study by the Association of American College and Universities reported that 95 percent of employers put a priority on “hiring people with the intellectual and interpersonal skills that will help them contribute to innovation in the workplace.” Ninety-three percent agree that “candidates’ demonstrated capacity to think critically, communicate clearly and solve complex problems is more important than their undergraduate major.”

The challenge lies in measuring these skills and abilities in such a way that the assessment is valid and transparent and allows for some level of comparability across disciplines and institutions. Some fields—such as nursing or engineering—have licensure requirements that provide a measure of program quality. Licensure examinations, however, are specific to the field and do not necessarily measure the so-called 21st century skills that many employers covet.

Academic quality is closely linked to institutional accountability and mission: What are institutions doing to ensure that students are receiving a high-quality education? As is the case with student learning outcomes, measuring the institution’s performance can be equally challenging.

While a growing number of jobs in Missouri require a bachelor’s degree or higher, a large number of jobs

can be obtained with a postsecondary certificate or associate degree. Moreover, many postsecondary certificates and associate degrees are “stackable,” meaning a student can be employable with a certificate that can lead to further certifications or credentials. Each credential builds on the previous one, assuring a seamless transition.

If Missouri is to achieve its attainment goals, it will have to provide effective career and technical education (CTE) statewide. At present, however, CTE in Missouri is balkanized. Some CTE takes place at the high school level, through 57 Career and Technical Centers, and some is delivered through the state’s community colleges and technical college.

The primary source of funding for CTE comes from the federal government, through the Perkins Career and Technical Education Act. The disbursement of Perkins funds to secondary and postsecondary schools is handled by the Department of Elementary and Secondary Education, with approximately 30 percent of the funds going to higher education.

The current CTE system has yet to reach its full potential. A highly-effective and highly-efficient system of career and technical education is crucial to Missouri’s future growth and development.

Progress

MISSOURI'S COLLEGES and universities are committed to high academic quality and continuous improvement, but the approaches vary across the state. There are numerous initiatives underway, but scaling up is a challenge.

During the past three years, the Missouri Department of Higher Education has engaged in several efforts to bring a broader perspective to the assessment of student learning outcomes through the English Pilot Project (EPP) and the Multistate Collaborative to Assess Student Learning Outcomes (MSC).

The EPP focused on an assessment methodology for a single subject area, in this case, freshman composition, through the development of a rubric. A group of 15 English faculty members, representing five public two-year institutions, six public four-year institutions and four independent institutions created the rubric.

The results of the pilot are encouraging. The methodology has the potential for faculty development, in that it brings instructors from multiple institutions together in a discussion of trends and challenges in student writing and creates an opportunity for statewide conversations about pedagogy and its implications for student learning.

The MSC was launched because many educators believed existing assessment methods (grades, standardized tests, student surveys, etc.) were inadequate to accurately gauge and consistently share information about important college-level learning outcomes.

Key elements of the MSC approach include:

- ◆ Assessing learning based on work produced by students for their college courses.
- ◆ Enlisting trained faculty members who are not serving as the course instructors to perform assessment.

- ◆ Producing measures of average student performance that allow comparisons across institutions, across types of institutions, across states and against benchmarks.
- ◆ Focusing on how results can be used to identify and replicate effective teaching methods, curricular requirements and course designs.

The collaboration, which includes 10 Missouri higher-education institutions, seeks to produce data that will allow faculty to pinpoint how to improve instruction, make curricular changes, rethink course design, and implement more effective classroom teaching and learning methods.

The evidence generated by the project, aggregated across similar institutions, is expected to be useful to states and systems of higher education for cross-institutional and/or cross-state benchmarking and for public reports that will more accurately inform governors, boards, state legislators and others interested in the quality of student learning.

After a successful pilot year, the MSC has moved into an implementation phase to scale up across participating states.

Missouri also has adopted a robust performance funding model as a means for holding institutions accountable for student learning outcomes. At the direction of the governor, a performance funding model was developed and approved by the Coordinating Board for Higher Education in 2012 and codified in state statute in 2014.

Performance indicators include freshman to sophomore retention, improvements on general education or major field assessments, improvements on professional and occupational licensure tests, graduation rates, and other measures. The 2014 legislation added a sixth measure to the CBHE model, linking institutional performance to job placement and continuing education. This measure is in development and should be in place by academic year 2017.



Employers and educators agree that Missouri needs more college-educated workers who have both broad knowledge and field-specific experience to succeed in the 21st century.

STRATEGIES TO ACHIEVE QUALITY AND EXCELLENCE:

3.1

Encourage strong business-education partnerships to increase opportunities for students to engage in more individualized or “hands-on” learning experiences, such as unpaid and paid internships with business and industry, faculty-directed research, young entrepreneurship programs, service-learning and study abroad experiences.

3.2

Pursue establishment of a statewide quasi-independent non-profit P-20 council to align public policies and partners, collaborate with regional P-20 partnerships, and inform key advocates of a seamless and functional system of education, consistent with the intent of Section 160.800, RSMo.

3.3

Support appointment of a blue-ribbon third-party panel to review Missouri’s postsecondary education system—including governance and regulatory structures, efficiency, missions, adequacy of funding, and selectivity policy—to assess how effectively the system is meeting the needs of stakeholders and make recommendations as appropriate.

3.4

Encourage colleges and universities to enable faculty to achieve success in learning outcomes by maintaining the appropriate balance between full-time and contingent faculty and providing all faculty with appropriate professional development, expanded learning support and updated teaching resources, including technical support.

3.5

Support collaboration between the Missouri Department of Higher Education and colleges and universities to achieve higher levels of student learning through better assessment and more extensive use of assessment results. The groundwork for this has been laid through the Multistate Collaborative to Assess Student Learning Outcomes (MSC) initiative and the English Pilot Project (EPP).

3.6

Participate in a comprehensive review of Missouri’s current system of career and technical education to affirm strengths and identify areas to improve efficiency and effectiveness. Review participants should include at a minimum the state departments of elementary and secondary education, higher education, and economic development; public school districts; community colleges; and the state technical college.







Research & Innovation

GOAL 4: Missouri will be a top 10 state for investment in academic research by 2025.



Issues and Challenges

TODAY'S RESEARCH BLAZES the trail for tomorrow's economy. The United States must double down on research to remain competitive in the global marketplace.

Missouri is in a position to help lead a national resurgence in research and innovation. The state has built one of the strongest business-sector research engines in America's knowledge-intensive economy, ranking 10th in the nation for business-led research investment; however, Missouri currently ranks 18th in academic-research investment.

In 2010, about \$1.08 billion was invested in research at Missouri's higher-education institutions. Approximately \$944 million separated Missouri from ranking among the top 10 states in the nation.

Discovery and invention is increasingly a transdisciplinary and inter-organizational effort. Disciplinary and institutional silos can slow the pace of innovation. Reducing research barriers between departments and institutions is essential to attract funding for academic research.

Higher-education institutions have an increasingly larger role in economic development, creating a culture of entrepreneurship for innovations originating in their research laboratories. Traditionally, universities have taken their discoveries to the marketplace through licensing to established companies, with varying degrees of success. However, today's companies are looking for technology to be "de-risked" through startup companies that are able to build prototypes, prove business models and obtain certain levels of regulatory approvals.

Universities can and must play a direct role in this de-risking, even to the point of participating



in start-up company development. This new paradigm requires universities to nurture sophisticated management and business acumen within their faculty, students and communities to develop business models, raise capital and take research innovations to market.

Progress

WITHOUT A DOUBT, research pays dividends. During the past 50 years, research and development activities have helped drive the U.S. economy by discovering new technologies and creating new industries, including pharmaceuticals, aerospace, computing and mobile devices, laser surgery, and agricultural breakthroughs.

Missouri's economy feeds on research and related activities. According to a 2007 study, the University of Missouri's basic research added one-third of a percentage point to the annual economic growth of the state's economy—even when the economy was growing at only 1.5 percent annually.

Missouri's Economic Research and Information Center estimates that the \$225 million in annual research expenditures from MU directly or indirectly supports nearly 10,000 jobs in the state.

A study by the Hanover Research Council found that every dollar spent on research in Missouri generated an additional 94 cents of spending in the state's economy. According to the Hanover report, every job created in a research park generates, on average, another 2.5 jobs, and for every dollar of academic research investment, Missouri's business sector spends nearly eight dollars.

This research infrastructure presents a strength and a challenge for the state—to construct a collaborative and synergistic network of information, resources and intellectual inquiry between the state's business and academic communities. Tighter bonds and economies of scope and scale could help both sectors leverage greater productivity and federal research funding.



Taking research innovations to market demands sophisticated management and business acumen to develop a business model, raise capital and complete the transition to the marketplace. Universities are recognizing these needs and have hired or collaborated with skilled innovators and entrepreneurs and are transforming intellectual property licensing and contractual processes to be more responsive to today's changing business climate.

The development of an educated workforce to support Missouri's research efforts will have a powerful impact on the state's economy and quality of life through higher incomes and a more engaged citizenry.



Expanding Missouri's university-based research efforts will provide more students with valuable experience in the high-demand STEM fields and boost Missouri's economy.

STRATEGIES TO SUPPORT INCREASED RESEARCH AND INNOVATION:

4.1

Foster an entrepreneurship culture by encouraging the integration of entrepreneurial internships, mentorships, community partnerships, projects, collaborative programs and incubators, and interdisciplinary and inter-institutional engagement into conventional academic pathways.

4.2

Create a pooled state and private-sector matching fund to assist Missouri's colleges and universities in successfully pursuing federally sponsored research grants. A standing matching fund would better enable the state's researchers to "get in the game" when competing with other states for time-sensitive research grants.

4.3

Encourage collaboration between business and university sectors through flexible policies regarding ownership of intellectual property (IP), especially IP arising from industry-funded research.

4.4

Develop a faculty-led research portal that connects researchers across institutions and departments whose diverse expertise, projects and resources may present opportunities for collaboration and greater access to federal, state and private-sector research funding.

4.5

Coordinate statewide training events to help faculty and researchers navigate the process of technological and idea transfer from university laboratories to the marketplace.

4.6

Encourage incentives and recognition for university faculty and researchers who successfully transition laboratory innovations to publicly available products and services.

18th—Missouri's ranking for academic research investment. Approximately \$1.08 billion was invested in 2010.

Creating entrepreneurial opportunities

MISSOURI'S COLLEGES and universities are making great strides in establishing an educational climate that spurs research, innovation and entrepreneurship. Those efforts are paying off.

Since 2010, the four University of Missouri campuses and Washington University have generated more than \$40 million in cumulative royalties and licensing income. In 2012, Missouri universities generated 172 patent applications, 11 start-up businesses and 306 new inventions.

Colleges and universities across the state are working to increase academic research and investment in Missouri. The University of Missouri's Fast Track Program provides funding for faculty members to develop, test, perform prototype construction and conduct market analysis for innovative technologies emerging from any of the four University of Missouri campuses in Columbia, Rolla, Kansas City and St. Louis. The goal is to promote industry collaboration, licensing and the creation of new companies. Program funds are not used for basic research but instead are used to promote the commercial potential of discoveries identified in the laboratories.

Business incubators and accelerators provide early-stage companies with the resources necessary to move a company from startup through the growth phase of the business cycle. These resources can include mentorship, operational guidance and seed funding after completion of designated courses. Incubators and accelerators located in the Kansas City and St. Louis regions are becoming the hub of entrepreneurship in the geographical region.

Technology incubators and wet labs also have been established in more rural parts of the state including St. Joseph, Joplin, Rolla and Cape Girardeau.

Other academic research efforts in Missouri include:

- ◆ Missouri State University's Springfield Innovation, Inc. promotes scientific research and technology and develops commercial applications. The goal is to help entrepreneurs locate the resources



and expertise they need, create effective collaborations, and pull the resources together that will help the budding businesses become successful.

- ◆ Southeast Missouri State University's Douglas C. Greene Center for Innovation and Entrepreneurship provides an undergraduate major in entrepreneurship and an MBA program focusing on entrepreneurship. The university provides entrepreneurship minors in a number of fields including agriculture, biomedical sciences, engineering technology, fine arts and health care management.
- ◆ The University of Missouri's Entrepreneurial Scholars and Internship Program is designed to create a steady stream of entrepreneurs who are capable of taking their innovative ideas to the market as new business ventures. Students enroll in entrepreneurial coursework, work with a mentor, and participate in an entrepreneurial internship to develop necessary skills.
- ◆ The University of Missouri-Kansas City Regnier Institute and the Department of Global Entrepreneurship and Innovation offer undergraduate majors in entrepreneurship and master's and doctoral degrees in entrepreneurship. UMKC also offers an academic minor and certificate programs in entrepreneurship across a wide variety of other academic majors.





Investment, Advocacy & Partnerships

GOAL 5: Missouri will promote greater investment in a culture of postsecondary education through increased advocacy and powerful partnerships with education, business, government and communities.



Issues and Challenges

REACHING MISSOURI'S higher-education goals will require unprecedented public support, investment and collaboration among education, business and community leaders.



Increasing postsecondary education attainment is a top priority for the Missouri Department of Economic Development, the Hawthorn Foundation and the Missouri Chamber of Commerce and Industry.

The path to success runs through postsecondary education. Yet many of the best jobs in high-demand fields remain vacant due to a lack of qualified candidates, thus slowing economic growth.

Nearly all Americans (96 percent) say having a degree or certificate beyond high school is important to an individual's financial security, according to a 2014 poll conducted by Gallup and the Lumina Foundation. About 65 percent say earning more money is a very important reason to get an education beyond high school.

Of Americans who do not have a postsecondary credential, a majority agree that they would feel more secure in their job and their financial future if they did have one. More than 40 percent of Americans without a degree or certificate say they have thought about going back to school to earn one.

The public's belief that higher education is important to their financial security is not misplaced.

While the belief in the promise of higher education is well documented, many Americans also have strong misgivings about their ability to pay for it. Some have concerns about the ability of colleges and universities to control cost and price. Reconciling these views is imperative.

Communicating more clearly to Missourians about the benefits of earning a degree or certificate is key to increasing higher-education investment in the state. While most believe in the importance of higher education, the full extent of its value can remain obscured by sheer complexity and competing public priorities.

A fresh presentation of the facts can solidify and augment Missouri's existing cultural bent toward higher learning. Renewed visibility in the finite space for public investment and attention depends on continual public engagement. Many governmental endeavors are rightly important to Missourians; higher education will not maintain its seat at the table through polite silence, but through active dialogue about value.

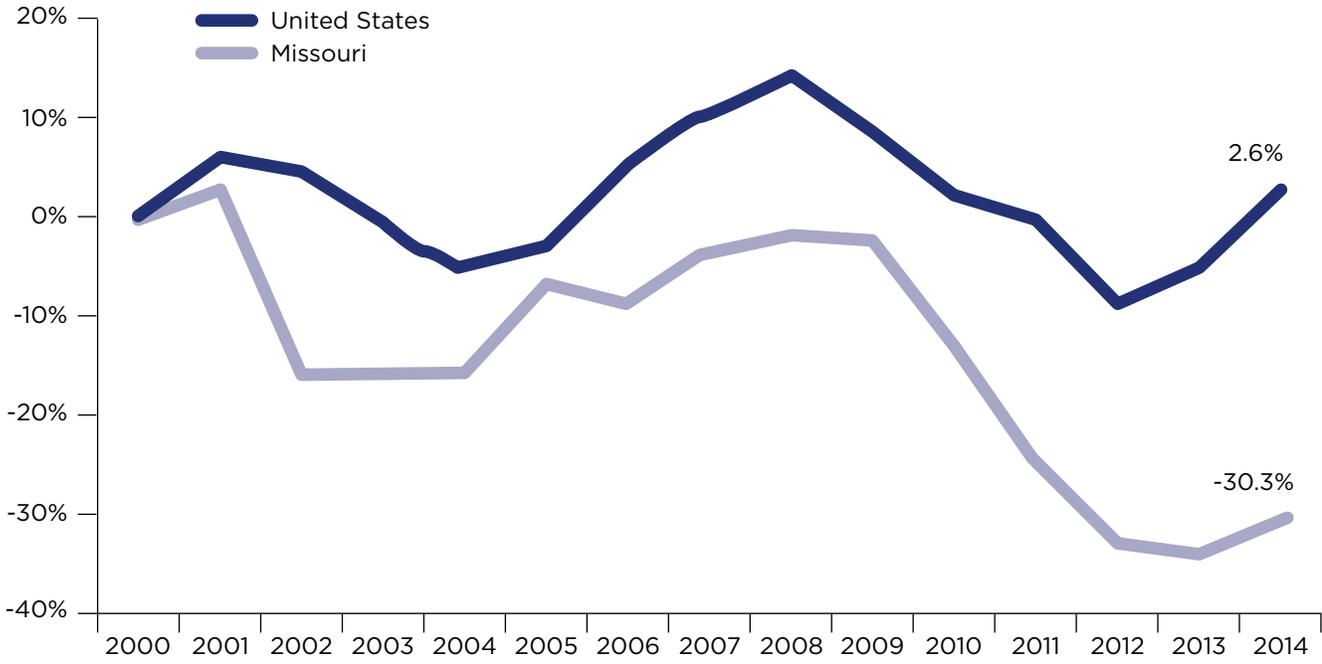
Higher education must engage state policymakers and the constituents they are elected to serve with greater urgency. Constituents include those with long family traditions of higher education and those without, young people, retirees, veterans, the under- and unemployed, community organizations, businesses searching for skilled workers, and many others.

For more than a decade, Missouri's investment in higher education declined. From 2000 to 2014, state support for higher education per full-time-equivalent student decreased 30.3 percent, compared to a decline nationally of 2.6 percent during the same time period. The result has been increased class sizes, continuing dependence on outdated classroom and laboratory technologies, and greater reliance on adjunct faculty.

Nationwide, the decline was 2.6 percent during the same period.

In recent years, state funding for higher education has taken a positive turn. Performance funding for

STATE SUPPORT FOR HIGHER EDUCATION*



*Funding per full-time equivalent student
Source: SHEEO State Higher Education Funding Report

public colleges and universities, funding for capital improvement projects and increases for several of the state’s student financial aid programs have injected some much-needed revenue into Missouri’s higher-education system.

Increased support for higher education will be necessary for more Missourians to earn a degree or certificate. Colleges and universities are poised to make dramatic progress in expanding and developing partnerships on a statewide scale to increase awareness of the importance of education beyond high school and improve support for higher education in Missouri.

Progress

THE TIME IS PAST when the education and business sectors in Missouri can afford to

go it alone. Rational public policies affecting the economic vitality of the state require unprecedented collaboration if they are to achieve their mutual goals.

A closer long-term relationship between higher education and Missouri business and industry is critical for higher education to progress in Missouri. Strong education-business partnerships can provide college students more opportunities for hand-on experience so that they might gain better insights into the nature of work in their chosen professions. Missouri needs to develop aggressive advocacy efforts to support these types of initiatives.

Partnerships among higher education, public education and Missouri’s business community have been formed in the past. The landscape of Missouri’s economy is dotted with examples of thriving relationships between specific businesses and public and private colleges and universities.



The path to success runs through postsecondary education. Reaching Missouri's higher-education goals will require public support, investment and collaboration among education, business and community leaders.

Examples include the innovation partnerships in Lee's Summit, the Northlands area of Kansas City, and Springfield, as well as the vast regional partnership in St. Louis that is identifying and addressing projected future workforce needs there. The persistent challenge is to develop ways to scale up these efforts to meet the growing demand for highly skilled employees.

The Missouri Department of Higher Education is participating in the Missouri Chamber of Commerce's Workforce Alliance, which includes representatives from business, public education and higher education. The alliance is identifying concrete action steps that could help close the perceived gap between the skills graduates have mastered and those skills that businesses say are needed to succeed in the fast-paced, ever-changing business environment. The chamber's initiative will sharpen the case for the value of higher-education investment in Missouri.

STRATEGIES FOR BUILDING A STRONGER CULTURE OF EDUCATION AND SKILL TRAINING THROUGH INVESTMENT, ADVOCACY AND POWERFUL PARTNERSHIPS:

5.1

Develop powerful partnerships with education, business, government and communities to strengthen the case for a strong system of higher education in Missouri. Tactics:

- ◆ *Form a Missouri Business and Education Coalition to advance a public agenda focused on education, skill training and jobs.*

- ◆ *Develop a broad-based communication strategy to promote a culture of educational attainment among students and their families and foster a sense of urgency about the need to make the hard investment decisions that will lead to quality educational opportunities for all. Seek private-sector support for the initiative.*

5.2

Incent the private sector to provide broad support for initiatives that offer practical experience, mentoring programs and career advising. Tactics:

- ◆ *Fund innovation grants to support programs geared to meet the state's educational attainment and skills training needs.*
- ◆ *Expand and enhance partnerships between postsecondary institutions and business and industry for delivering customized employer training and onsite workforce training.*
- ◆ *Engage employers to be mentors in the classroom and increase the number of students exposed to the workplace through paid internships, job shadowing, work study and other means. Develop pathways programs, such as the Missouri Innovation Campus and Pathways to Prosperity.*

Partnering for progress

IT IS NO SURPRISE that strategic plans developed by the Missouri Department of Economic Development and the Missouri Chamber of Commerce share common ground. While their focus is to increase economic development across the state, both organizations cite education as one of the most important factors in Missouri's future, and they point to the development of strong partnerships as key to achieving a more highly educated workforce.

The Department of Economic Development's *Strategic Initiative for Economic Growth* was released in 2011. The plan's first strategy calls for Missouri to "attract, retain and develop a workforce with the education and skills to succeed in a 21st century economy."

The strategy addresses tuition costs, college- and career-readiness skills and the formation of partnerships with the state's colleges and universities to help increase the number and proportion of students who remain in Missouri after graduation.

Missourians from every region of the state who attended Strategic Initiative Regional Forums were "adamant that education should be Missouri's number one strategic priority," the report stated.

The Chamber's plan, *Missouri 2030: An Agenda to Lead* was developed in 2015. The plan's number one "driver" is preparing the workforce. According to the plan, one-on-one interviews with the CEOs of many of the state's top companies show that more than 90 percent believe "actions to improve education and workforce preparedness were absolutely necessary."

The plan states that the chamber will promote an approach that will allow citizens to understand the opportunities that exist for current and future employment and the specific skills that are necessary to take advantage of those opportunities.

The plan's first goal is to increase the voice of business and industry on education and workforce issues at the state and national policy levels. The second goal is to align workforce needs with



outcomes from Missouri's education systems by facilitating research and collaboration between business leaders, educators, policymakers and workforce development professionals.

Colleges and universities across the state look to companies, governmental agencies and community organizations to provide practicum experiences and internships for college students. They rely on alumni and local businesses and industries to contribute to capital improvements and scholarship funds.

Clearly, higher education cannot achieve its goals alone. Partnerships and advocacy are essential to boost investment in the state's higher education system to help more Missouri students earn a degree or certificate.

Steering Committee

THE COORDINATING BOARD FOR HIGHER EDUCATION and the Missouri Department of Higher Education express their appreciation to the members of the Coordinated Plan Steering Committee. The time and expertise they devoted to the development of the *Blueprint for Higher Education* was essential to producing a plan that ultimately will benefit all Missourians.

Jim Anderson, Steering committee co-chair, Vice President of Marketing and Public Affairs, CoxHealth, Springfield

Deb Hollingsworth, Steering committee co-chair, Vice President of External Affairs, AT&T (retired), St. Louis

Dr. Jon Bauer, Vice Chair, Missouri Community College Association, and President, East Central Community College, Union

Angela Bennett, Regional Director, U.S. Department of Education Office of Civil Rights (retired), and Curator Emerita, University of Missouri Board of Curators, Kansas City

Berla D. Bieller, Retired Teacher, Guidance Counselor, Broseley

Dr. Michael Bleich, Missouri Nurses Association, and President and Maxine Clark and Bob Fox Dean and Professor, Goldfarb School of Nursing at Barnes Jewish College, St. Louis

Gena Boling, President, Missouri Association of Student Financial Aid Personnel, Rolla

Marie Carmichael, Owner and President, Affordable Homes Development Corporation, Springfield

Jean-Paul Chaurand, Chief Operating Officer, Guadalupe Centers, Inc., Kansas City

Dr. Don Claycomb, President, State Technical College of Missouri, Linn

Robin Coffman, Chief of Staff, Missouri Department of Elementary and Secondary Education, Jefferson City

Brian Crouse, Vice President of Education, Missouri Chamber of Commerce and Industry, Jefferson City

Cliff Davis, Chair, Missouri Community College Association, and President, Ozarks Technical Community College – Table Rock Campus, Branson

Pat Dillon, Community Liaison, Mosaic Life Care, St. Joseph

Mike Downing, Director, Department of Economic Development, Jefferson City

Dr. Arlan Dykstra, Provost and Senior Vice President for Academic Affairs, Missouri Baptist University, St. Louis

Mike Franks, Chief Executive Officer, Neosho Area Business & Industrial Foundation, Inc., Neosho



Dr. Charles Gooden, Dean of Student Affairs, Harris-Stowe State University (retired), St. Louis

Dr. Kevin Gwaltney, Executive Director, Joint Committee on Education, Jefferson City

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Mark James, Chancellor, Metropolitan Community College, Kansas City

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Dalton Wright, Former Vice Chair, Missouri Coordinating Board for Higher Education, Lebanon

Dr. David Russell, Commissioner, Missouri Department of Higher Education, Jefferson City

Dr. Rusty Monhollon, Assistant Commissioner of Academic Affairs, Missouri Department of Higher Education, Jefferson City

Dr. Mike Nietzel, Senior Advisor on Higher Education and Workforce Development, Missouri Governor's Office, Jefferson City





Preparing Missourians to Succeed

A Blueprint for Higher Education

Missouri Department of Higher Education

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