



Tab 23

2019 Equity in Missouri Higher Education Report

Coordinating Board for Higher Education
December 11, 2019

BACKGROUND

In a concerted effort to meet the “Big Goal” of having 60 percent of Missourians hold a high-quality postsecondary credential by 2025, the Missouri Department of Higher Education and Workforce Development began the process of undertaking a multi-year research effort to identify equity gaps and disparities in educational attainment. This research agenda aligns to goal 1.5 in *The Blueprint for Higher Education*, which commits the state to reduce inequities in higher education by race/ethnicity, socioeconomic status, gender, and disability, in addition to creating a postsecondary faculty that proportionately reflects the diversity and demographic makeup of the state.

CURRENT STATUS

This report outlines inequities and disparities among subpopulations of the state—race/ethnicity, gender, age, income, parental education, and geographic location—in terms of postsecondary access and enrollment, preparation, and progress and retention. The data analyzed reveal that the most persistent equity gaps occur along racial/ethnic lines, by income, and by parental education levels.

The results from this report were released at the Equity in Missouri Higher Education Summit on October 30, 2019. A pre-summit workshop was held the day before the summit, where stakeholders from community organizations, chambers of commerce, business and industry leaders, and representatives from public postsecondary institutions were invited think through key issues contributing to the equity gaps presented in the report, and present ideas and recommendation to overcome those inequities. The following are highlights from the report.

Postsecondary Access

Undergraduate enrollments aggregated at the statewide level generally match the demographic profile of Missouri, however this trend begins to break down when disaggregated by sector, selectivity, and program enrollment.

- Low-income students in Missouri are almost twice as likely to be enrolled in community college, and more adult students attend community colleges than four-year universities.
- Missouri’s low-income, first-generation, and Black students are all disproportionately enrolled in open enrollment institutions.
- Missouri’s low-income students are underrepresented in STEM and business/communications programs.
- Despite increases, Missouri’s female students are also underrepresented in STEM and business/communications programs.
- Black students are underrepresented in education and health professions programs.

College Preparation

Academic preparedness can impact access to and progress through higher education as well as completions and success measures, and can impact merit-based financial aid.

- Over the last 10 years an average of 4.9 percent of Black students entered college with some college credit. For low-income students, the average was 21.3 percent.
- Low-income students and students of color generally score lower on the ACT exam, and are more likely to enter a public postsecondary institution without an ACT score.
- Students of color, low-income students, and first-generation students are twice as likely to enroll in remedial courses when compared to their peers.

Progress and Retention

The trends identified in access and preparation continue as students progress through higher education, which can impact time to, or even likelihood of, completion.

- White and Asian students are more likely to be on track to graduate on time than Black and Hispanic students.
- Low-income and first-generation students are less likely to be on track to graduate on time.
- There is general parity along gender lines for fall to fall retention, but not with race, income, or parental education levels.
- Wide gaps in satisfactory academic progress (2.0 GPA and 24 credit hours per year) persist among all races, despite progress made by Black and Hispanic students.
- Adult learners are less likely to achieve satisfactory academic progress than their younger peers.
- Urban students are less likely to make satisfactory academic progress, but the biggest disparity in this metric is by income levels.

NEXT STEPS

Eliminating educational disparities represents more than a completion agenda—it is both a moral and civic imperative requiring commitment and collaboration to a shared vision among institutions, community organizations, and government to ensure that every Missourian has the opportunity to learn and succeed. While the 2019 report focused on postsecondary access and progress, the 2020 report will focus on success and the 2021 report on affordability.

Office of Postsecondary Policy staff will identify four to five recommendations from the pre-summit workshop to serve as areas of focus, and coordinate with regional teams to work on implementing these recommendations to reduce equity gaps around the state. Additionally, staff have met with representatives from DESE to identify areas in which the two departments can work collaboratively to increase equity in education around the state. This work is ongoing, and a report of these efforts will be presented at the 2020 Equity Summit.

RECOMMENDATION

This is an information item only.

ATTACHMENT

- 2019 Equity in Missouri Higher Education Report



MISSOURI
HIGHER EDUCATION
EQUITY
PROJECT



**2019 EQUITY IN MISSOURI
HIGHER EDUCATION REPORT**

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LETTER FROM THE COMMISSIONER

Z O R A M U L L I G A N

One of the greatest pleasures of being Commissioner of Higher Education is attending commencement ceremonies on campuses around the state. The moment a student crosses the stage and becomes a college graduate is the moment their life changes: they will have more choices, more economic security, and more social capital to share with their children.

And the students crossing that stage are diverse. Each individual has their own style, story, and skin color. They wear boots, or kente cloth, or hijabs, or burqas, or the highest heels I've ever seen. They use wheelchairs or walk with therapy dogs or breathe deeply to manage anxiety. As each fortunate student crosses the stage, their support system glows in the audience. Less lucky students cross the stage with no one cheering them on, but their heads held high and the same diploma folder in their hands.

As joyful as these events are, I sometimes imagine another gymnasium — this one filled with the students who started school with this class but haven't finished. Data indicate that at many institutions this gym would be bigger than the one students are graduating in, and that it would be much more diverse. The choices these individuals face will be harder than those of their graduating peers: fewer opportunities, lower wages, less job security, and (for many) more debt.

As higher education leaders, we must focus on both of these sets of experiences. Each graduating student tells an important story of individual initiative and a system that, one way or the other, ultimately worked for them. Understanding their successes provides valuable information. But we also have to see the students in that other gym, the ones who aren't graduating.

This report aims to do both of those things: to see differences in access and progress based on race, age, economic background, geography, and gender, and also to gain insight from individual stories that have shown promise in reducing those differences in access and progress.

We hope that this report will provide valuable information, but will also be a tool to inform and inspire action. We are grateful for the many partners who helped us gather and publish this information. The next steps are the most difficult ones, and your partnership will continue to be essential and appreciated.

A handwritten signature in black ink that reads "Zora Mulligan". The signature is fluid and cursive, with a long, sweeping underline.

Commissioner of Higher Education

ACKNOWLEDGMENTS

THANK YOU TO OUR GENEROUS SPONSOR:



THANK YOU TO OUR PARTNERS:

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Rebecca Merlenbach, The Ayers Foundation
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Leslie Myrick, University of Missouri-Columbia
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DEMOGRAPHICS OF MISSOURI

2013-2017 ACS 5-YEAR ESTIMATES

GENDER



AGE

22.9%

>18 1,388,554

9.7%

18-24 586,651

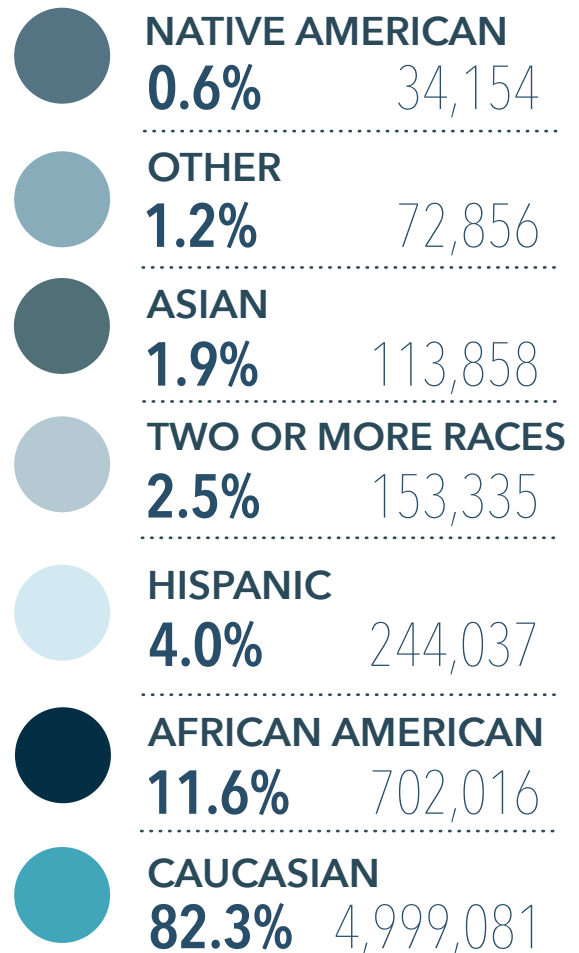
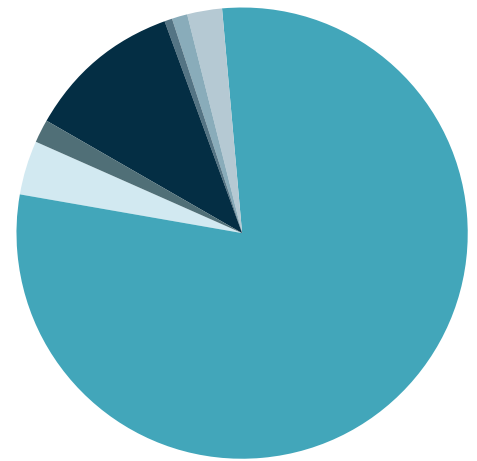
51.7%

25-64 3,142,727

15.8%

65+ 957,368

RACE & ETHNICITY



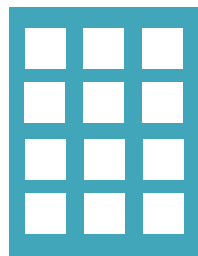
RESIDENTIAL LOCATION



RURAL

36.6%

2,225,450



URBAN

63.4%

3,849,850

NEARLY 1 IN 3 MISSOURIANS LIVES AT OR BELOW

200% OF POVERTY LEVEL

MISSOURI EQUITY REPORT 2019

INTRODUCTION

The Missouri Department of Higher Education & Workforce Development (MDHEWD) works to make postsecondary opportunity more readily available for all Missouri residents, regardless of race, age, income level, parental education, and geographic location. Postsecondary education contributes not only to Missouri Governor Mike Parson's goal of workforce development, but it also leads to increased economic activity, increased wages, better overall conditions in the state, and improved quality of life for our residents.

Missouri must eliminate educational disparities for underserved and underrepresented populations if it is to achieve its Big Goal — 60 percent of working-age adults holding a high-quality postsecondary credential by 2025. *Helping Missourians to Succeed: A Blueprint for Higher Education* commits the state to reduce inequities in higher education by raising completion rates by race, ethnicity, socioeconomic status, gender, and disability by 50 percent by 2025. It also aims to increase efforts to recruit and retain faculty that reflect the diversity of the state.

Focus

The disparities outlined in this report are a result of systemic barriers to postsecondary access, progress, and attainment and will require significant structural changes. To serve Missouri residents more equitably, a paradigm shift is needed to rethink the way postsecondary education is delivered and bolster the supports individuals need to successfully progress towards completion of a quality postsecondary credential or degree. The department works to coordinate efforts around the state to reduce barriers, disparities, and gaps across all phases of postsecondary education, and to develop policies that reach all Missouri residents, revisiting current policies and practices as needed.

This report outlines inequities and disparities among subpopulations of the state — race/ethnicity, gender, age, income, and geographic location — in terms of postsecondary access, preparation, and progress, regardless of impact, rather positive, negative, or neutral. Additionally, it identifies a set of guiding questions to lead the work going forward, which will include areas for further research and action. It also includes vignettes and case studies which provide context through individual lived experiences, and highlights of best practices from around the state. This report is the first in a series which examines disparities across the continuum of postsecondary education; future reports will focus on success and affordability.

Why this work is important

Eliminating educational disparities represents more than a completion agenda — it is both a moral and civic imperative requiring commitment and collaboration to a shared vision among institutions, community organizations, and government to ensure that every Missourian has the opportunity to learn and succeed.

This is captured in Article I, Section 2 of the Constitution of Missouri, which states:

“That all constitutional government is intended to promote the general welfare of the people; that all persons have a natural right to life, liberty, the pursuit of happiness and the enjoyment of the gains of their own industry; that all persons are created equal and are entitled to equal rights and opportunities under the law; that to give security to these things is the principal office of government, and that when government does not confer this security, it fails in its chief design.”

Research indicates that increased educational attainment correlates with increased private benefits. The personal benefits of education have long been documented, with the most commonly associated benefit being an increase in earned wages. Economic research indicates that each additional year of education correlates with a 10 percent increase in wages,¹ and that, on average, a higher postsecondary credential results in higher wages; for example, the earning power of an associate degree is higher than that of a high school diploma, and a bachelor's degree results in higher earnings than an associate degree. In addition to these private market returns, there are private nonmarket benefits that directly impact the individual, such as health, longevity, and quality of life, as well as nonmarket benefits to the individual's family, which include lower infant mortality, increased child health, increased child education and cognitive development, and increased happiness or well-being.²

Economists have come to recognize that while education is, in part, a private good, as it generates private benefits, it is also partly a public good, as it generates external social benefits that “spillover to benefit others in the society, including others in future generations.”³ These external civic benefits include reduced poverty and lower violent crime rates. Further, economists estimate that welfare costs to state governments may be reduced by 91 percent if all high school graduates complete a bachelor's degree.⁴ It is exactly these externalities of education that should be of particular interest to policymakers and stakeholders, especially for those operating within the public sector, and for those in local, state, and federal government.

According to economic research, higher levels of education also increase worker productivity, which contributes to overall economic growth.⁵ In addition to increased productivity, education increases the innovative capacities of economies (through technology and other means) which fosters growth and facilitates the dissemination of knowledge needed to implement new technologies.⁶

Because of this moral imperative—that the state government of Missouri must ensure that all people are entitled to equal opportunities under the law, and public civic benefits of higher education—stakeholders, leaders, and policymakers must work to secure an equitable future for all Missourians.

1. E. R. Eide & M. H. Showalter (2010) “Human Capital”, In D. Brewer & P. McEwan, eds., *Economics of Education*, pp. 27-32.

2. W. W. McMahon (2010) “The External Benefits of Education”, In D. Brewer & P. McEwan, eds., *Economics of Education*, pp. 68-80.

3. *Ibid.*, p. 68.

4. *Ibid.*, p. 75.

5. Robert Hall (2002). “The value of education: evidence from around the globe.” In *Education in the Twenty-first Century*, ed. by Edward Lazear, pp. 25-40. Hoover Institution Press.

6. E. Hanushek & L. Woßmann (2010) “Education and Economic Growth,” In D. Brewer & P. McEwan, eds., *Economics of Education*, pp. 60-67.

MISSOURI EQUITY REPORT 2019

KEY DEFINITIONS

“ THE MISSOURI EQUITY PROJECT IS VERY PERSONAL FOR ME. I UNDERSTAND THE URGENCY BEHIND THIS WORK AFTER WATCHING MY COMMUNITY REMAIN TRAPPED IN INTERGENERATIONAL POVERTY WITH NO HOPE FOR A BETTER FUTURE. I GREW UP ON THE NORTH SIDE OF ST. LOUIS CITY WHERE DRUG DEALERS WERE THE NEIGHBORHOOD HEROES, AND THE SCHOOLS WERE DETENTION CENTERS AT BEST. MOST OF MY CHILDHOOD FRIENDS ARE DEAD OR IN JAIL (INCLUDING MY BEST FRIEND AND MY LITTLE BROTHER) AND MOST OF THE YOUNG PEOPLE STILL DON'T EXPECT TO ESCAPE A LIFE OF POVERTY AND CRIME UNLESS THEY EARN AN ATHLETIC SCHOLARSHIP OR SCORE A RECORD DEAL.

I HAVE HAD SURVIVOR'S GUILT BECAUSE OF THE PEOPLE WHO I LEFT BEHIND, SIMPLY BECAUSE THEY DID NOT HAVE THE SAME OPPORTUNITIES I HAD. I HAVE DEDICATED MY CAREER TO USING EDUCATION AS A TOOL TO EMPOWER YOUNG PEOPLE AND HELP THEM TRANSFORM THEIR LIVES. ”

– Alan Byrd, Vice Provost of Enrollment Management,
University of Missouri-St. Louis

Equity in higher education is the idea that a student's life circumstances should not dictate chances of success. It is often measured by observing areas where it does not exist: the gaps among learners from varying geographies; between genders; races or ethnicities; and by income level. **These differences in outcomes are known as achievement gaps.**

Identifying achievement gaps is the first step to enacting **Missouri's Equity Lens** – to create a culture of equity across all postsecondary education providers – to ensure every learner is treated with dignity and adequately prepared to make meaningful contributions to society.

MDHEWD staff recognize this report is limited in scope due to the availability of data. Future research will be conducted to identify inequities among additional marginalized populations including LGBTQ+, foster and homeless youth, persons with disabilities, and veterans. Because of limitations, only data on undergraduates at public institutions are included in this report.

The data for the equity report come from a variety of sources including publicly available databases, such as the American Community Survey (ACS) and the Integrated Postsecondary Education Data Statistics (IPEDS), as well as internal MDHEWD collections, and aggregate information on high school graduates from the Missouri Department of Elementary and Secondary Education (DESE).

Information on Missouri's population profile primarily comes from the ACS from the U.S. Census Bureau which collects vital information about population and housing.

The state data include the Enhanced Missouri Student Achievement Study (EMSAS) records and the Missouri Financial Aid database (FAMOUS). EMSAS data, collected on an annual basis includes student record level data for all of Missouri's public universities and colleges for fall enrollments, term completions, and credential completions. DESE supplied information regarding high school graduates across the state.

KEY DEFINITIONS

Staff used IPEDS to determine the demographics of the institutions' faculties. IPEDS consists of 12 surveys that are collected each year from postsecondary institutions that distribute federal financial aid. The survey components consist of institutional characteristics, completions, enrollment, financial aid, graduation rates, outcome measures, admissions, finance, human resources and libraries.

Where possible, MDHEWD staff used methodologies and definitions similar to the ACS data, including race/ethnicity and sex in order to have standardized and comparable data. While staff recognize that no data source will ever be 100 percent perfect, staff are confident that the data presented in this report are accurate and factual.

For the purpose of this report:

ACCESS refers to the intersection between opportunity and means; attaining a postsecondary credential appears to be reasonable in terms of cost and preparedness. Access also includes the first semester of enrollment.

PROGRESS encompasses student persistence, fall to fall retention in traditional academic programs, and the continuation of postsecondary program to degree completion.

Other important definitions to note include:

RACE/ETHNICITY

EMSAS records, like census data and other government data sources like IPEDS, use multi-race fields for students. For example, a student may be both Black/African American and Hispanic. Census data further reports Hispanic individuals in a separate category, aside from race, and MDHEWD staff have followed their example for data pulled from EMSAS.

INCOME LEVEL

Using FAMOUS data, MDHEWD staff were able to identify income levels for students from Free Application for Federal Student Aid (FAFSA) records. MDHEWD staff operated under the assumption that students who needed financial aid were likely to complete a FAFSA, while students who did not require financial aid would not submit a FAFSA. Records indicate that nearly 80 percent of all first-time degree-seeking undergraduate students filed a FAFSA, while only around 65 percent of all undergraduates did. Therefore, it is likely that this report slightly under counts students in lower-income levels—which has been defined at 200 percent of the poverty level—but most likely does not over count them.

Data for poverty threshold came from the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services (<https://aspe.hhs.gov/prior-hhs-poverty-guidelines-and-federal-register-references>).

RURAL/URBAN

Because of limitations in the data, department staff were able to determine geographic location for Missouri residents only; urban/rural designation was then determined by county. The Missouri Economic Research and Information Center (MERIC) and the Missouri Department of Health and Senior Services have identified 14 counties considered to be urban, which is based upon population density. These counties are: Boone, Buchanan, Cass, Clay, Cole, Greene, Jackson, Jasper, Jefferson, Newton, Platte, St. Charles, St. Louis, and St. Louis City. MDHEWD have used these designations in this report.

MISSOURI EQUITY REPORT 2019

ENROLLMENT TRENDS

“ I THINK THERE ARE STILL A LOT OF PEOPLE IN THE UNDERREPRESENTED CATEGORIES

WHO THINK COLLEGE IS NOT AVAILABLE TO THEM. IF THEY [STUDENTS] CAN BE ENCOURAGED TO TRY SOMETHING AT THEIR LOCAL COMMUNITY COLLEGE FIRST, THEY MAY BE WILLING TO GO ON FROM THERE AND TRANSFER TO A FOUR YEAR UNIVERSITY.”

— Dr. Tristan Londre, Vice President of Academic Affairs, North Central Missouri College

The American Community Survey (ACS) estimates from the U.S. Census Bureau provided a demographic baseline against which postsecondary data could be compared, in order to understand equity gaps for postsecondary education in Missouri, and the subpopulations effected.

According to the ACS estimates, the Missouri population changed very little from 2008 to 2017, the most recent year available, though slight shifts indicate an aging population. Over that same time period, the number of residents of color has slightly but steadily increased. Even with these statewide shifts, the enrollments of first-time degree-seeking students in public postsecondary institutions, pulled from the EMSAS data files, roughly match the demographic profile of the 18-24 age population in the state of Missouri.

Disparities appear to be minimal at the point of enrollment when looking at the overall demographic profile of college going Missourians. However, inequities become readily apparent when analyzing the student body in further detail. Some of the areas where differences arise include but are not limited to sector, admissions selectivity, and fields of study. These inequities affect all Missourians, but they predominately affect Missourians of color, low-income Missourians, and Missourians who are adult learners.

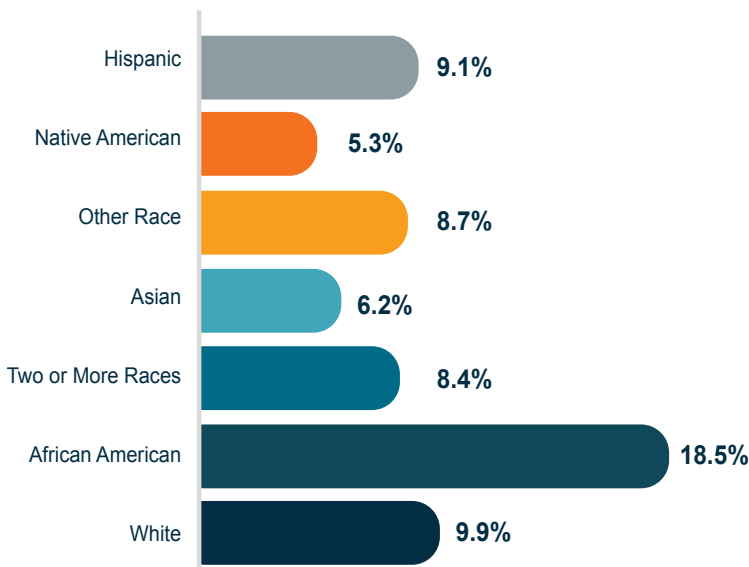
OVERALL ENROLLMENT

The overall population of Missouri has increased by 3 percent between 2008 and 2017, but there have only been slight demographic changes over the past few years. Missouri, similar to most of the country, is becoming older and more diverse. However, there has been a slight overall decrease in the traditional college-going population in Missouri (between the ages of 18 and 24).

The number of Missouri residents who are enrolled in college rose steadily from 2008 to 2012. According to data from ACS 1-Year-Estimates from 2008-2017, this number decreased after 2012. This is true for both males and females, as well as traditional and non-traditional students. College enrollment figures are self-reported in the dataset and include in-person, online, private, public, in-state, and out-of-state enrollments.

Teenagers and young adults between the ages of 16 and 24 who are neither working nor in school (see Figure 1) are referred to as disconnected youth. Roughly one in five Black/African American young adults between 16-24 years old is neither in school nor working. Asians and Native Americans have the lowest percentages of those considered disconnected youth.

Figure 1: Percent of Missourians Age 16-24 Who Are Not in School or Working, 2017

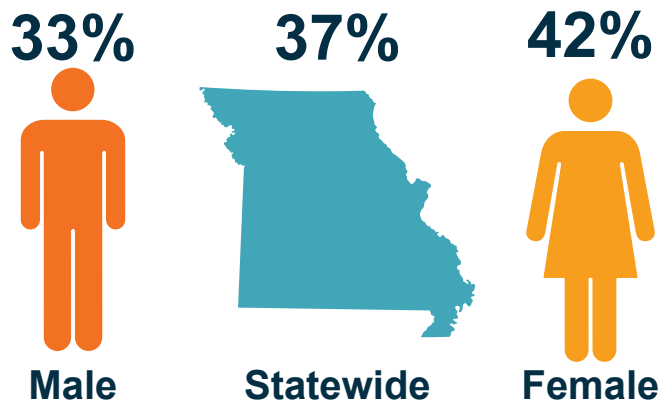


Source: ACS, 2017 1-Year Estimates

OVERALL ENROLLMENT

On average, 42 percent of all females age 18-24 are enrolled in college compared to an average of 33 percent for males. For the state as a whole, 37 percent of 18-24 year olds were enrolled in college between 2008 and 2017.

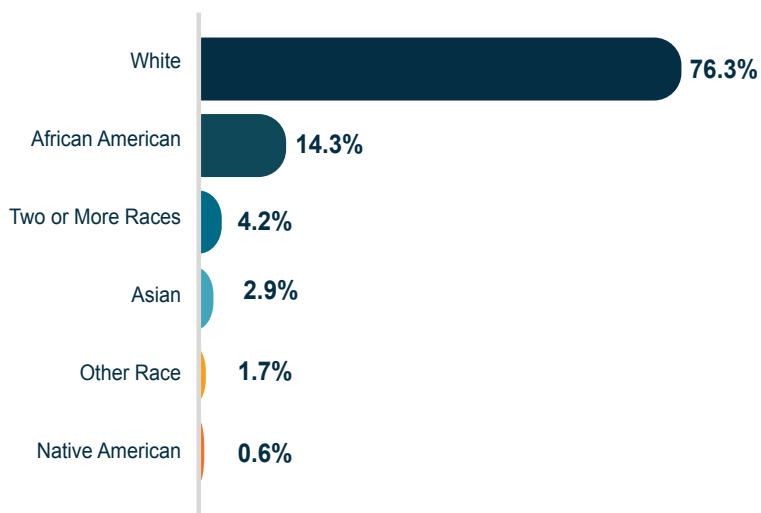
Figure 2: Percent of Missouri Population, Age 18-24, Enrolled in College by Sex



Source: ACS, 1-Year Estimates, 2008-2017

The immediate college enrollment rate is the annual percentage of high school graduates who enroll in two-year and four-year institutions in the fall immediately following high school graduation. College enrollment rates immediately following high school graduation measure the size of the high school to college pipeline. The higher the rate, the more successful a state is in funneling students into higher education.

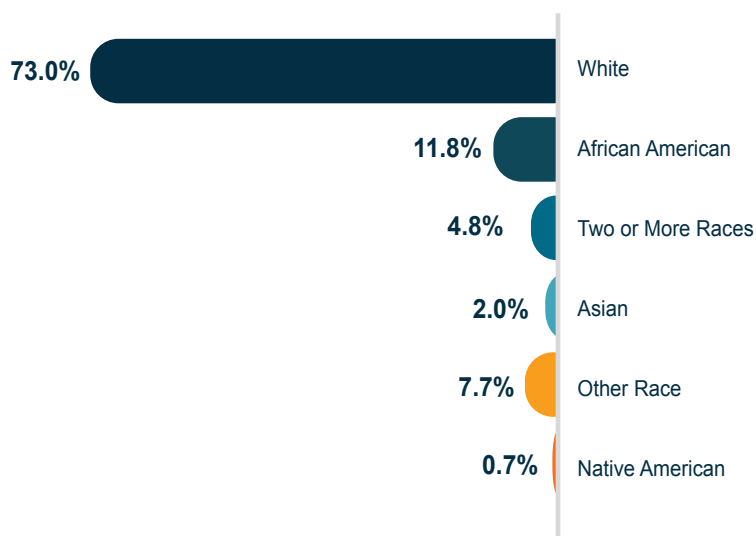
Figure 3: Missouri Population: Sub-Population, Age 18-24, by Race, 2017



Source: ACS 1-Year Estimates, 2017

The percentage of Missouri students enrolled full time in public institutions in the fall following high school graduation, regardless of course load, declined from 45 percent in 2008 to 37 percent in 2017. Full-time enrollment for all students fell from nearly 50 percent in 2010 to 39.7 percent in 2017. There was a slight increase in full-time Missouri public sector enrollment by Missouri high school graduates during the 2013 and 2014 fall semesters, but that percentage has hovered around 37 percent since 2014, far from the 45 percent enrollment rate seen at the beginning of the last decade.

Figure 4: First-Time, Degree-Seeking Undergraduates at Missouri Public Postsecondary Institutions, 2017



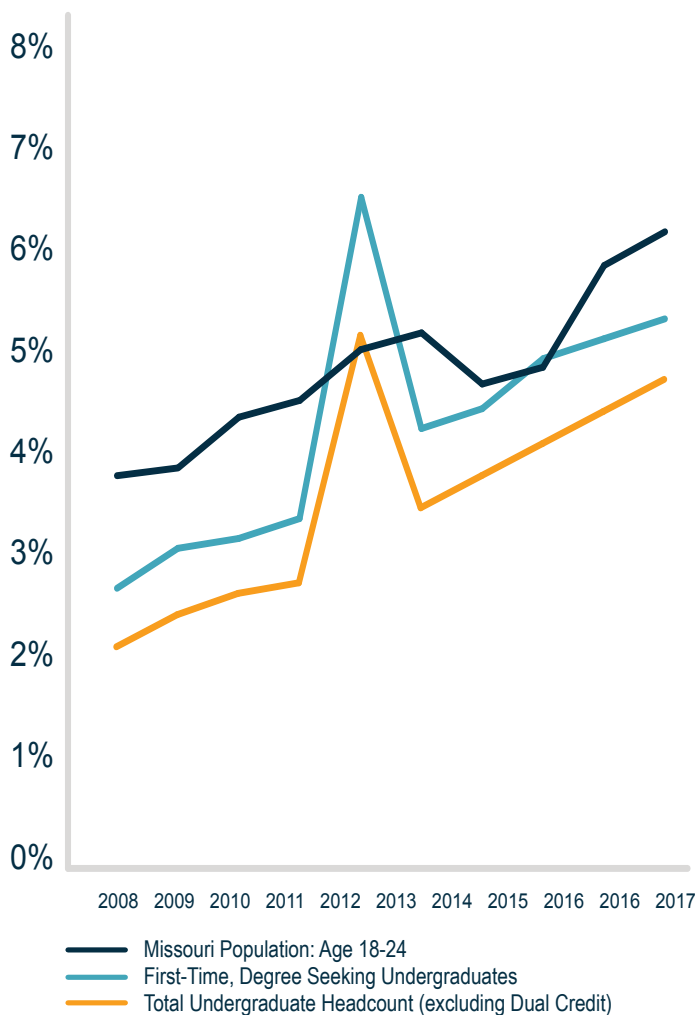
Source: EMSAS Fall Enrollment Files, 2017

From 2008 to 2017, Missouri saw an increase of residents of color within the state, both in terms of population and as a percentage of the population (Figure 3). These trends are reflected, to an extent, in the enrollment demographics for first-time degree-seeking undergraduate students (Figure 4). While MDHEWD staff are comparing two different data sources, some discrepancies do occur but are well within the margin of error, while others may be due to sample size, data definitions, or data gathering techniques. For example, there is discrepancy between percentages within the classification of “two or more races” and “some other race only” between ACS and the EMSAS files. However, these differences are most likely due to data definitions and not necessarily a disparity in enrollments.

OVERALL ENROLLMENT

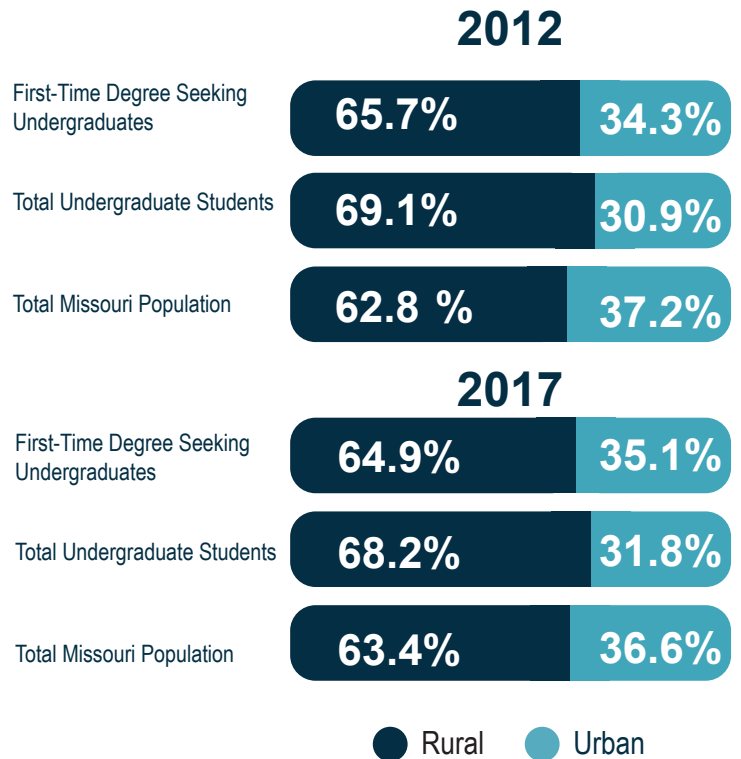
Even when comparing two different data sources, some similarities and patterns appear. Enrollments for white students have decreased by 6.3 percent (matching trends found in the ACS data), while enrollments of Black/African American students have also declined by 8.3 percent, a reverse of the ACS trends. At the same time, however, enrollments of Asian and Hispanic students have increased, by 12 percent and 77.2 percent, respectively. The overall trend for enrollments and population growth of the Hispanic population demonstrate steady increases, though a spike in 2012 enrollments seem to correspond to the release of Deferred Action for Childhood Arrivals (DACA), and the gap between population and enrollment patterns appears to be narrowing (Figure 5).

Figure 5: Hispanic Population: ACS estimates and Enrollment Patterns



Source: EMSAS Fall Enrollment Files and ACS estimates

Figure 6: Enrollments and Population by Student Geographic Location: Urban and Rural (2012 and 2017)



Source: EMSAS Fall Enrollment Files and ACS Five-year Estimates

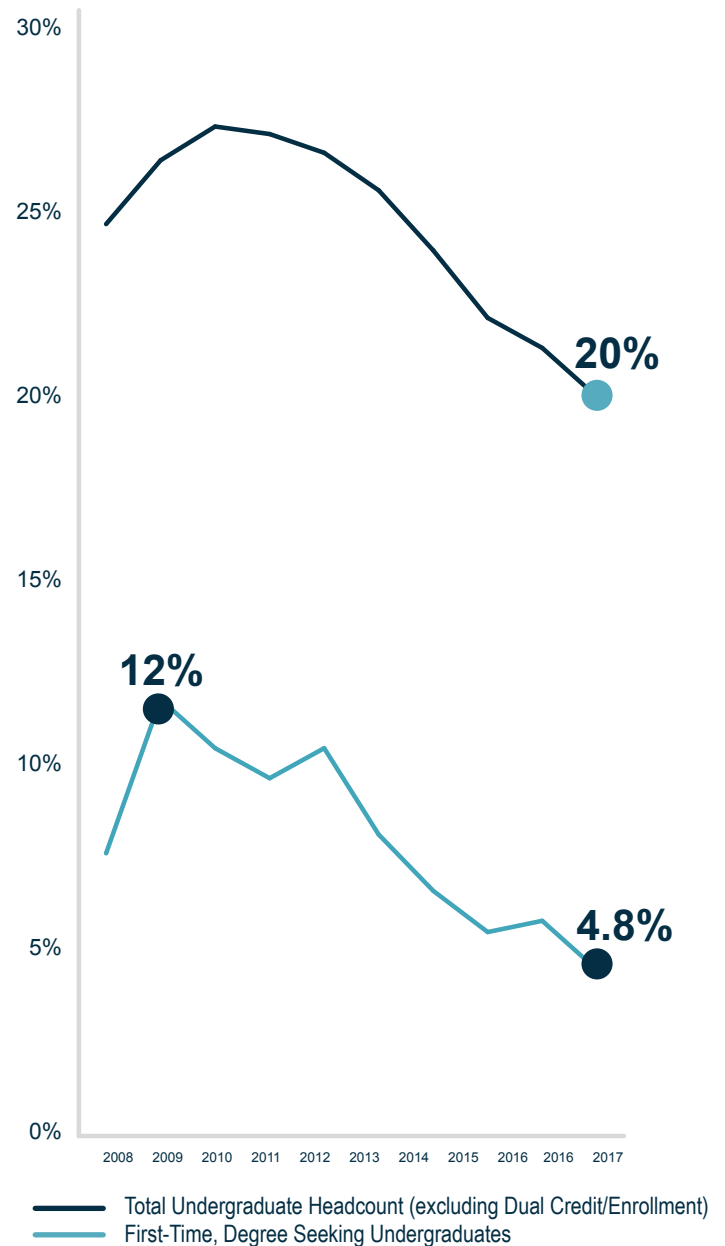
Even though the state population has continued to increase, this growth has been uneven in terms of geography. While the number of Missouri residents living in rural counties has remained relatively flat, there has been a 2.4 percent increase in urban counties. For the 2012 five-year average, 37.2 percent of the population lived in rural counties, compared to 34.3 percent of first-time, degree-seeking students and 30.9 percent of all undergraduates, indicating a slight underrepresentation of rural students in public postsecondary enrollments. For 2017 this trend narrows slightly, as the total rural population for Missouri was 36.6 percent, with first-time, degree-seeking enrollments at 35.1 and total undergraduate enrollments was 31.7 percent (Figure 6). In addition, first-time, degree-seeking undergraduate rural students tend to be overall slightly poorer than their more urban peers, and slightly more likely to be first-generation students.

OVERALL ENROLLMENT

In addition to the slight demographic changes in Missouri, enrollments among certain populations have fluctuated over that same 2008-2017 time period. This is most prevalent among students falling outside the traditional college-age (18-24). While each year a majority of the state's undergraduate students are in this traditional age range, there was a relative surge in enrollments for returning and non-traditional students in the years following 2008 and the Great Recession. At its peak in 2009, 12 percent of all first-time, degree-seeking students were between the ages of 25-64, but in 2010, all undergraduate enrollments fell 28 percent in this age range (Figure 7). For the most recent enrollment data available, fall 2017, these numbers have declined to 4.8 percent for first-time students, and 20 percent for all undergraduate enrollments. This enrollment pattern also holds true for low-income students. During the years following the Great Recession, the percentage of low-income students enrolled in postsecondary institutions steadily declined as the economic recovery took hold.

While there are several disparities, whether by full-time or part-time enrollment, race/ethnicity, income levels, and geographic location, the widest disparity is between adult learners and their traditional college-age peers. For students age 18-24, full-time enrollments for all undergraduates never dropped below 80 percent from 2008 to 2017, while part-time enrollment for first-time, degree-seeking students hovered around 10 percent to 12 percent over that same period. For adult learners between the ages of 25-64, less than 50 percent of first-time students enroll full-time, and in total undergraduates only around a third of these students attend full-time. While adult students currently make up around 4 percent of first-time enrollments, they make up just over 20 percent of all undergraduate enrollments.

Figure 7: Adult Students, Age 25-64, as a Percentage of Undergraduate Enrollments



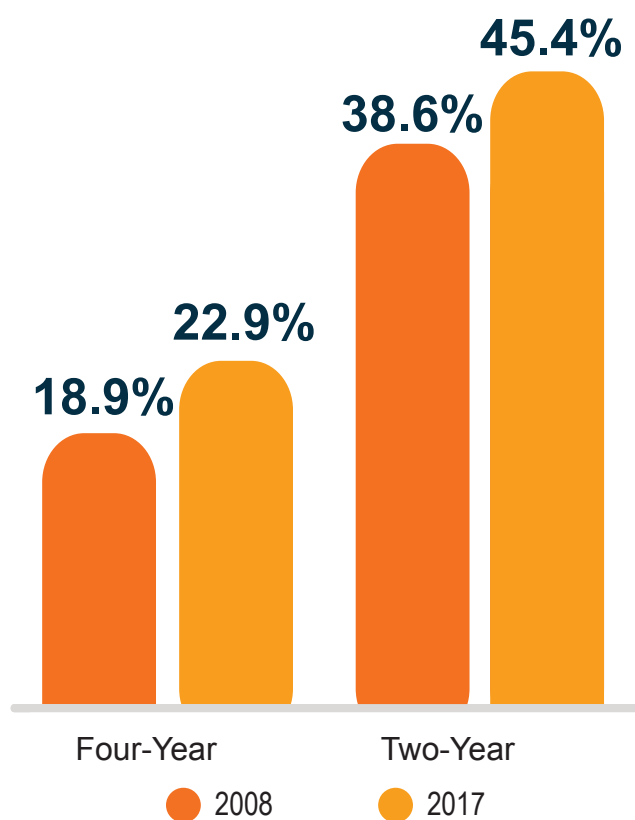
Source: EMSAS Fall Enrollment Files

ENROLLMENT BY SECTOR

Undergraduate enrollments aggregated at the statewide level generally match the demographic profile of Missouri; however this trend begins to break down when disaggregated by sector, selectivity, and fields of study. The most immediately apparent differences between the two-year and four-year sectors are the representation of low-income students; the proportion of low-income students, or students below the 200 percent poverty line as of 2017, is 45.4 percent in the two-year sector, and 22.9 percent in the four-year sector (Figure 8).

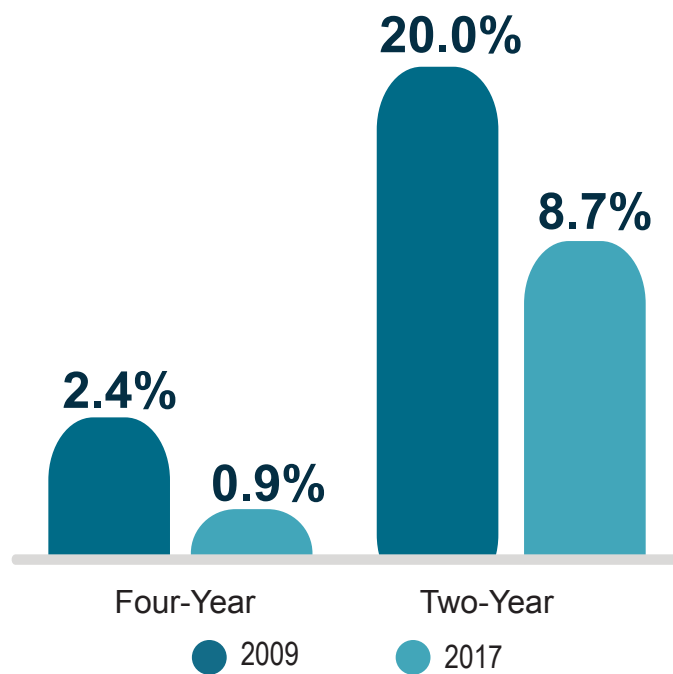
Adult learners are more likely to enroll in two-year institutions, and make up a greater percentage of their first-time, degree-seeking students (Figure 9). This trend holds over time, regardless of the effects the Great Recession had on the percentage of adult learners enrolled in all kinds of institutions. Data from 2009 is used as the point of comparison for this particular metric because adult enrollment peaked that year, likely due to the effects of the Great Recession.

Figure 8. Representation of Total Student Headcount Below 200 Percent Poverty Line by Sector



Source: EMSAS Fall Enrollment Files

Figure 9. Percentage of Adult Learners, Age 25-64, by Sector



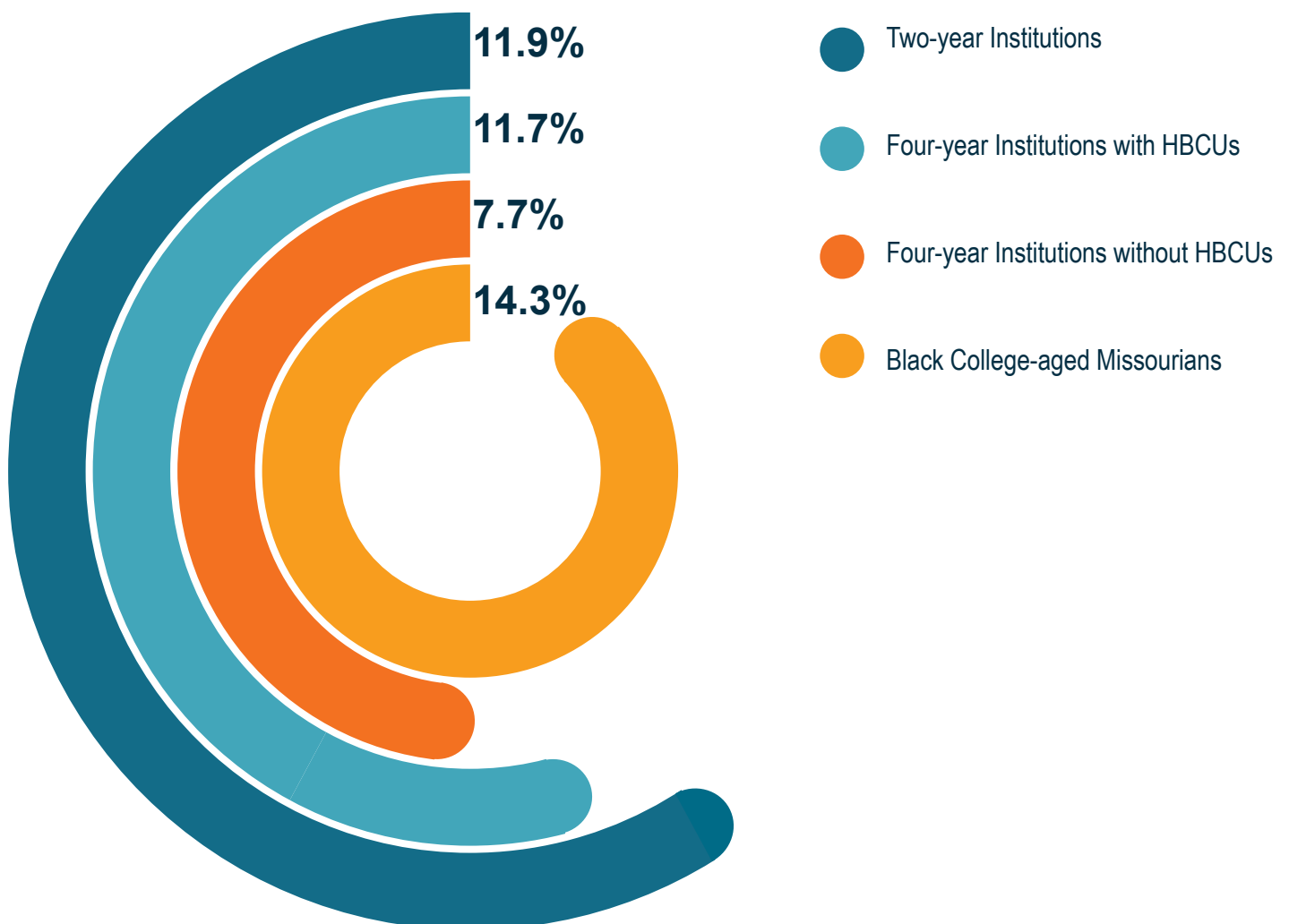
Source: EMSAS Fall Enrollment Files

ENROLLMENT BY SECTOR

The racial makeup of both the two-year and four-year sector appear to be slightly under representative of the broader Missouri population. However, it is worth noting that two of Missouri's four-year institutions are designated as Historically Black Colleges and Universities (HBCUs). When excluding these two

institutions from the four-year sector, the enrollment of Black first-time degree-seeking students hovers below eight percent (Figure 10). This falls far below the statewide percentage of Black college-aged Missourians in 2017 (14.3 percent).

Figure 10: Black Enrollment Rate by Sector, 2017



Source: ACS 1-Year Estimates and EMSAS Fall Enrollment Files

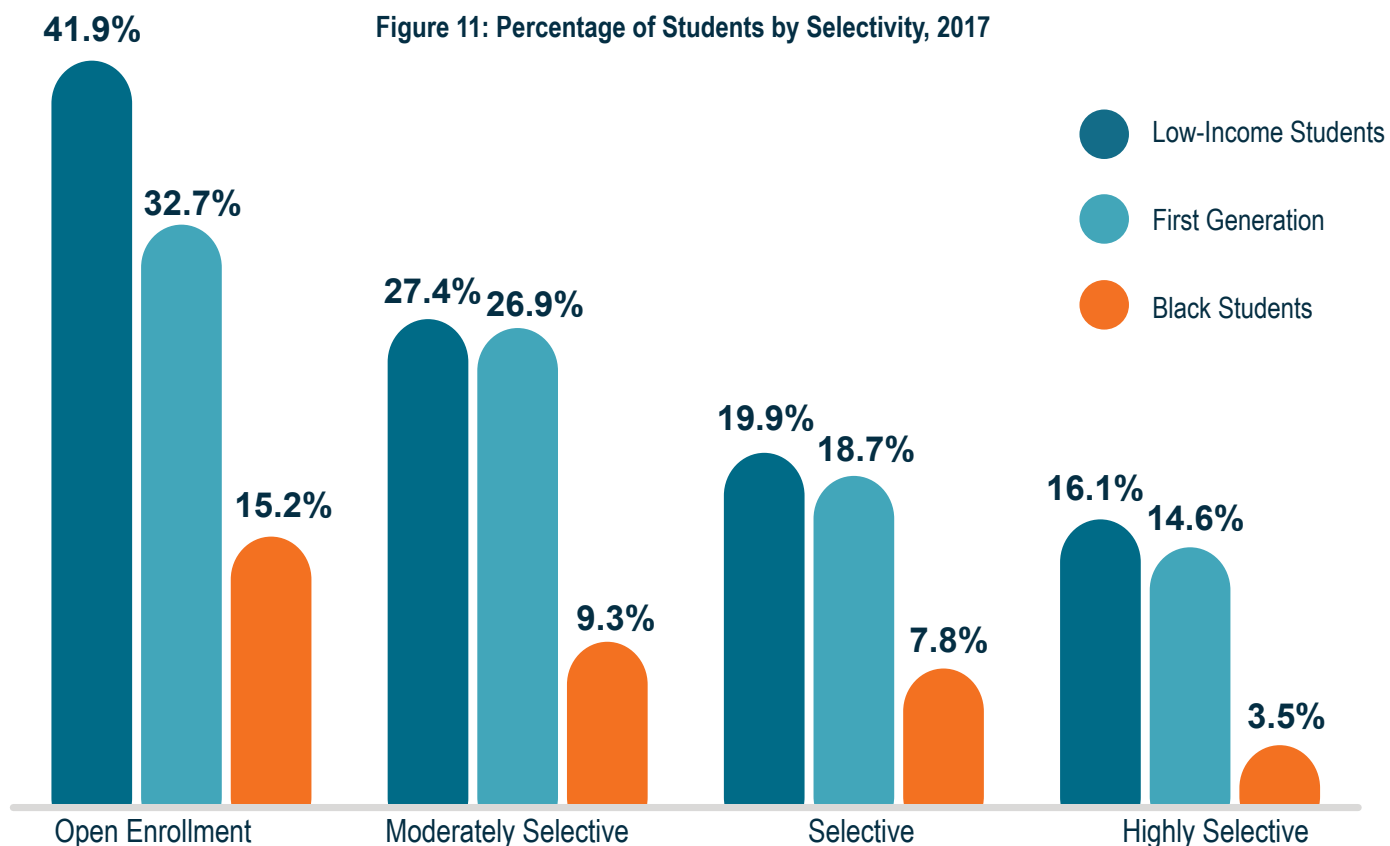
ENROLLMENT BY SELECTIVITY

There are four classifications of selectivity for Missouri's public colleges and universities – highly selective, selective, moderately selective and open enrollment. The broad cross-section of students that fall into these categories, as well as the somewhat linear relationship selectivity has with income, parental education, and race (Figure 11) makes this a worthwhile metric to analyze.

It is clear, when looking at the difference between Missourians above the 200 percent poverty line and Missourians below the 200 percent poverty line that there is a pretty linear relationship between selectivity and income. The fact that students below the 200 percent of poverty level are overrepresented at open enrollment institutions merits further research. While it makes sense that lower-income students would heavily gravitate towards community colleges, which are generally more affordable, their relative underrepresentation particularly at the highly selective and selective levels should prompt a line of research to determine what those institutions could be doing to make themselves more feasible options for Missouri's low-income students.

When examining the gap between the percentage of first generation students and students with at least one parent that have completed college, some clear inequities emerge. More than 33 percent of first-time degree-seeking students at open enrollment institutions in 2017 were first-generation, while only 15.5 percent of students at highly selective institutions were first generation.

Analysis on racial lines show that there are some serious inequities present as well. According to the 5-year ACS estimates for 2013-2017, 14 percent of all enrolled college students were Black students. This is not substantively different from the estimate of Black Missourians who were college age – the 2013-2017 estimates show that 14.5 percent of college-aged Missourians are Black. However, the only selectivity bracket that reflects those figures are the open enrollment institutions. Black students are underrepresented at moderately selective, selective and highly selective institutions.



Source: EMSAS Fall Enrollment Files, 2017

ENROLLMENT BY FIELDS OF STUDY

The department uses seven discipline areas to broadly capture the demographic makeup of fields of study in Missouri:

- Arts and Humanities
- Business and Communication
- Education
- Health Professions
- Human Services and Social Sciences
- STEM
- Trades

In examining the population of first-time degree-seeking students enrolled in these majors, it was found that distinct populations are more likely to enroll in one field over another. There are several key takeaways from analyzing Missouri’s student body, broken out by fields of study.

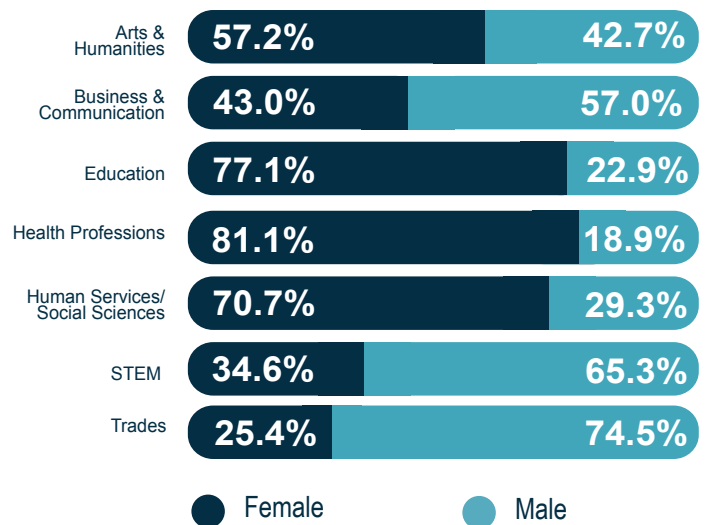
When analyzing fields of study by income, one trend every field shares is that the percentage of students below the 200 percent poverty line level jumps roughly seven to 10 percentage points from 2008 to 2009, which is attributed to the impact of the Great Recession. However, the enrollments of students in this demographic have not decreased over time, even with the post-Recession strides the economy has made. It is worth celebrating that more low-income students are enrolling than they were 10 years ago, but the inequities between fields of study remain problematic. The clearest example of this is the stark underrepresentation of low-income students in STEM and business and communications programs, both in relation to the state demographic profile and in relation to the demographic compositions of the other fields of study. Conversely, low-income students appear to be overrepresented in the arts and humanities and trades fields.

Although female students account for more than half of enrollments at most institutions, males outnumber females at schools catering to traditionally male-dominated fields such as STEM. Enrollment in STEM programs for females increased from 30.2 percent in 2008 to 34.6 percent in 2017, but the overall ratio among trades programs has stayed roughly 75 percent male to 25 percent female. When taking into consideration the majority of Missouri’s colleges and universities have an overrepresentation of females, the fact that they are so underrepresented in these fields may suggest the need for STEM programs that target women in both K-12 education as well as higher education. It is also of note

that one of the state’s two highly selective institutions is science- and technology-focused.

The gender breakdown of students in business and communications programs is slightly more complicated. In 2008, the gender ratio in these programs was roughly representative of the gender ratio for the state as a whole, with females only slightly outnumbering males. However, by 2017 males were overrepresented in business and communications programs with 57 percent of enrollments compared to 43 percent of females enrolled (Figure 12). In contrast, education and health professions are both overwhelmingly female, and predominantly White.

Figure 12: Gender Disparities in Program Enrollments, 2017



Source: EMSAS Fall Enrollment Files, 2017

Health professions programs have steadily increased their representation of Black students, but the percentage of Black students in 2017 (10.6 percent) still falls short of the percentage of Black Missourians enrolled in college that year (14.3 percent). In education programs, the proportional representation of Black Missourians has decreased from 7.9 percent in 2008 to 5.8 percent in 2017. Since these fields are largely female-dominated, this may speak to the underrepresentation of Black women in these fields. The human services/social sciences field is also overwhelmingly female, but the racial composition of this major is representative of Missouri’s college-age population. No other noticeable equity gaps were apparent when analyzing other races and ethnicities.

INEQUALITIES IN COLLEGE PREPARATION

No systemic inequities happen without outside events or influences. While the focus of this report is on the equity gaps in higher education, in order to properly understand the source of these gaps, factors outside of higher education must be analyzed as well. To determine whether there are any disparities along the lines of academic preparedness, this section analyzes data on incoming college credits upon enrollment, ACT scores, and placement in remedial education. Unless otherwise noted, this section deals with students who enrolled in public postsecondary institutions within the same year as graduating from a Missouri public high school.

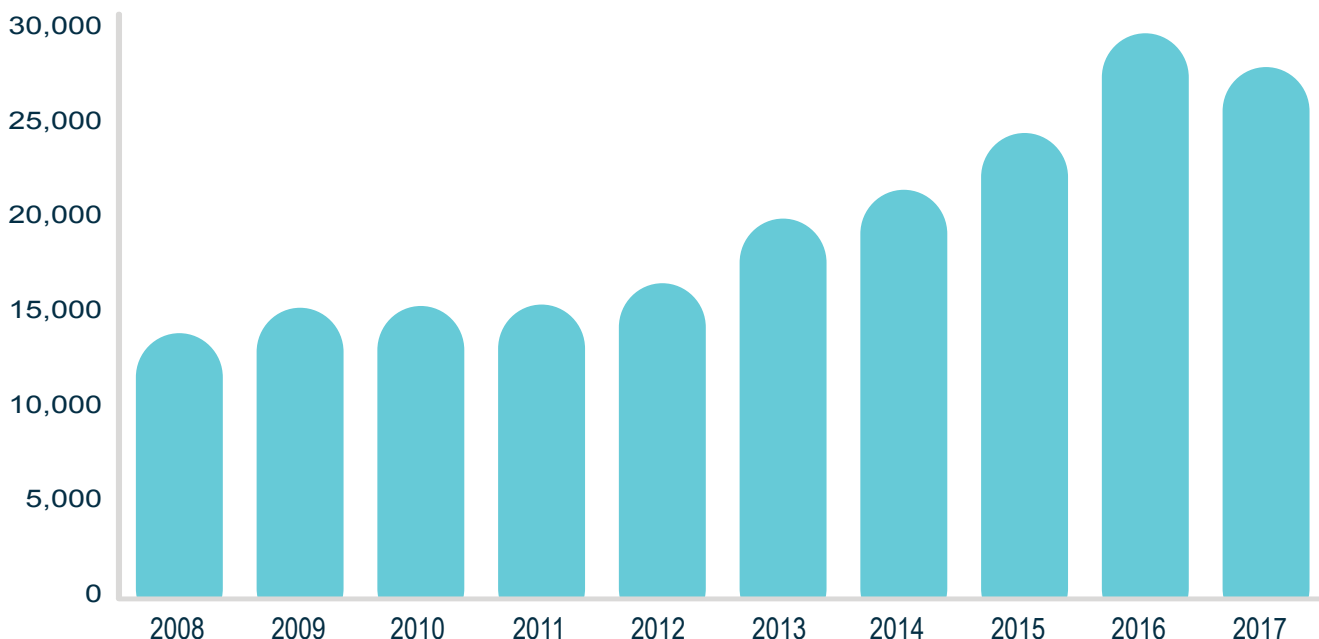
Academic preparedness can impact access to and progress through higher education as well as completions and success measures, which will be covered in future reports. Students coming in with college credit are often at an advantage as they require fewer additional credits, and therefore, less time to graduate. Disparities in ACT scores can be reflected in disparities in merit-based financial aid decisions, as well as course placement and admissions decisions.

ENROLLMENTS BY INCOMING CREDITS

Early college programs provide high school students an opportunity to experience rigorous college-level coursework and to receive both high school and college-level course credit. To uncover any further disparities in terms of college preparation, it is important to compare students who entered college with some college credits (e.g., AP coursework, dual credit/dual enrollment, credit by examination) to those who did not. Students who come into college with some college credit generally have fewer credits to take and a shorter time to graduation. Disparities in access to early college programs can lead to, or further exacerbate, inequities in progress and retention, and ultimately completion and success.

There are several noteworthy gaps between these two subsets of the student population, and there were also some noteworthy gaps within the group of students with credits as first-semester freshmen. The data finds that although the number of students taking dual credit courses has gone up (see Figure 13), the disparities remain fairly steady over time. Students of color, especially Black students, are generally underrepresented (Figure 14) in dual credit and dual enrollment, while female students are overrepresented.

Figure 13: Total number of Students Enrolled in Dual Credit/Dual Enrollment



Source: EMSAS Fall Enrollment Files

EARLY COLLEGE PROGRAMS

The body of students who begin their freshmen year **with no incoming credits** are representative of Missouri's general population breakdown. However:

- Females slightly outnumber males in every year measured.
- Black students are slightly overrepresented compared to the overall population of Black college students (16.2 percent compared to 14.5 percent).
- Students below 200 percent of the poverty line are slightly overrepresented in the group of students with no incoming credits, with a 10-year average of 35.9 percent compared to a statewide average of 35.1 percent for all first-time degree-seeking students.

However, the demographic breakdown for **students that have college credits** when they begin their freshman year is quite different.

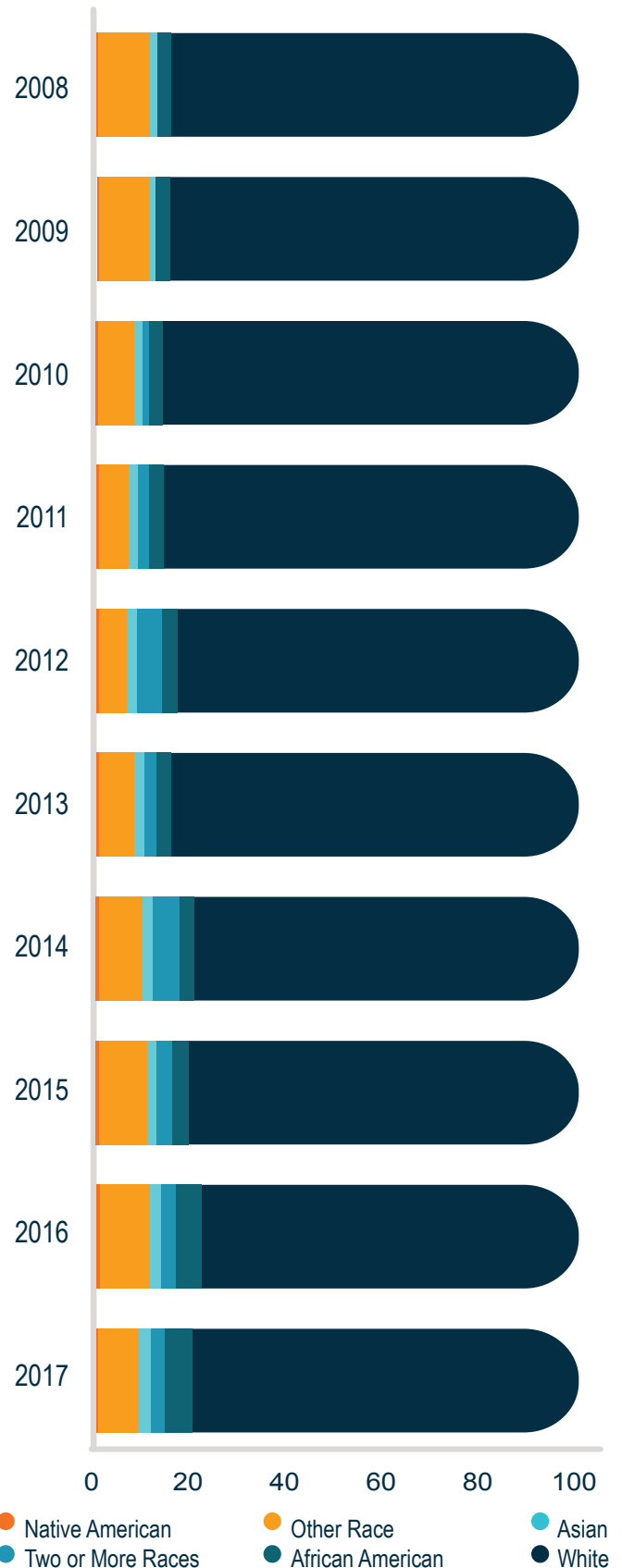
- The gap between women and men expands, with 58.4 percent female compared to 42.6 percent male.
- Black students are heavily underrepresented among students with incoming college credits, with a 10-year average of 4.9 percent.
- Low-income students are also heavily underrepresented, with a 10-year average of 21.3 percent, which is substantially lower than the 10-year average for low-income students who enter college with no credits.

When analyzing the students who start college with credits by **how many credits** they come in with, the disparities become even starker.

- The gap between women and men grows wider as the amount of incoming credits increases.
- The 10-year average percentage of low-income students that enter college having 15 to 30 credit hours is 16.7 percent.
- The gap between Black students and their peers widens even further, with a 10-year average of 1.9 percent.

By separating the population of students that enter college by the amount of credit hours attained it becomes clear that some progress has indeed been made. For students that enter college with between one and three credits, both Black students and low-income students have increased in proportion by roughly 8 percent in each group.

Figure 14: Dual Credit/Dual Enrollment by Race



Source: EMSAS Fall Enrollment Files

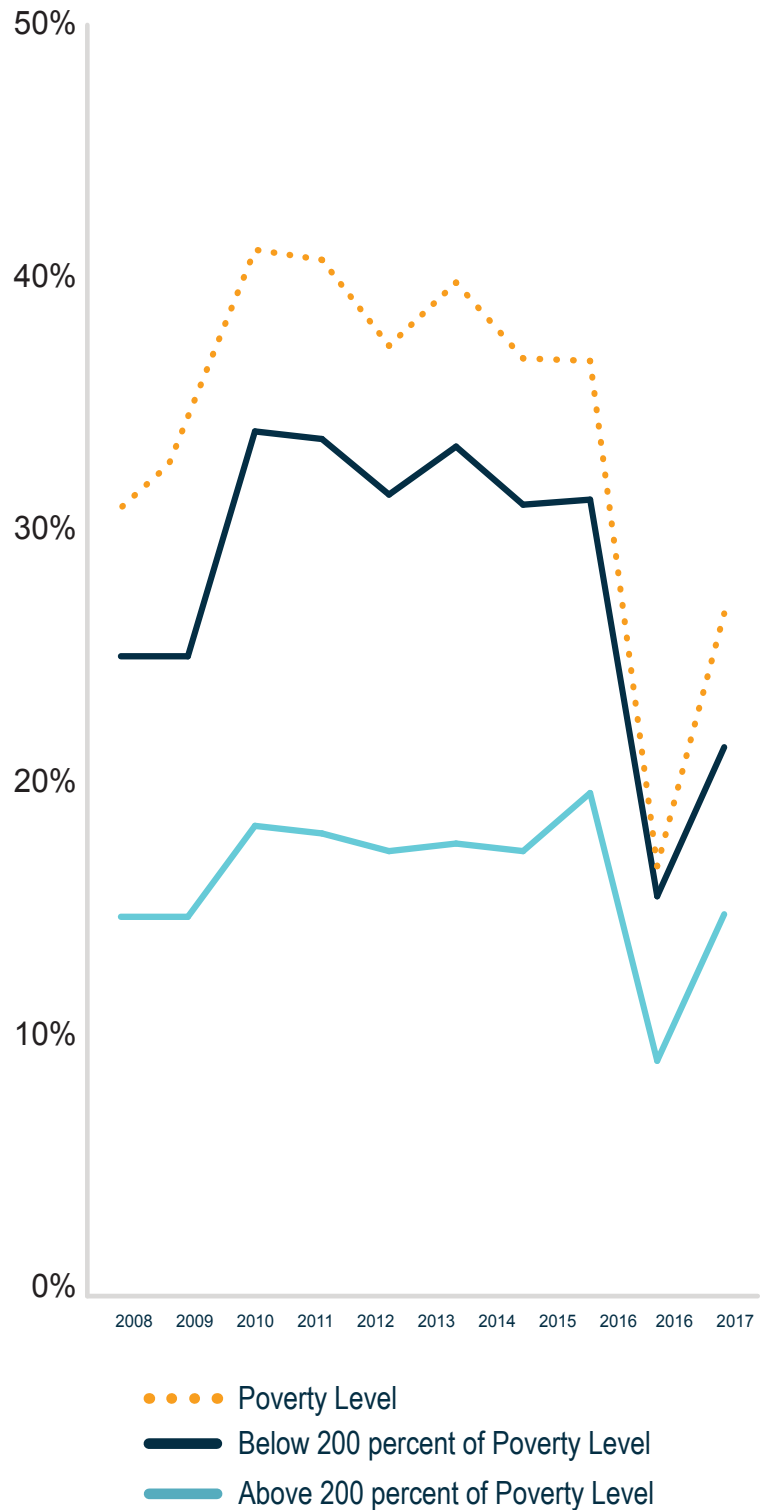
ACT SCORES

The ACT is a standardized entrance exam used by colleges and universities to make admissions and course placement decisions. It has been used for decades as a proxy measure for college readiness and has long been a component of Missouri's institutional selectivity criteria. In 2016 and 2017, Missouri was an ACT census test state, meaning the state appropriated funds for every junior-year high school student to take the ACT once, though any additional attempts required the student to pay the exam fee. While the median composite ACT score for all students has remained fairly steady over time, the disaggregated data reveals disparities among certain groups, not only for overall composite scores but in terms of who is and is not taking the ACT before enrolling in college. This is important for admissions and course placement. Lower ACT scores or a lack of an ACT score could result in placement in remedial coursework, resulting in higher costs for the student as they pay for courses that don't count toward their program of study.

In 2016 and 2017, the state appropriated funds for every junior to take the ACT, and the data reflect this policy change, as there are slight dips in median composite scores as the pool of test takers increased. There is also a significant decrease in the number of students enrolling in public postsecondary institutions without a valid ACT score. Many non-open enrollment institutions require an ACT score for admissions and course-placement.

Disaggregating by income levels, the data indicate that students at the poverty level and within 200 percent of the poverty level have a median composite score three points lower than their wealthier peers. Low-income students are twice as likely to enroll in college without an ACT score (Figure 15). This means they are more likely to be enrolled in remedial education, thereby slowing their educational progress and adding additional student cost.

Figure 15: Percent of Recent High School Graduates Without an ACT score, By Income Level



Source: EMSAS Fall Enrollment Files

ACT SCORES

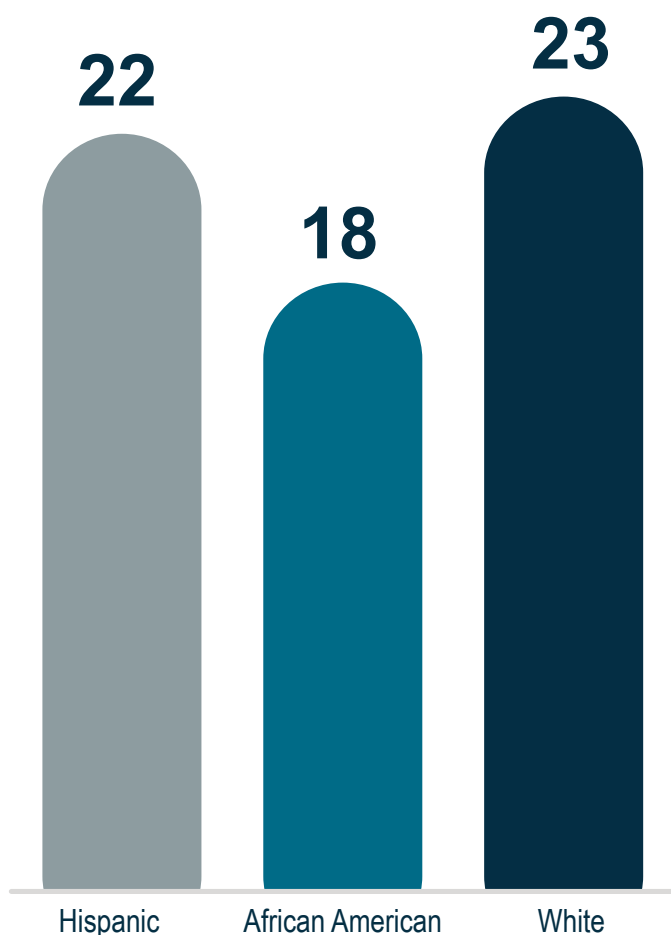
The largest disparity in composite scores comes in terms of disaggregating the data by race (Figure 16):

- There is roughly a five-point difference in ACT composite scores between Black students and their White peers, which remains fairly consistent over time.
- There is a two-point difference in scores between Hispanic students and their White peers, on average.

The gap between those enrolling at a postsecondary institution without a valid ACT score by race has grown over time.

- Black and Hispanic students are now more than twice as likely to enroll in higher education without an ACT score as their White peers, a reversal of the trend for low-income students.

Figure 16: Median ACT Composite Score, by Race, 2017



Source: EMSAS Fall Enrollment Files, 2017

Parental education levels also appear to have an influence on ACT outcomes. Much like the analysis of income levels, first-generation students and students with only one parent who completed college were twice as likely to enroll in higher education without taking the ACT, though this gap has narrowed in recent years. Additionally, first-generation students scored three to four points lower than their peers whose parents both completed college, and students with only one parent completing college scored two to three points lower.

“ IF WE CAN EQUIP THE STUDENTS BETTER WHILE THEY’RE IN HIGH SCHOOL, JUST IMAGINE HOW MUCH BETTER THEY’RE GOING TO PERFORM ONCE THEY GET TO COLLEGE. ”

– DONELL YOUNG, JD, DIRECTOR OF THE CENTER FOR ACADEMIC SUCCESS & EXCELLENCE, UNIVERSITY OF MISSOURI-COLUMBIA

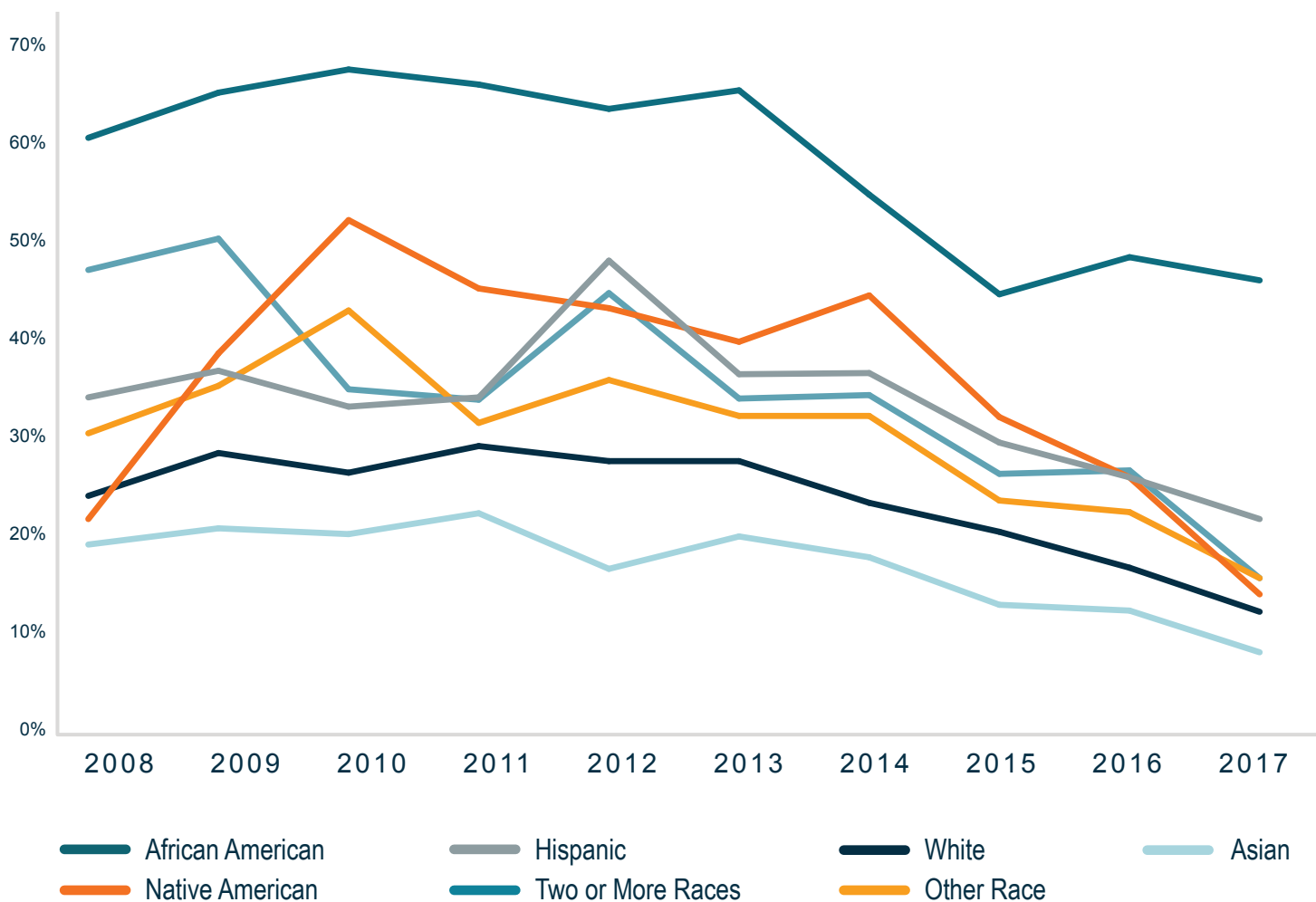
REMEDIAL EDUCATION

Like ACT scores, enrollment in remedial education has been used as a proxy to measure college readiness, and the math ACT subscore is widely used to place students in either college-level or remedial coursework. Remedial education is seen as a barrier to progress because students must take extra courses before enrolling in courses that count toward earning their degree. Strides have been made on the policy level to help ensure students are given every opportunity to be placed in a gateway course, including the use of multiple measures for placement. The participation rate of first-time, degree-seeking undergraduates in remedial education has declined by 35.6 percent since 2008, and there has been a 44 percent decline for all undergraduate students. While this downward trend extends across all populations, there continues to

be disparities in terms of race/ethnicity, age, gender, parental education, and income levels, and the gaps between White students and students of color are increasing in some cases (Figure 17).

First-time undergraduate Black students in 2008 were twice as likely to enroll in remediation as their White peers, but were 2.4 times more likely to be enrolled in remediation as of 2017, even though remedial enrollments have decreased over that same period for both groups. In terms of the total undergraduate population, the likelihood of Black students being enrolled in remedial coursework increases to nearly three times the rate of their White peers. First-time undergraduate Hispanic students were 1.4 times more likely in 2017 to be in remedial coursework.

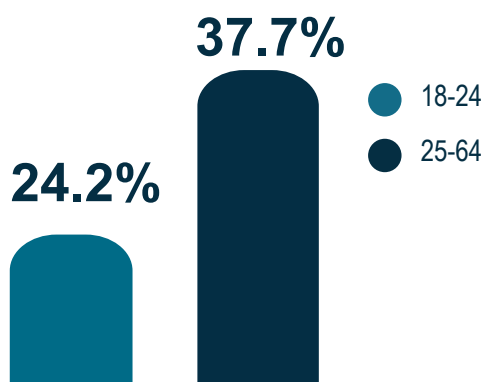
Figure 17: Enrollments, by Race/Ethnicity, in Remedial Education



Source: EMSAS Fall Enrollment

REMEDIAL EDUCATION

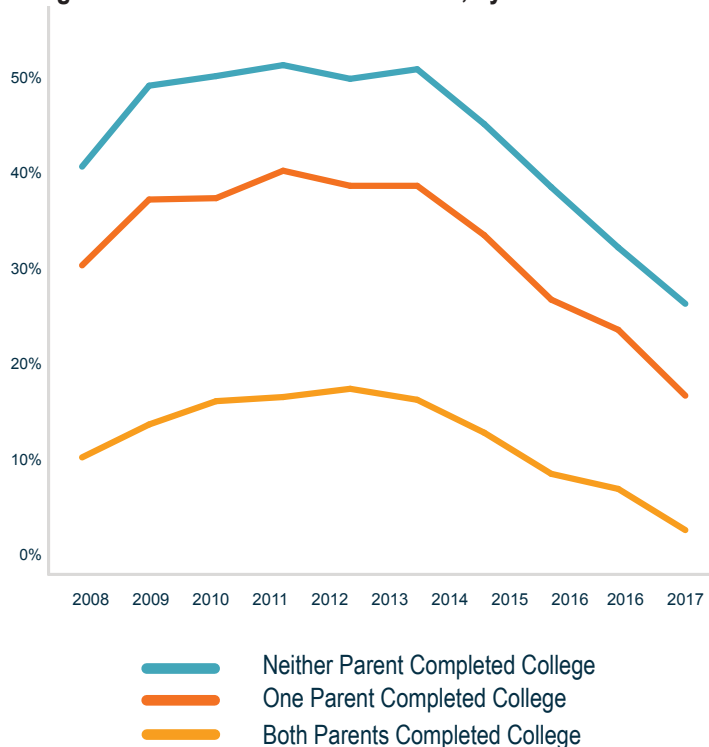
Figure 18: Enrollment of First-Time, Degree-Seeking Undergraduates in Remediation, by Age Category, 2017



Source: EMSAS Fall Enrollment Files, 2017

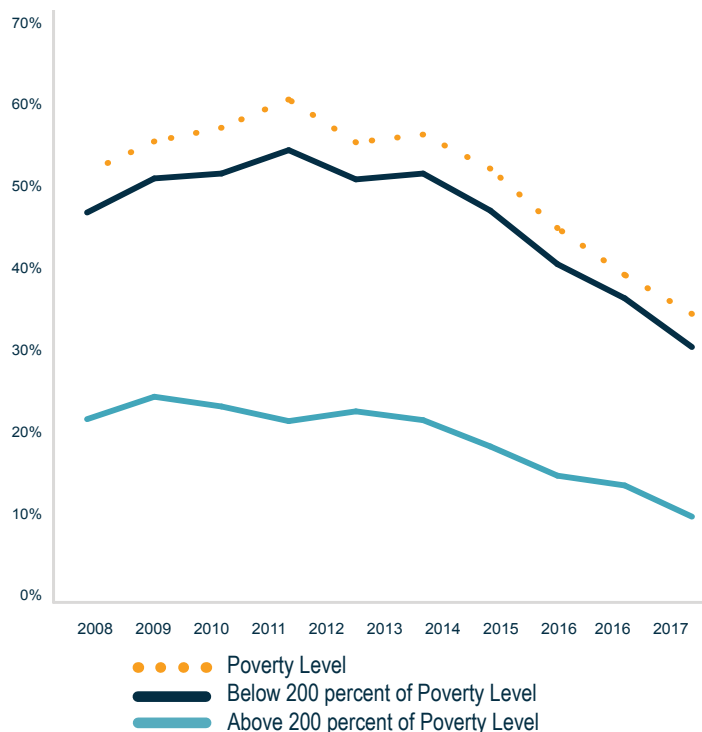
When compared to their younger peers who have more recently completed high school, older students between the ages of 25 and 64 have been, perhaps unsurprisingly, more likely to be enrolled in remedial education (Figure 18). Nearly 60 percent of all first-time adult undergraduate students were enrolled in remedial coursework in 2011. Although there have been overall declines in remediation rates for these two populations, the gap between the two has only slightly narrowed since 2008.

Figure 19: Enrollment in Remediation, by Parent Education



Source: EMSAS Fall Enrollment Files

Figure 20: Enrollment in Remediation, by Income Level



Source: EMSAS Fall Enrollment Files

First-generation students and students with only one parent holding a postsecondary degree are also more likely to be enrolled in remediation than students whose parents both completed a college degree (Figure 19). While the gap between these different groups of students is narrowly decreasing over time, first-generation students are still nearly twice as likely to be enrolled in remediation as their peers.

These disparities may be a result of differences in awareness, preparation, or even social capital. Students for whom both parents completed college may find it easier to navigate the secondary and postsecondary landscape, but regardless of reason, disparities still exist, and policymakers and stakeholders should continue to work to close these gaps.

There is a continuing gap between first-time students who are within 200 percent below the poverty level and their peers from a higher economic background (Figure 20). As with remediation rates overall, rates between the two groups continue to decline significantly. The same is true for students below the poverty line. However, the gap between these students has persisted over time and has, in fact, slightly widened. Students below the poverty threshold are now twice as likely as their peers to be enrolled in remedial courses. This gap is even wider taken in context of total undergraduate enrollment.

MISSOURI EQUITY REPORT 2019

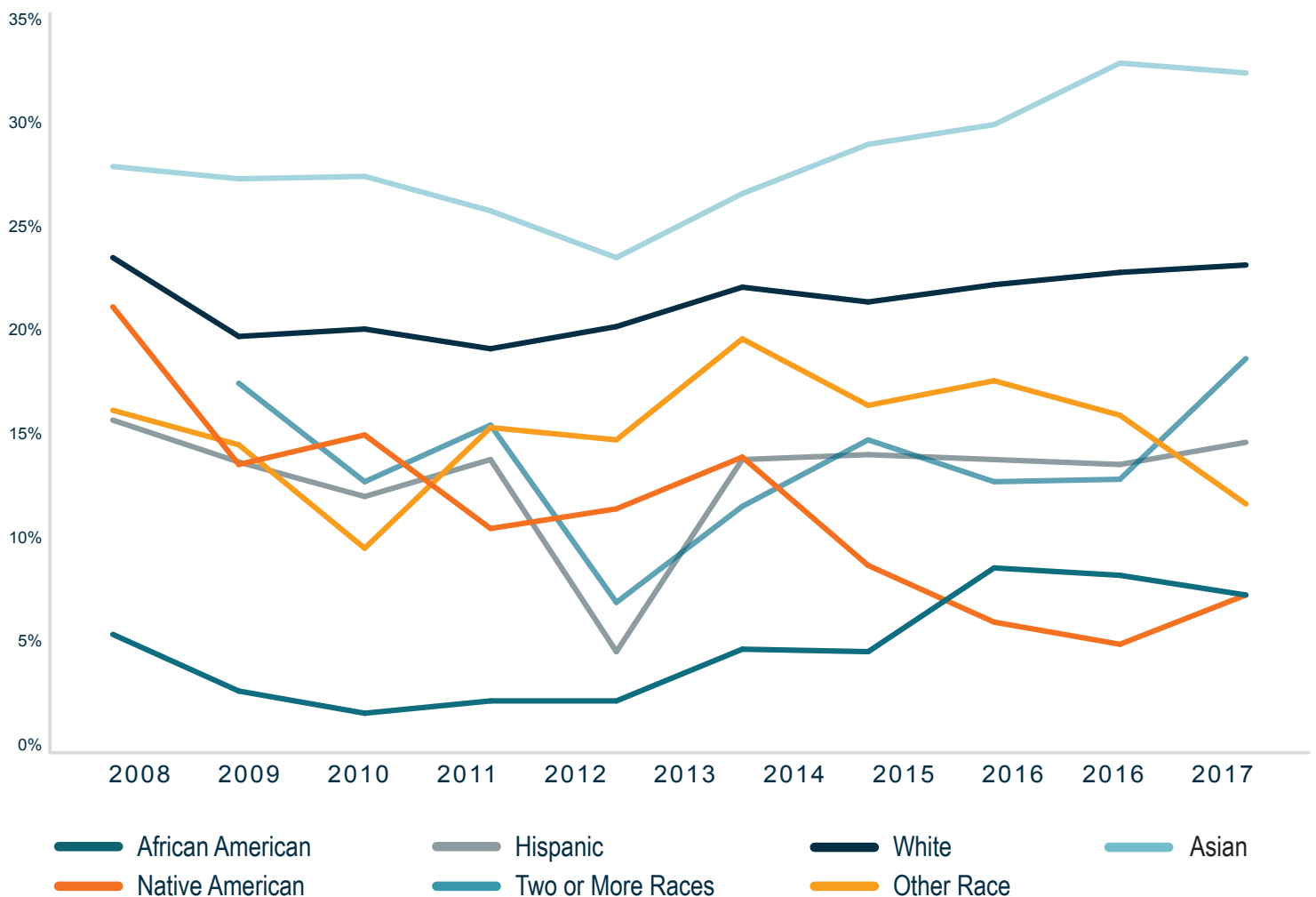
PROGRESS & RETENTION

The data have illustrated that students are enrolling in higher education at levels reflecting the state demographic profile—in terms of race/ethnicity, income levels, and geographic location—indicating general parity; however, large inequities and disparities manifest themselves after this initial entry point. Further, the data illustrate that academic preparations advantage certain groups of Missouri students at much higher rates than others, reflecting, or even magnifying, these disparities.

These trends continue as students progress through higher education. Historical statewide annual reporting from MDHEWD has long reported data on the number of credit hours students take, satisfactory academic

progress through programs of study, and fall to fall retention. However, disparities are again present when disaggregating progress data by demographic categories. More must be done to improve progress and retention rates among all Missouri students, especially those who are traditionally underserved or underrepresented, to ensure equitable and higher completion rates and better opportunities for Missouri students. Additionally, studies have shown that increasing racial diversity in higher education faculty contributes to increases in student access and retention at colleges and universities, particularly for students from minority backgrounds.

Figure 21: 15 to Finish: Percent of Total Undergraduates, by Race/Ethnicity



Source: EMSAS Fall Enrollment Files

15 TO FINISH

Patterns in enrollment trends indicate that over the past 10 years a vast majority of first-time, degree-seeking undergraduates enroll in 12 or more credits during their first semester. The number of students enrolling part-time, or in fewer than 12 credits, has fluctuated between 13 percent and 17 percent. However, those percentages change drastically when considering total undergraduate headcount. The percentage of part-time students more than doubles when considering total undergraduates, with nearly one third of all undergraduate students enrolled part time.

Although 70 percent of all undergraduates take 12 or more credits a semester, less than half of them are on track to complete their degree on time. For many years, the definition of full-time students has been the completion of 12 credit hours a semester, based on federal guidelines for financial aid, and has been extended to include 24 credits over the course of the academic year. However, due to the number of credit hours required to complete a degree, if students only take 12 credits a semester, they cannot complete their degrees in a timely manner.

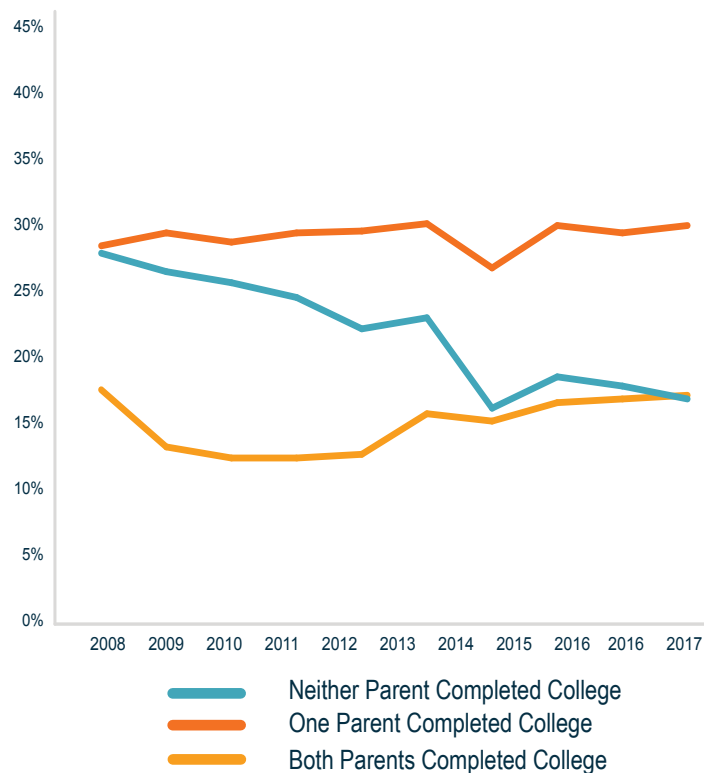
In recent years, students and institutions have been encouraged to rethink the way full-time status is regarded. The 15 to Finish initiative encourages students to complete at least 15 credits a semester or 30 credits an academic year. Because the initiative aims to increase the percentage of students across all categories that successfully complete 15 and 30 credit hours, it is important to analyze student success by this measure. When considered in this light, only about a quarter of all Missouri undergraduates are considered full time, and on track to graduate on time. While there is progress to be made for all students, different subgroups of the student population appear to be at a higher disadvantage than others.

The percentage of students who successfully complete 30 credit hours of classwork per academic year fluctuated between 19 percent and 23 percent over the 10-year period analyzed. Among this group of students, when analyzed by race (Figure 21), Black students are heavily underrepresented, and Hispanic students

are slightly underrepresented. While Native American students are also underrepresented in this category, the smaller sample size makes it more difficult to accurately determine the degree of underrepresentation as the percentage fluctuates significantly by year. The data indicate, however, that Native American students experience similar roadblocks as their Black and Hispanic peers, and their White and Asian peers do not experience these roadblocks to the same degree.

Low-income students are also underrepresented among students who successfully complete 30 credit hours per year. The 10-year average percentage for students at 200 percent of the poverty line or below is 19.8 percent, well below the proportional representation for low-income students across the state. First-generation students are also less likely to successfully complete 30 credit hours per academic year than students who have one or both parents that completed college (Figure 22). This gap has increased over time.

Figure 22: 15 to Finish by Level of Parental Education



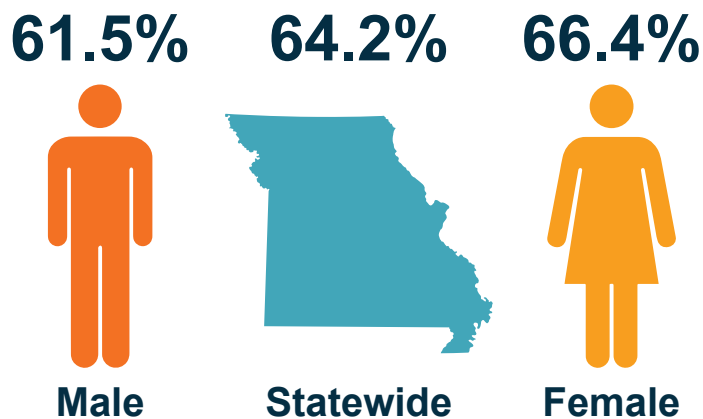
Source: EMSAS Fall Enrollment Files

FALL TO FALL RETENTION

The retention rates of Missouri students at public postsecondary institutions have long been reported by the department and, historically, rates have been around 70 percent, including transfer students, and 60 percent for those who stay at the same institution in which they initially enrolled. While disparities exist in regards to retention, the equity gaps are not as wide nor as extreme as in other areas.

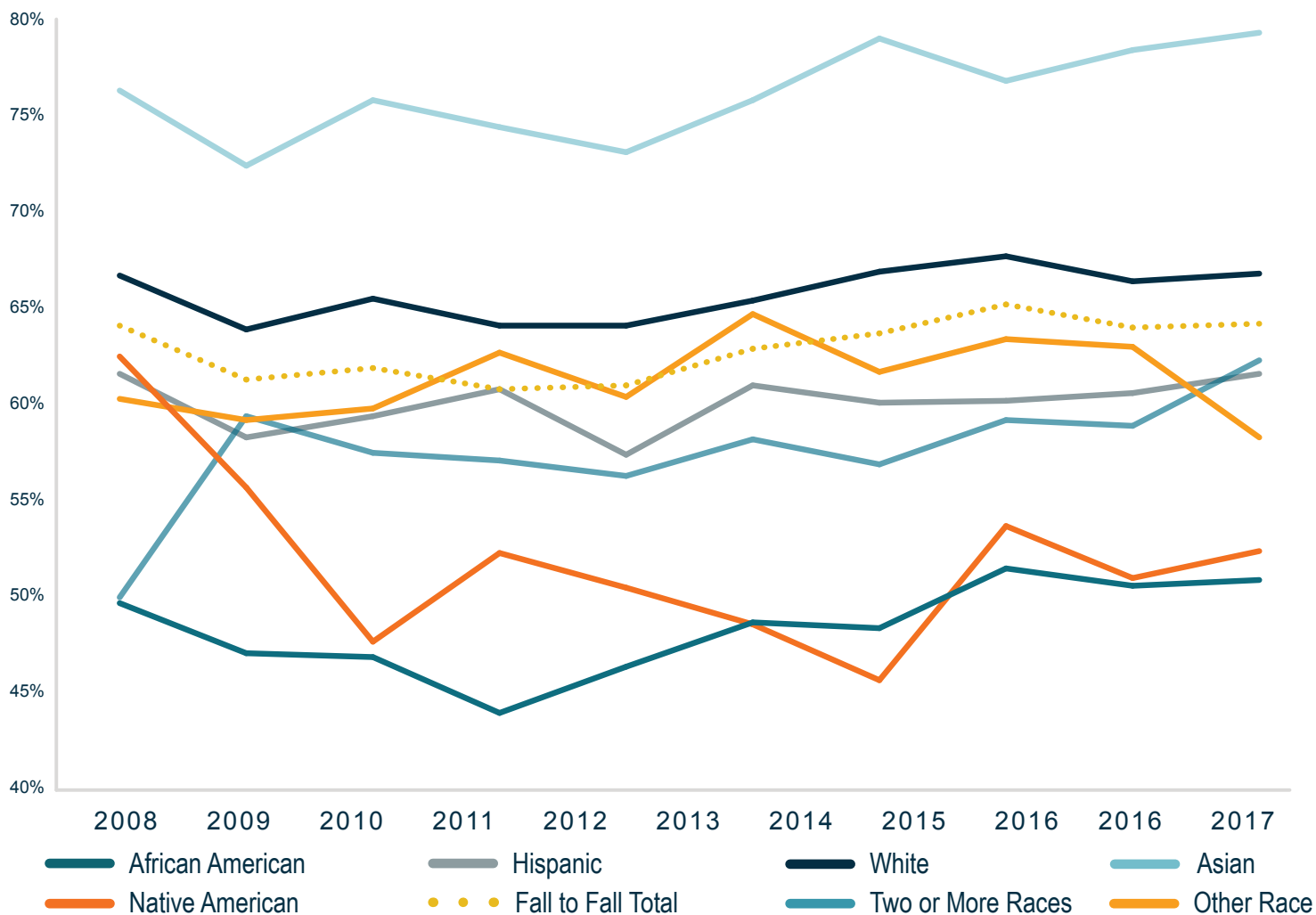
When comparing men and women in terms of general enrollment, there is a 10 percentage point difference between the sexes, with women outnumbering men (Figure 23). However, there is, on average, a five percent gap between the fall to fall retention rates of women and men. Women consistently achieve fall to fall retention at rates roughly two percent higher than the overall average while men fall roughly three percent below the overall average.

Figure 23: Fall to Fall Retention by Gender, 2017



Source: EMSAS Fall Enrollment Files, 2017

Figure 24: Fall to Fall Retention by Race



Source: EMSAS Fall Enrollment Files

FALL TO FALL RETENTION

Wider disparities become clear when analyzing along the lines of race (Figure 24). The dotted line in figure 24 represents the average fall to fall retention rates across all races. Asian and White students consistently achieve fall to fall retention at rates higher than the average, and other races typically fall below the average, particularly Black, Native American, and Hispanic students, though Hispanic students are much closer to the average.

Much like in other areas, gaps exist between students in different income levels and parental education levels. The largest gap in terms of persistence occurs when looking at income levels. Students at or below the poverty line are 1.5 times less likely to persist than students above the 200 percent poverty line, which has remained fairly constant over time. The data also indicate that a student's chance of persisting increases with parental education levels, and that first-generation students persist at a rate of 10 percentage points below the average.

CASE STUDY 1: STRATEGIES TO IMPROVE RETENTION RATES

SOUTHEAST MISSOURI STATE UNIVERSITY'S FALL-TO-FALL RETENTION RATES AMONG AFRICAN AMERICAN STUDENTS HAS INCREASED NEARLY 15% SINCE 2015. THE UNIVERSITY ANTICIPATES A THIRD CONSECUTIVE YEAR OF IMPROVEMENT, AS THE RATE STOOD AT 74.4% AT THE BEGINNING OF THE FALL 2019 SEMESTER.

Southeast Missouri State University created Academic Support Centers with targeted services for underrepresented populations like students with disabilities, first generation, low-income, and U.S. ethnic minority students, as well as academically at-risk students across all populations. These services aim to help students navigate higher education and prepare for success in their chosen careers. "The challenge is to meet them where they are and help them navigate the system," said Trent Ball, Assistant Vice President for Academic Diversity and Outreach.

"Students have to see the whole picture to see they can be part of that picture," said Tameka Randle, Assistant Director for Educational Access and Outreach Programs.

Students have to know they belong in college, Randle said. "They have the opportunity to feel they can be successful at this level. When students understand how the process works, then they can be successful."

SATISFACTORY ACADEMIC PROGRESS

In order to graduate on time and to stay eligible for financial aid, students must meet certain academic standards, known as satisfactory academic progress (SAP). These standards included maintaining a certain grade point average, completing a percentage of attempted credits (usually enrolling full-time), and making timely progress toward their degree. Maintaining SAP is often required to remain in good academic standing at an institution and within an academic program, while a failure to maintain SAP can result in academic probation, suspension, and loss of financial aid. For this section, SAP is defined as full-time enrollment, using the federal standard of 24 credit hours an academic year, and a 2.0 cumulative GPA. Wide gaps in satisfactory academic progress persist among all races, despite progress made by Black and Hispanic students. When analyzing the data in terms of

race/ethnicity, every group except for Native American students has seen some increase in the percentage of students maintaining satisfactory academic progress (Figure 25). Even though some progress has been made in this area, the gaps between racial groups have persisted, and in some cases widened, over this 10-year period.

The percentages of students achieving satisfactory academic progress in 2017 from 2008 have increased:

- Asian and White students have experienced an 8.8 percent increase and a 6.8 percent increase, respectively
- Black students have experienced a 4.6 percent increase
- Hispanic students have experienced a 2.4 percent increase

Figure 25: Satisfactory Academic Progress by Race/Ethnicity



Source: EMSAS Fall Enrollment Files

SATISFACTORY ACADEMIC PROGRESS

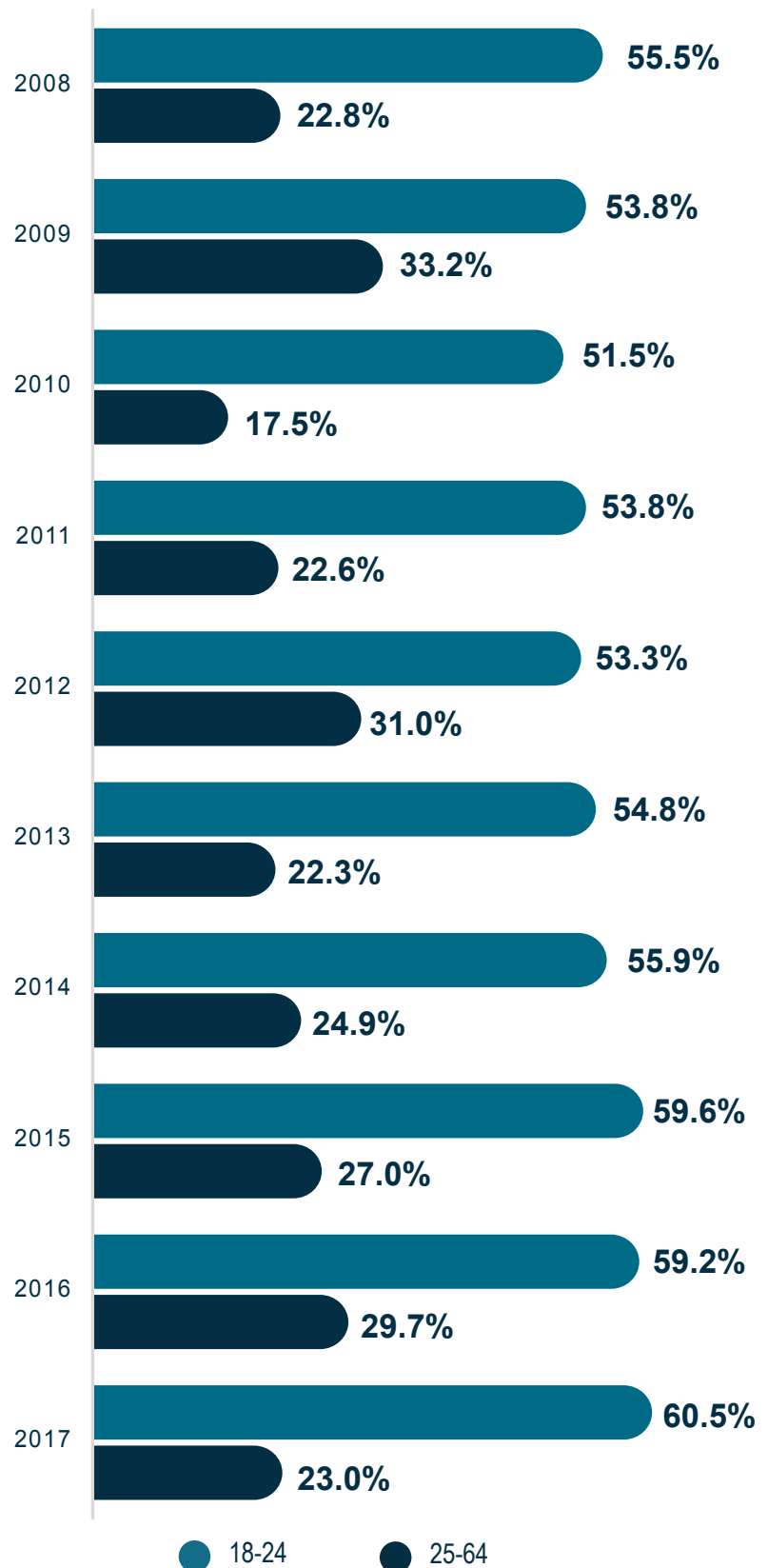
Although progress has been made for all groups, the starting points for each racial group is quite different. In 2008, the fall to fall retention rate for Asian and White Students was 61.1 percent and 57.7 percent, respectively. However, 48.2 percent of Hispanic students were retained from fall to fall, while 25.7 percent of Black students were retained. This stark gap has continued over the ten year period analyzed for this report.

Traditional college-age students are much more likely to maintain SAP per year than adult learners (see Figure 26). Over a 10-year period, there has been a steady and stable increase over time for college-age students, but not for adult learners.

“ WE’RE IDENTIFYING ROOT CAUSES THAT EITHER RESTRICT PROGRESSION OR PERSISTENCE. WE’VE LOOKED REALLY HARD AT OUR INTERNAL PROCESSES AND WHAT UNINTENTIONAL ROADBLOCKS WE MAY HAVE BEEN PUTTING IN THE WAY. ”

- DR. JAMIE HOYMAN, PROVOST,
NORTHWEST MISSOURI STATE UNIVERSITY

Figure 26: Satisfactory Academic Progress by Age

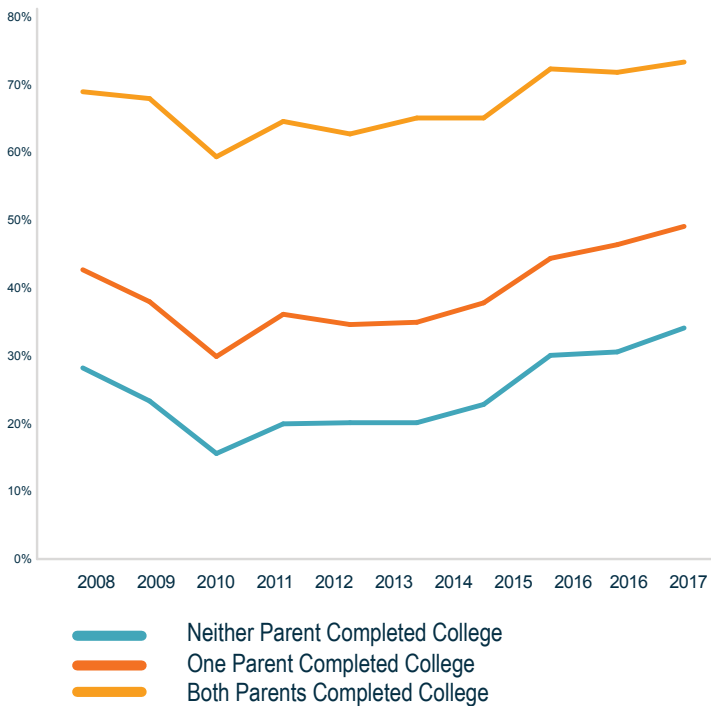


Source: EMSAS Fall Enrollment Files

SATISFACTORY ACADEMIC PROGRESS

The same gaps in satisfactory academic progress by parental education that existed in 2008 also existed in 2017 (Figure 27). While there have been some slight improvements across the board, first-generation students are much less likely to achieve satisfactory academic progress than their peers who have one or two parents that have a college education.

Figure 27: Satisfactory Academic Progress by Level of Parental Education

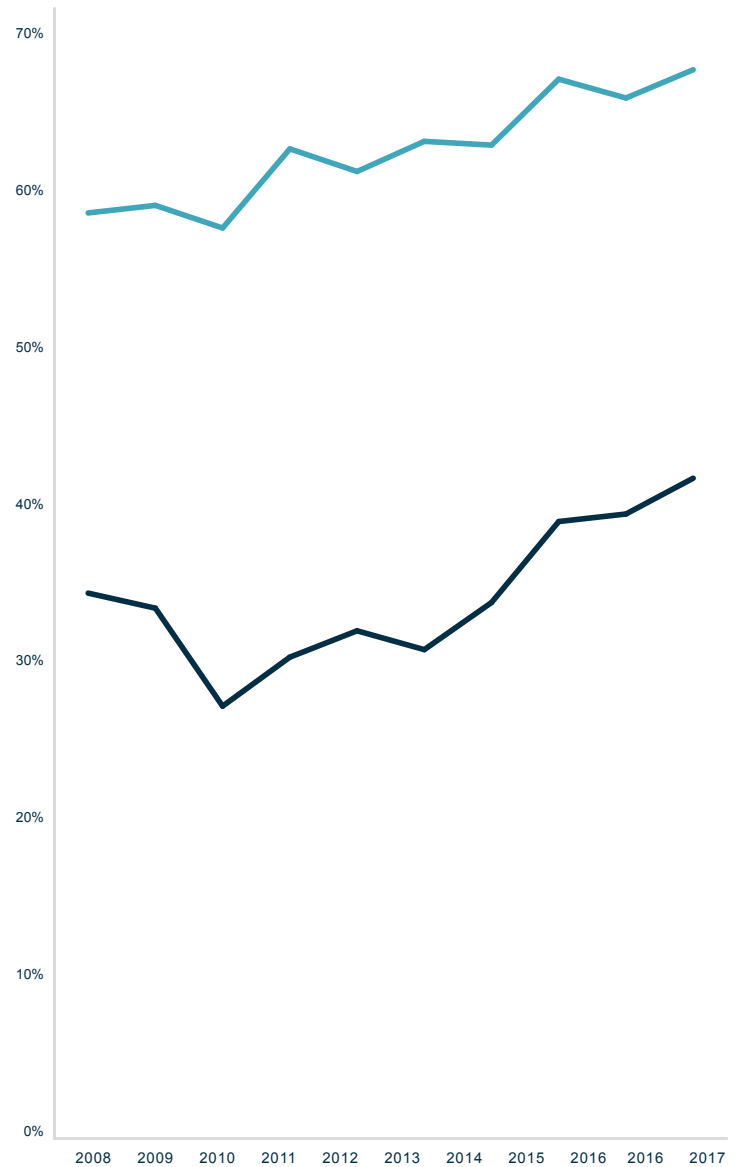


Source: EMSAS Fall Enrollment Files

A similar story emerges when analyzing the trends in satisfactory academic progress along the urban/rural divide. Both groups have experienced slight growth in the percentages of students achieving satisfactory academic progress, but gaps that existed between urban and rural students in 2008 still existed in 2017, with rural students achieving satisfactory academic progress at roughly 6 percent higher rates than urban students over the 2008 to 2017 time period. It is worth noting that the pool of urban students is considerably larger than the pool of rural students, and that the overall achievement gap is not large.

When analyzing the differences in satisfactory academic progress between students above and below 200 percent of the poverty level, low-income students consistently achieved satisfactory academic progress at rates 20-30 percent less than their higher income peers (Figure 28). These findings suggest that low-income students are heavily disadvantaged when it comes to achieving satisfactory academic progress.

Figure 28: Satisfactory Academic Progress by Income Level



Below 200 percent of Poverty Level
Above 200 percent of Poverty Level

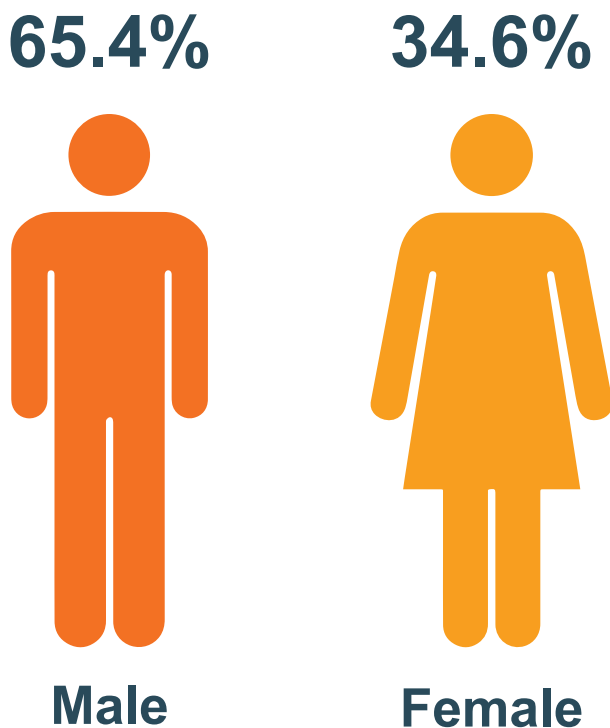
Source: EMSAS Fall Enrollment Files

FACULTY REPRESENTATION

Increasing racial diversity in higher education faculty contributes to increases in student access and retention at colleges and universities, particularly for students from minority backgrounds. *A Blueprint for Higher Education* makes the case that by increasing efforts to recruit and retain a diverse faculty, the health and diversity of the student body increases as well.

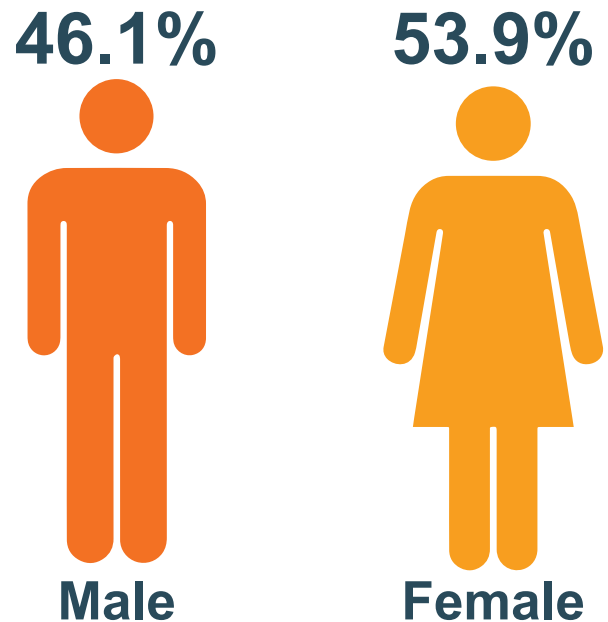
The available data from IPEDS show the disparities along gender and race lines, but there were limitations. There was no available information regarding tenured Asian and Black faculty in 2012, and there was not any available information regarding faculty of Native American descent. The data indicate that nationally, university professors are overwhelmingly White, which can lead to a lack of diversity in curriculum or in mentoring opportunities for students of color, and can create feelings of disconnect for students of color.⁷ In order to retain students from marginalized or underrepresented groups, researchers have indicated that institutions need to increase both cultural competencies and diversity of faculty.⁸

Figure 29: Tenured Faculty in 4 Year Missouri Public institutions by Gender, 2018



Source: IPEDS, 2018

Figure 30: Faculty in Missouri 2 Year Institutions by Gender, 2018



Source: IPEDS, 2018

When analyzing faculty along gender lines, males are overrepresented in the four-year sector (Figure 29), even though females consistently and significantly outnumber males in terms of undergraduate enrollment, and females are overrepresented in the two-year sector (Figure 30).

When disaggregating by race/ethnicity, Asian faculty are overrepresented and Black and Hispanic faculty are underrepresented. In the four-year sector, 12.1 percent of tenured faculty are of Asian descent, and roughly nine percent of faculty overall are of Asian descent. In comparison, Blacks and Hispanics are only 3.9 percent and 2.1 percent of the tenured faculty population, respectively (Figure 31); these trends hold true even when considering all instructional staff at four-year institutions. For the two-year sector, faculty are overwhelmingly White and predominantly female. Faculty of Asian descent are also overrepresented in the two-year sector, while Black and Hispanic faculty are underrepresented.

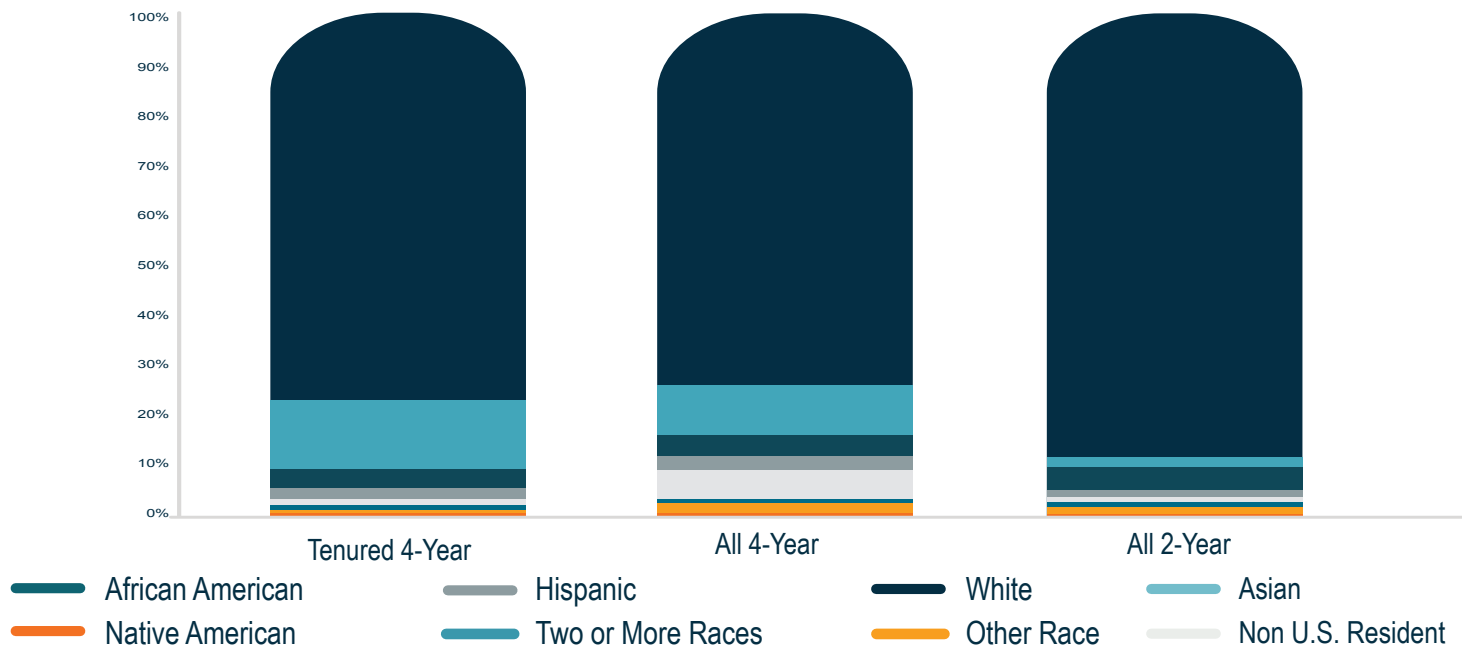
While this section illustrates disparities in faculty representation, the correlation to student access and success has not been fully examined in Missouri. The department recognizes the importance of this as an avenue of future research.

⁷ Tachelle Banks & Jennifer Dohy (2019). *Mitigating Barriers to Persistence: A Review of Efforts to Improve Retention and Graduation Rates for Students of Color in Higher Education*. Higher Education Studies, v9 n1 p118-131.

⁸ *Ibid*, p. 125-126.

FACULTY REPRESENTATION

Figure 31: Faculty in Missouri Institutions By Race



Source: IPEDS

CASE STUDY 2: ECONOMIC BENEFITS OF EQUITY

“TIME AND TIME AGAIN, WE HEAR FROM BUSINESS AND INDUSTRY THAT A DIVERSE LEADERSHIP TEAM AND A DIVERSE WORKFORCE PROVIDES A BETTER PERFORMING CORPORATE CULTURE.”

– BRIAN CROUSE, VICE PRESIDENT OF EDUCATION PROGRAMS AT THE MISSOURI CHAMBER OF COMMERCE

Bridging the gaps between education and business is Brian Crouse’s main role. In the Chamber’s plan, *Missouri 2030: An Agenda to Lead*, the focus is to bring more nontraditional populations into the

workforce, including exiting veterans and the 19,000 people exiting Missouri’s correctional facilities each year. Crouse advocates for policymakers to work to create and support financial aid policies that help students seeking short-term certificates as well as traditional four-year degrees, and to encourage employers to take on internships and work-based learning opportunities through tax incentives.

According to a study by The Education Trust, in the next 25 years, people of color will account for half of the U.S. population and over half of the working-age population. “Beyond being necessary for meeting attainment goals, addressing racial equity is necessary for fulfilling workforce needs, and according to the W.K. Kellogg Foundation, closing educational achievement gaps would result in an estimated \$2.3 trillion dollar benefit to the U.S. economy by 2050.”¹

1. Jones, Tiffany, and Katie Berger. “Aiming for Equity: A Guide to Statewide Attainment Goals for Racial Equity Advocates.” The Education Trust. January 2019.[1]

CASE STUDY 3: INNOVATIVE WAYS TO TRAIN INCARCERATED MISSOURIANS

**MORE THAN 19,000 MISSOURIANS
ARE RELEASED FROM PRISON
EACH YEAR, ACCORDING TO A
REPORT FROM THE MISSOURI
DEPARTMENT OF CORRECTIONS.
FOR MANY, THE DIFFERENCE
BETWEEN STAYING OUT OF
TROUBLE AND SUCCESSFULLY
RETURNING TO THE WORKFORCE
IS OBTAINING JOB TRAINING WHILE
INCARCERATED.**

State Technical College of Missouri has trained more than 1,500 Missourians through a number of grant programs aimed at training underserved and at-risk populations with high-demand skills. Included in that number are justice-involved individuals from Algoa Correctional Center, Boonville Correctional Center, Tipton Correctional Center, and Women's Eastern Reception, Diagnostic & Correctional Center in Vandalia.

Nancy Wiley, Federal Grant Manager for State Tech, said the challenges faced when an individual is released from prison can be insurmountable, including not having a job, a place to live, or a support system. For example, Brenna Humphries, 41, a single mother of four, has a good paying job, and is the sole provider for her family.

Humphries earned an Advanced Maintenance Technician Certificate of Completion from State Tech's MoSTART Program while she was incarcerated. When she was released from prison, she got a full-time maintenance worker job at Gateway Extrusions, Ltd., in Union, making \$16.85 an hour. She earned an NCRC keyboarding certificate, Safety & Accident Prevention certificate, CPR/First Aid/AED Card EPA Section 608, OSHA 10 Card, and Advanced Maintenance Technician Certificate of Completion.

"Just having those (certificates) gave me a foot in the door where they were willing to teach me and help me learn my job," Humphries said.

Wiley said one of the major issues of re-entry is that people coming out of prison don't know what services are available to them or what to ask for.

"I'd like to see the supportive services etch-a-sketch shaken and redesigned so that it is connected to higher education and marketed to people who need it," she said.

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GUIDING QUESTIONS AND NEXT STEPS

Higher education institutions must rethink how higher education is delivered to bolster the support individuals need to successfully progress towards completion of a quality postsecondary credential or degree. Unless drastic changes are implemented, Missouri will not meet its Big Goal for higher education. The Missouri Department of Higher Education & Workforce Development will continue its work to coordinate efforts around the state to reduce barriers, disparities, and gaps across all aspects in higher education. Further, the department will examine how departmental policies may benefit or hinder certain populations, and work to develop policies to reach all Missouri residents.

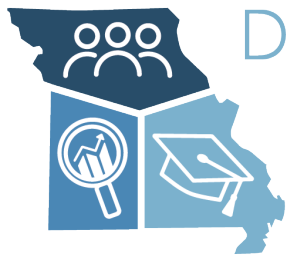
In pursuit of this endeavor, and to increase equity in higher education, the following questions will guide the department's approach:

- What approaches are needed to help high school students and families navigate postsecondary opportunities?
- What would it look like if admission standards did not impede equitable postsecondary outcomes in higher education?
- What does it mean to prioritize postsecondary success and progress over postsecondary access, and what student and structural supports are needed?
- What would it look like if employers and institutions of higher education collaborated to improve college success outcomes for underrepresented students?

The department recognizes that resolving equity gaps in higher education is a vast undertaking, and these equity gaps cannot be fixed overnight. For this reason, a two-pronged approach is necessary to effect change. First, there must be a focus on the policies and practices in which postsecondary institutions and the Department of Higher Education & Workforce Development have influence and jurisdiction, working to meet students where they are by making student-ready colleges instead of expecting college-ready students. Second, partnerships and collaboration with outside agencies and entities is critical to take a more holistic approach to enacting lasting change.

Additionally, further research is needed. As with all research, many more questions were raised than were answered. The scope of this report has been focused on traditional associate and bachelor's degree programs at Missouri's public postsecondary institutions in relation to access and progress, and is the first in a series of reports; subsequent reports will focus on success and affordability. Future avenues of inquiry can include populations not covered in this report, postsecondary degrees and programs outside of traditional two- and four-year degrees, and other postsecondary institutions, such as private colleges and universities and proprietary schools.

By working to make higher education more equitable, together, Missouri can strive toward building a stronger and more equitable state for students today and in the future.



DEPARTMENT OF
**HIGHER EDUCATION &
WORKFORCE DEVELOPMENT**

800-473-6757 // 573-751-3940

Fax: 573-751-6635 // dhewd.mo.gov // info@dhewd.mo.gov