



Annual Report on the Condition of College and Career Readiness

Report to the Coordinating Board for Higher Education

Missouri Department of Higher Education &
Workforce Development

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DEPARTMENT OF
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Executive Summary

Earlier this year, the Department of Higher Education & Workforce Development (DHEWD) issued its survey on College and Career Readiness to all of Missouri's public institutions of higher education. As a result of limitations placed on institutions because of COVID-19, there were a handful of institutions that were unable to submit their responses, and there were some categories covered in past reports that could not be adequately addressed in this report. Despite these outside factors, many of the positive developments that were observed in previous reports continued in this report, which analyzes data regarding math and English readiness and remediation.

One of the most encouraging findings from the report is that fewer students require remediation now than in 2014, for both math and English. The percentage of students requiring remedial math decreased by 23 percent, and the percentage requiring remedial English decreased by 29 percent. Additionally, the percentage of students who were able to successfully pass their gateway math course through corequisite remediation within one year increased by 107.1 percent from 2014 (33 percent) to 2018 (almost 70 percent). In comparison, the percentage of students who passed their gateway course through prerequisite math increased by 43.5 percent, from 25.5 percent in 2014 to 36.6 percent in 2018.

Total Student Body	2014	2018/2019	Percent Change
Needs remedial math	25.10%	19.30%	-23.1%
Needs remedial English	13.30%	9.50%	-29%

Not only are students who enroll in corequisites seeing favorable results in their gateway course pass rates, more students are enrolled in corequisites now than in 2014 by a considerable degree. Since 2014, total math corequisite enrollments have increased from 0.7 percent to 7.3 percent in 2019. While the data for English corequisite remediation is less complete than that of math corequisites, the percentage of first-time students that successfully passed their gateway English course increased from 41.3 percent in 2014 to 53.3 percent in 2018, a finding consistent with the reduction observed among students who required remediation in math.

Other key findings include:

- While prerequisite enrollments have declined since the implementation of Math Pathways, they remain successful in terms of their pass rates, as well as the pass rates of their associated gateway courses
- Adult learners and part-time students are more likely to enroll in prerequisite remediation than corequisite remediation
- Black Missourians are overrepresented among prerequisite remediation enrollments

Because of its success, MDHEWD staff will continue to evaluate trends in corequisite remediation, and pass rates in gateway courses. The department recommends the continuous expansion of both math and English corequisite supports at public postsecondary institutions, with an emphasis on English.

INTRODUCTION

To better understand both the profile and performance of Missouri's students in remediation, the Department of Higher Education & Workforce Development (DHEWD) distributes a remediation survey for public postsecondary institutions to provide information regarding their respective student bodies. The findings in this report draw directly from data provided in this year's remediation survey. While the data does contain some information for the 2019-2020 academic year, only the metrics that measure enrollment at the beginning of the fall 2019 semester will be addressed in this report, as information for the rest of the academic year is incomplete as of now. The data points that require information throughout an entire academic year will use 2018 as comparison. For these reasons, some findings will go through 2018 while others go through 2019. This is due to data limitations rather than inconsistencies in the report. Additionally, because of the institutional strain placed on Missouri's colleges and universities by the COVID-19 pandemic, the data presented in this report is less complete than in past reports.

The data for this report show that remediation rates have decreased almost universally, indicating that the implementation of the reforms laid out in *Principles of Best Practice in Remedial Education* have been effective. This extremely positive finding applies to both sectors, both first-time students and the total undergraduate population, and both math and English. While there is still progress to be made, particularly when it comes to the continued implementation of English corequisite remediation, the fact that student outcomes are improving on virtually all fronts should be celebrated. Furthermore, the broad successes that have been observed in student content readiness make it easier to identify where areas of improvement are.

While past versions of this report have only had data on students who enrolled in remedial education, this report utilizes data on the institutional college-readiness evaluation of students, which is a larger—and previously underreported—subset of students.

FIRST-TIME STUDENTS – MATH REMEDIATION

The percentage of first-time students who needed math remediation decreased from 35.6 percent in 2014 to 29.8 percent in 2019, a **16.3 percent decrease** over the time period analyzed. This is an important finding to contextualize the successes observed in remedial courses – in the sense that the positive news is twofold. Not only are the students who need remediation observing successful outcomes, as will be discussed in the following sections, but the group of students requiring those additional academic supports is shrinking, most likely as a result of using multiple measures (including high school GPA) to place students in the appropriate courses as outlined in *Principles of Best Practice*.

Another indication of progress comes from analyzing the pass rates for college-level math courses within one year of enrollment. For this metric, increases were observed both for two-year and four-year schools. For all students analyzed at the two-year sector, the share of students that passed a college-level math course within one year increased **from 13.1 percent in 2014 to 17.3 percent in 2018**. The percentage of first-time students in the four-year sector that successfully passed a college-level math course within one year increased **from 42.2 percent in 2014 to 43.7 percent in 2018**. While the four-year sector has a larger share of students who passed successfully, the two-year sector observed a larger increase. Given the upward trajectory in the data for students at two-year institutions, particularly in respect to the positive outcomes with corequisite remediation, the pass rates will likely continue to increase over time.

Comparing Corequisite Supports to Traditional Models

There are two modes of remedial courses at Missouri's public colleges and universities – prerequisite courses designed to be taken prior to the gateway course, and corequisite courses designed to be taken

at the same time as the gateway course. The implementation of corequisite remediation was directly spurred on by Missouri HB 1042, as well as the original *Principles of Best Practice in Remedial Education* document which requires colleges and universities to replicate best practices in remedial education. Now that the math corequisite model has been implemented statewide for several years in Missouri, there is considerable trend data from which to pull. The findings, up until this point, are decidedly in favor of the corequisite model, in terms of both remedial pass rates and gateway pass rates via the corequisite.

Corequisite enrollment in remedial math for first-time students increased from **1.7 percent in 2014 to 10.4 percent in 2019**, indicating increased awareness and popularity of corequisite supports. This increase leads into another strong positive development observed from the data – the percentage of students who passed their gateway math course with a C or better almost doubled from 2014 to 2018, from **37.9 percent to 75.1 percent**. As the corequisite model of remediation becomes more widely implemented, and more students enroll in this model of remediation, these successful outcomes should continue to increase over time. Given the statutory responsibility for institutions to pursue best practices in remediation as outlined in RSMo 173.005.2(7), the corequisite model is likely to continue growing both in enrollments and implementation.

Figure 1: Corequisite Math Remediation – First-Time Students	2014	2018/2019	Percent Change
Enrollments	1.7%	10.4%	512%
Passed gateway course with C or better	37.9%	75.1%	98%

At the same time, the percentage of first-time students that enroll in prerequisite courses has declined, **from 55.5 percent in 2014 to 36.2 percent to 2019**. Part of this may be explained by the increase of students opting for the corequisite model of remedial math rather than the prerequisite model. However, for students that do enroll in prerequisite coursework, definite progress has been made over time. While the percentage of students who pass their prerequisite courses has stayed fairly steady from 2014-2019, the percentage of students who pass the gateway course by the following June **has increased from 20.2 percent in 2014 to 32.1 percent in 2018**; while impressive, the rate is still half of the corequisite rate.

Figure 2: Prerequisite Math Remediation – First-Time Students	2014	2018/2019	Percent Change
Enrollments	55.5%	36.2%	-35%
Passed gateway course with C or better	20.2%	32.1%	59%

Analysis by Sector

Even when disaggregating each sector, these same trends continue, both in gateway course and remedial enrollments. The percentage of first-time, college-ready students that enrolled in a gateway math by the following fall in the two-year sector held constant at **roughly 52 percent from 2014 to 2019**. **However, only 5.4 percent of students at two-year schools requiring remediation in 2018 enrolled in a corequisite course. That percentage increased slightly to 6.8 percent in 2019.**

In terms of enrollment by type of remediation, statewide trends continue when disaggregated by sector; enrollments in traditional prerequisite courses have declined while enrollments in corequisite courses have increased. The percentage of students at two-year schools that enrolled in prerequisite courses has declined over the time analyzed, **from 60 percent in 2014 to 44 percent in 2019**. Part of this may be explained by the increase in corequisite enrollments, but since it is comparatively slight in the two-year sector, there are likely other factors at play and this requires further study. In the four-year sector, the

percentage of first-time students enrolling in math prerequisite courses at four-year institutions declined from **47.1 percent in 2014 to 26.3 percent in 2019**. Further, the data indicate an increase in corequisite enrollments at the four-year sector, from **4.8 percent in 2014 to 14.8 percent in 2019**. For the two-year sector, no institutions offered math corequisites in 2014, but enrollments increased between 2018 and 2019, from 5.4 percent to 6.8 percent, respectively. This difference is telling, considering there are several four-year institutions that do not offer corequisite math remediation.

69.9% of first-time students at two-year schools that took a corequisite math course passed it with a C or better by the fall of the year they enrolled, and 82.1% had passed by June of the following year.

One of the most encouraging findings from the data—and perhaps the strongest piece of evidence that the implementation of corequisite remediation better carries out the statutory responsibility for institutions of higher education to pursue best practices in remedial education outlined in HB 1042—is the pass rate for students completing their gateway math through the corequisite model of

remediation. Of the students that enrolled in a corequisite math course at a two-year school, **69.9 percent passed their gateway course with a C or better by the fall of that year, and 82.1 percent had passed by June of the following year**. The percentage of students enrolled in corequisite courses who successfully passed their gateway course with a C or better increased considerably for the four-year sector as well; these positive student outcomes hold for the four-year sector in addition to the two-year sector (**37.9 percent in 2014 to 71.2 percent in 2018**).

There has been some improvement on this metric when it comes to prerequisite courses—the percentage of students that pass their gateway course by the following June for the two-year schools doubles from **11.1 percent in 2014 to 22.5 percent in 2018**, and for students at four-year schools the figure increases from **42.0 percent in 2014 to 51.7 percent in 2018**. However, the improvement is not to the same scale as it is with the corequisite model. As Missouri’s public universities strive to uphold the guidelines presented in *Principles of Best Practice*, this difference in effectiveness should be kept in mind.

Gateway Math Course Enrollment

Another difference between the sectors is the percentage of first-time students enrolled in a gateway course within a year. For the two-year sector, this percentage **increased slightly from 52 percent in 2014 to 55.7 percent in 2018**. The increase in the four-year sector was much larger, increasing from **50.7 percent in 2014 to 66.1 percent in 2018**. While further research needs to be conducted to accurately ascertain why this percentage increased more for the four-year sector than the two-year sector, one plausible explanation is that the percentage of first-time students enrolling in corequisite coursework, in which students are concurrently enrolled in a gateway course, in the four-year sector accounts for some of this gap.

Another possible explanation for this gap is the discrepancy between the sectors in the percentage of students declaring a major that doesn’t require math. While the overall numbers decrease from **8.3 percent in 2014 to 6.9 percent in 2019**, disaggregating by sector shows students at two-year institutions declare majors that don’t require math more often than students at four-year schools. At the two-year sector, the percentage of students declaring a major that doesn’t require math decreased from **13.4 percent in 2014 to 11.4 percent in 2019**. While a similar decline is observed in the four-year sector, the figures for the students at those schools went from **3.6 percent in 2014 to 2.9 percent in 2019**.

FIRST-TIME STUDENT DEMOGRAPHICS – MATH REMEDIATION

This section analyzes the demographic information of first-time students in the years 2014, 2018 and 2019, and those in need of math remediation. While data from all Missouri's public institutions are not available, and certain institutions do not offer remedial coursework, this selection of data offers the best insights available regarding the profile of Missouri students in remediation education, by type of remediation enrollment. In addition to the demographic profile of first-time students overall, this section splits the student population by sector, analyzing the students at two-year and four-year schools separately.

As demonstrated in the *2019 Equity in Missouri Higher Education Report*, the demographic profile for all first-time students is similar to the demographic profile of the state as a whole. Consistent with how the department measured inequities in the *Equity Report*, the demographic profile compares American Community Survey (ACS) population estimates with populations of demographic groups observed in the department's data. While the capacity to do so was limited for this report due to small sample sizes, this report will discuss trend data and meaningful differences where available.

The gap between women and men among first-time students is roughly 55 percent-45 percent, with minor fluctuations from year to year. The racial profile of first-time students also holds roughly true to the state demographic profile. The vast majority of first-time students are full-time students (defined as taking 12 or more credit hours) – while percentages vary slightly over the years analyzed, the gap between the two stays relatively constant at 85 percent full-time to 15 percent part-time. Additionally, the demographics of first-time students differs when analyzed by age. While the definition of college-age for the purposes of this study is 17-22 instead of 18-25, the percentage of students deemed college-aged ranges **from 91.0 percent in 2014 to 92.2 percent in 2019**.

Statewide Breakdown by Remediation Type

Disaggregating the overall demographic profile of first-time students by type of remedial coursework reveals a more complicated picture. Because the number of students taking corequisites is much smaller than the population taking prerequisites, this report only compares the populations for which there are large enough figures to ascertain trends over time.

The most glaring difference between the profile of all first-time students and the profile of students taking corequisites courses is gender. A greater share of women were enrolled in corequisites than men regardless of the year analyzed. However, due to small sample sizes, the numbers fluctuate too much to truly ascertain a meaningful trend – in 2014, the corequisite enrollment percentages were 83.6% female to 16.4% male, while in 2018 it was 66.8% female to 33.2% male. More years of stable trend data are necessary to accurately ascertain the specific degree to which males are underrepresented in corequisite coursework, but the data clearly show that females make up the bulk of corequisite enrollments regardless of the year analyzed.

A positive development, however, is that Black Missourians are equitably represented among the population of those who enroll in corequisites. However, this finding should be taken with the context that corequisite remediation rates are different between the two- and four-year sector, and pass rates reveal equity gaps along the lines of race, which will be addressed later in this section.

Since the population of students taking prerequisite courses is larger than that of the students taking corequisites, the data trends are steadier over time and less prone to fluctuation from year to year. **From 2014 to 2018, the gap between women and men in prerequisite courses remains at 60 percent to 40 percent.** While men are underrepresented, the gap is not as wide as it is among takers of corequisite

math remediation. The gap between full-time and part-time students in prerequisite remediation mirrors the gap observed in first-time students overall, largely maintaining the 85 percent-15 percent gap despite a slightly higher percentage of part-time students taking prerequisite courses in 2014. Both Black and Hispanic Missourians are equitably represented among those who take prerequisite courses. When separating out the subpopulation of students who passed their prerequisite courses with a C or better, these trends still hold.

Sector Breakdown by Remediation Type

When comparing the student profiles of two- and four-year schools along the lines of gender, women typically outnumber men roughly by 5 percent-10 percentage points, regardless of sector. However, comparing sectors by race tells a more complicated story. Due to population sizes, only the populations of Black and White Missourians are sufficiently large across populations to draw meaningful comparisons.

THE PERCENTAGE OF STUDENTS THAT PASSED THEIR GATEWAY MATH COURSE THROUGH COREQUISITE REMEDIATION INCREASED BY 107.1%, FROM 33.6% IN 2014 TO 69.6% IN 2018.

Among all first-time students analyzed, Black students hover around 13 to 14 percent, which more or less matches the percentage of Black college-age Missourians across the state. Their representation differs when comparing corequisites and prerequisite classes both in enrollments and in the pass rates.

The share of Black Missourians that pass prerequisite courses with a C or higher at two-year institutions over the years analyzed, like the share of Black Missourians among all first-time students, hovers around 13 percent. For corequisite courses, that percentage drops to roughly 4 percent both for the enrollment and pass rates, indicating that Black students are vastly underrepresented in corequisite supports at the two-year sector. However, Black Missourians are equitably represented among enrollments and pass rates for both corequisite and prerequisite remediation at four-year schools.

The data demonstrate inequities among first-time and adult students, regardless of sector, by credit-hours taken. In both the two- and four-year sectors, full-time students and traditionally college-aged students are disproportionately more likely to take and pass both prerequisite and corequisite remedial math courses. While part-time students are less underrepresented in the enrollment and pass rates for prerequisite courses at two-year schools, these equity gaps cannot be overlooked.

ALL UNDERGRADUATES – MATH REMEDIATION

While the previous sections focused on first-time students, the following section will focus on the total undergraduate population. Within this population, the data show that the percentage of undergraduate students that needed some form of remedial math decreased from **25.1 percent in 2014 to 19.3 percent in 2019**.

Early results from the implementation of the corequisite model show promise in increasing positive student outcomes, and recent data add to this promise. The percentage of all undergraduate students enrolled in corequisite math remediation increased from **0.7 percent in 2014 to 7.3 percent in 2019**.

While the data on students who passed their corequisite course with a C or better are incomplete for the year 2019, the percentage of students who pass is around two-thirds of all corequisite enrollments (68.7 percent in 2014, 63.1 percent in 2018).

The strongest indicator for the success of corequisite remediation is observed through the percentage of undergraduates who successfully passed their gateway math course through corequisite remediation by the end of the academic year in which it was taken. This percentage more than doubled over the time analyzed as shown in Figure 3, from **33.6 percent in 2014 to 69.6 percent in 2018**. This increase occurred at the same time as enrollment in corequisite supports increased.

Enrollments in corequisites increased from 2014 to 2019, while enrollment rates for prerequisite math remediation declined from **34.2 percent in 2014 to 22.1 percent in 2019** as institutions continued to convert over to the corequisite model of remediation. However, for students enrolled in prerequisites, their outcomes were similarly positive to that of the corequisite math group. Roughly half of all undergraduate students passed their prerequisite math with a C or better (50.7 percent in 2014, 49.7 percent in 2018), and the percentage of students who successfully went on to pass their gateway math course increased from **25.5 percent in 2014 to 36.6 percent in 2018** as shown in Figure 4. While these results are certainly positive, the data show that the corequisite model is more effective in getting students to pass their gateway course successfully than the prerequisite model, which reflects what the data found for first-time students.

Figure 3: Corequisite Math	2014	2018/2019	Percent Change
Enrollments	0.7%	7.3%	942.9%
Passed gateway by June	33.6%	69.6%	107.1%

Figure 4: Prerequisite Math	2014	2018/2019	Percent Change
Enrollments	34.2%	22.1%	-35.4%
Passed gateway by June	25.5%	36.6%	43.5%

Even after disaggregating all the data of all undergraduate students by sector, most of these trends still hold; however, there are a few noteworthy differences between the sectors. For students who needed remedial math, the population of those students is much higher at the two-year sector than the four-year sector. This percentage has trended downward over time (**38.3 percent in 2014 to 22.5 percent in 2019, a 41.3 percent reduction**), but there is still a noteworthy gap as the percentage for the four-year sector has held fairly constant around 16 percent in the years analyzed as shown in Figure 5.

Figure 5: Students in need of remediation	2014	2019	Percent Change
2 year schools	38.3%	22.5%	-41.3%
4 year schools	16.1%	15.9%	-1.2%

Aside from these metrics, trends in the data of all undergraduate students are observable in both sectors. The data regarding corequisite math remediation holds true in both sectors. While the percentage of students enrolled in these courses is higher in the four-year sector than the two-year sector, both have increased as shown in Figure 6 (**0 percent in 2014 to 5.0 percent in 2019 for the two-year sector, 1.9 percent in 2014 to 9.3 percent in 2019 for the four-year sector**).

Figure 6: Corequisite enrollments by sector	2014	2019	Percent Change
2 year schools	0.0%	5.0%	N/A
4 year schools	1.9%	9.3%	389.5%

While the percentage of those who passed their math corequisites with a C or higher declined slightly in the four-year sector, from 68.7 percent in 2014 to 58.0 percent in 2018, the 2018 pass rate for the two-year sector was 72 percent, a considerably high percentage given that corequisites were not implemented at two-year schools in 2014. The pass rates for gateway courses through these corequisite math supports in both sectors have also seen marked improvement, growing from **33.6 percent in 2014 to 59.8 percent in 2018 for the four-year sector**. While there was no 2014 baseline data to compare to

IN 2018, THE PASS RATE FOR GATEWAY MATH COURSES VIA COREQUISITE REMEDIATION WAS 59.8% FOR THE FOUR-YEAR SECTOR AND 86.8% FOR THE TWO-YEAR SECTOR.

for the two-year schools, the gateway pass rate via corequisites by **June of the 2018-19 academic year was 86.8 percent**. This dramatic growth in the pass rates illustrates both the effectiveness of the corequisite model as well as the increasing degree of content readiness for Missouri's student body.

The corresponding decline in enrollments for prerequisite math courses, as the corequisite model was implemented in Missouri's public institutions, happened in both the two-year and four-year sectors. Total undergraduate enrollments in prerequisite math remediation decreased from 33.5 percent in 2014 to 22 percent in 2019 for the two-year sector, and from 27.4 percent in 2014 to 15 percent in 2019 for the four-year sector. The pass rates for prerequisite remedial math held fairly constant for both sectors, staying around 56 percent for the two-year sector and 40 percent for the four-year sector. However, the percentage of students who successfully went on to pass their gateway math course increased for both sectors, increasing from **15.4 percent in 2014 to 23.5 percent in 2018** for the two-year sector, and from **48.1 percent to 59.9 percent in 2018** for the four-year sector, as shown in Figure 7.

Figure 7: Passed gateway through prerequisite	2014	2018	Percent Change
Two-year sector	15.4%	23.5%	52.6%
Four-year sector	48.1%	59.9%	24.5%

ENGLISH REMEDIATION

This section evaluates the data provided from Missouri's public institutions regarding remedial English coursework. Due to data limitations and the limited implementation of corequisite English courses as compared to math courses, there will be a handful of metrics that will not be covered in this section that were covered in the math section. The caveats provided in the math section of this report regarding 2018 and 2019 data hold true here as well.

Over the time period analyzed, the percentage of first-time degree-seeking students needing remediation declined from **21.7 percent in 2014 to 16.0 percent in 2019**. In analyzing the total undergraduate

THE PERCENTAGE OF OVERALL STUDENTS WHO REQUIRED ENGLISH REMEDIATION DECREASED BY 29%. FIRST-TIME STUDENTS REQUIRING REMEDIAL ENGLISH DECREASED BY 26% OVER THE TIME PERIOD ANALYZED.

student body, the percentage of students needing remedial English decreased, from **13.3 percent in 2014 to 9.5 percent in 2019**.

First-time Students – English Remediation

While corequisite English remediation has not been implemented to the

same scale as corequisite math remediation, enrollments in corequisite English increased considerably for first-time degree-seeking students, from **12.7 percent in 2014 to 21.9 percent in 2019**. Not only did enrollments increase sharply for first-time students, but pass rates did as well. The percentage of first-time students who passed their corequisite English remediation increased from **54.2 percent in 2014 to 65.5 percent in 2018**, and the percentage that successfully passed their gateway course by June increased from **67.7 percent in 2014 to 81.2 percent in 2018**.

While first-time degree-seeking enrollments in prerequisite courses declined from 43.9 percent in 2014 to 33.3 percent in 2019, students who did enroll saw positive outcomes, though not to the same extent as those enrolled in corequisite supports. Roughly two-thirds of all first-time degree-seeking students passed their English prerequisites, and the percentage that passed their English gateway course through prerequisite remediation increased from 34.1 percent in 2014 to 51.9 percent in 2019.

Figure 8: First-Time Students - English	2014	2018/2019	Percent Change
Needed Remediation	21.7%	16.0%	-26%
Corequisite Enrollment	12.7%	21.9%	72%
Prerequisite Enrollment	43.9%	33.3%	-24%
Passed Gateway - Corequisite	67.7%	81.2%	20%
Passed Gateway - Prerequisite	34.1%	51.9%	52%

Similar to the trends held after disaggregating the undergraduate student body by sector, the same trends observed in first-time degree-seeking students hold true even after disaggregating by sector. From 2014 to 2019, the percentage of students who needed remedial English decreased by 6.3 percent and 5.7 percent in the two- and four-year sectors respectively. While the 2014 data are incomplete for gateway pass rates for students taking corequisite remediation, the 2018 percentages were 83 percent for the two-year sector and 77 percent for the four-year sector. For prerequisite remedial English, the percentage of students who passed in both sectors was roughly half.

The key area where the two sectors differ is in the percentage of students who pass college-level English within one year. For the two-year sector, that percentage held constant at roughly 40 percent from 2014 to 2018, while that figure was around 53 percent for the four-year sector.

Given the statutory responsibilities of Missouri’s public institutions to implement best practices in remedial education as outlined in HB 1042, as well as the successes observed with more widely implemented corequisite courses in math, similar positive outcomes should become apparent in remedial English as time goes on.

All Undergraduates – English Remediation

Statewide, the percentage of total undergraduate students who required remedial English and enrolled in corequisite supports doubled from **7.7 percent in 2014 to 15.4 percent in 2019**. The implementation appears to have been largely successful, with the pass rate for these courses increasing from **66 percent in 2014 to 73 percent in 2018**. Additionally, the percentage of students who successfully passed their gateway English through their corequisite course by the following fall increased from **86.3 percent in 2014 to 96.2 percent in 2018**.

The share of students enrolling in prerequisite English remediation fluctuated over the years analyzed, from 20.2 percent in 2014 up to 22.3 percent in 2018, and then down to 15.4 percent in 2019. Roughly two-thirds of all students in prerequisite classes passed those classes in 2014 and 2018, and the

percentage of students who passed their gateway English course through their prerequisite coursework increased from 35.0 percent in 2014 to 51.5 percent in 2018.

After disaggregating undergraduates by sector, most of the same trends still hold with a few minor differences. While a higher percentage of students in the two-year sector required remedial English than the four-year sector, the same decline is seen when looking at the aggregate student body in both sectors. The English remediation rate declines from 16.6 percent in 2014 to 13.4 percent in 2019 in the two-year sector, and from 10.4 percent in 2014 to 6.6 percent in 2019 in the four-year sector.

Figure 9: Remedial English	2014	2019	Percent Change
Required remediation	13.3%	9.5%	-29%
Enrolled in corequisite	7.7%	15.4%	100%
Enrolled in prerequisite	20.2%	15.4%	-24%

Enrollments in corequisite English remediation, as a share of students, were higher in the two-year sector than the four-year sector. This differs from the department's findings regarding math corequisites, which were implemented more at four-year schools. The 2019 English remediation figures for both sectors were 19.3 percent and 7.7 percent respectively. While the data provided regarding the pass rates for corequisite English courses was incomplete in some areas, the gateway pass rate for students in the four-year sector increased from 57.7 percent in 2014 to 75.8 percent in 2018. The percentage of students who passed their gateway course through prerequisite coursework in the four-year sector increased as well, from **48.2 percent in 2014 to 56.6 percent in 2018**, as shown in Figure 10.

Figure 10: Passed gateway with C or better- 4Y	2014	2018	Percent Change
Corequisite remedial English	57.7%	75.8%	31%
Prerequisite remedial English	48.2%	56.6%	17%

FIRST-TIME STUDENT DEMOGRAPHICS - ENGLISH

Due to small sample size, the demographics section of this report will not provide as much detail as the math section, nor will the data be disaggregated by sector.

When analyzing overall demographics, the overwhelming majority of first-time degree-seeking students were college-aged, and taking a full-time credit hour load. Women outnumbered men roughly 55 percent-45 percent over the years analyzed. The racial composition of first-time degree-seeking students largely matched the state demographic profile.

Where disparities do exist, however, are in the comparison between corequisite and prerequisite courses. These disparities fall mostly along the lines of race, age, and credit hour load. While traditionally college-aged students and full-time students are overrepresented in both forms of remediation, they make up virtually all the enrollments in corequisite remedial English courses. As institutions scale up implementation of corequisite English courses, the inclusion of adult learners and part-time students should be prioritized to close this gap.

Black Missourians, while not underrepresented among those who take and pass corequisite English remedial courses, are vastly overrepresented among those who take and pass prerequisite English courses. In 2018, 17.5 percent of Missourians who took a corequisite English remedial course and passed were Black. However, 39.2 percent of Missourians who passed their prerequisite English course were Black. Since data appear to show the corequisite model is more effective than the prerequisite

model, efforts should be made to bring more Black students into the fold in addition to adult learners and part-time students.

CONCLUSION

The findings in this report build on the positive results reported in previous reports. Students require remediation at declining rates, and, as corequisite remediation continues to take hold, the gateway pass rates for both math and English have also improved. However, there is still work to do and progress to be made. One area in which the department hopes to see continued success is in the implementation of English corequisite remediation. As more courses are administered in this manner, the positive trends observed will ideally accelerate towards the figures observed for math corequisites.

Another area in which progress can be made, and will likely happen naturally as more corequisite courses are offered, is a concerted effort to reach out to students who are underrepresented in these courses. While the present data are promising, having more years of trend data will benefit both the department and postsecondary education in Missouri as a whole. Furthermore, future reports and surveys will resume focus on individual corequisite course offerings, as limitations from COVID-19 prevented this report from analyzing that data in as much detail as past reports.

The next steps for the department are to continue administering the survey on College and Career Readiness to build on the data explored in this report. Since there is less trend data regarding English remediation than math remediation, future reports will more adequately show data over time regarding the effectiveness of English remediation. The department hopes these changes, in conjunction with the progress already made in this area, will continue to contribute toward increased gateway course pass rates and reduced remediation rates for all of Missouri's students.