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Minnesota State Course Placement Practices Review

REPORT TO THE COMMISSIONER OF THE MINNESOTA OFFICE OF HIGHER EDUCATION

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Course Placement and Developmental Education Impact on Students

The process of assessing and placing new entering postsecondary students in either college-level math and English courses or developmental education will affect students' likelihood of earning a postsecondary credential. Research has established that placement of students into prerequisite developmental education courses decreases their likelihood of completing college-level math and English courses in their first year, persisting to a second year, and earning a postsecondary credential. Because completion of college-level math and English courses in the first year are predictive of student persistence and credential completion, prerequisite developmental education negatively impacts completion of a postsecondary credential.

Traditionally postsecondary institutions have relied on standardized placement tests to determine whether students are required to enroll in prerequisite developmental education. Research has found that placement tests are not an accurate measure of student readiness for college-level math and English courses. As a result, many students who have a high probability of being successful in college-level courses are placed into developmental education. The combination ineffective developmental education and inaccurate placement has denied many students access to college-level math and English courses. Finally, students of color are more likely to be negatively impacted by ineffective placement and prerequisite developmental education causing equity gaps in postsecondary education.[1]

Several course placement practices and developmental education reforms have dramatically improved outcomes for students placed into developmental education. Effective practices include:

- **Implementing the use of multiple placement measures** to include high school grade point average (HSGPA) to assess readiness for college-level math and English courses,
- **Eliminating prerequisite developmental education** and providing **corequisite support** to students while they are enrolled in college-level courses, and
- **Instituting math pathways** where students are gaining the math skills that are necessary for their chosen program of study.

States and postsecondary systems that have scaled these reforms to all students have seen improvements in student progress toward a postsecondary credential.

The Minnesota State Course Placement Practices Review

The Minnesota State Course Placement Practices Review examines whether course placement practices throughout the Minnesota State institutions: result in burdensome costs to students and their families, limit access to postsecondary education, lower student persistence rates, and reduce credential completion rates. The review also studied the impact of placement and developmental education on employment and wages and the extent that enrollment in developmental education affected the achievement of equitable outcomes for Black, Latino, Indigenous, Asian, adult students, as well as students from low-income backgrounds.

A mixed method approach involved a review of research on course placement and developmental education, an assessment of course placement and developmental education practices at

Minnesota State institutions, and focus groups and surveys of faculty, advisors, staff and students. The review also includes an analysis of disaggregated quantitative data on student placement, enrollment in developmental education, and student outcomes.

Project Findings

Did policies, practices, and assessments exclude students from admission thereby hindering their full participation in higher education?

Placement and prerequisite developmental education did not impact admission to college, but lack of supports for English learners, refugees, and immigrants made applying to college more complicated. We found little evidence that students were denied admission into postsecondary education due to placement policies and practices. However, we did find examples of practices that would complicate student application and admissions into postsecondary education. We did find practices being implemented by individual institutions that promoted enrollment in postsecondary education, particularly for students of color and low-income students that could impact admission to college for some student groups. We also found examples of promising practices. Those findings are as follows:

- Refugee and immigrant students who did not graduate from a U.S. high school face a more complicated process for getting admitted to Minnesota State system institutions.
- Institutions are implementing promising strategies for increasing the number of applicants and enrollments among students of color and low-income students.
- ABE participants are an important population for increasing postsecondary enrollments.

Did policies, practices, and assessments hinder the participation of students?

Shifts to using HSGPA for placement increased access to college-level classes, but did not increase participation in those classes.

The Minnesota State System guidance to institutions to use HSGPA for placement increased access to college-level courses. The guidance outlined a set of specific HSGPAs that would exempt students from placement into developmental education courses. The HSGPA set by Minnesota State System resulted in many more students being placed directly in college-level math and English courses. Despite increased access to college-level math courses, new entering students are not participating in and completing college-level math courses in their first year. A primary reason for low enrollment rates in college-level math courses could be because math is not a required course for general education.

Other findings include:

- Many students who were placed into developmental education did not participate in developmental education courses in their first year.
- Inconsistent advising for new entering students across the Minnesota State system complicates student placement and participation.
- Students value effective instruction and support they received in developmental education courses, but did not feel they needed the prerequisite developmental education course.

Students who enrolled in developmental education did have decreased participation in higher education. The change to HSGPA did not eliminate equity gaps in developmental education participation. While the shift to HSGPA increased access to college-level courses for

all students, we still found that students of color, students from low-income backgrounds, and students from urban communities were still more likely to enroll into developmental education courses. Given that prerequisite developmental education reduces the likelihood that students will complete college-level math and English courses, the equity gap in enrollment in developmental education translates into an equity gap in the percent of students who complete college-level math and English in their first year. Findings that may have contributed to this finding include:

- Students who did not enroll in a rigorous or CTE focused high school curriculum were more likely to participate in developmental education, contributing to equity gaps.
- Students who participated in English proficiency instruction or special education in high school, adult students, and part-time postsecondary students were more likely to enroll into developmental education.
- Referral and placement of admitted students to ABE is inconsistent and may impede college participation.

Did policies, practices, and assessments hinder the placement, retention, or timely college graduation of students?

Placement of students into prerequisite developmental education hindered student retention, timely completion of a credential, and achievement of bachelor's degrees.

Students who were placed and enrolled in prerequisite developmental education are less likely to complete college-level math and English in their first year, persist to a second year, and graduate with a credential within 6 years of entry. This finding is consistent with research finding that placement in developmental education negatively impacts credential completion. This finding illustrates that within the Minnesota State system, enrollment in prerequisite developmental education negatively impacts success in postsecondary education. Related findings include:

- Prerequisite developmental education expands equity gaps.
- Students enrolled in developmental education are far less likely to earn bachelor's degrees in six years than students not enrolled in developmental education.

Did policies, practices, and assessments have adverse consequences to students and their family, including burdensome economic and related costs of delaying their degree plans?

Placement and enrollment into developmental education presented economic burdens in terms of lower likelihood of reaping the dividends from timely completion of a postsecondary credential. Reasons that enrollment in developmental education impacts the economic vitality of students and families include:

- Students enrolled in developmental education worked fewer hours than students who did not enroll in developmental education 6 years after initial enrollment in postsecondary education.
- Hourly wages for students enrolled in developmental education are lower than students who did not enroll in developmental education.
- While students enrolled in developmental education who completed a credential did benefit, low 6-year graduation rates overall increase burdens on students.

Policies and Practices that Hinder or Support Effectiveness of Developmental Education

Inconsistency in the design and implementation of placement practices increases potential for inequitable outcomes. Design and implementation practices that are problematic include:

- Most institutions are using HSGPA for course placement but there are some institutional practices that are not aligned with evidence-based practice.
- Placement practices are often complicated and not transparent.
- Placement of students into developmental education sequences are inconsistent across institutions.
- Institutions are using guided self-placement in various ways, despite a lack of evidence on effective approaches to implementation.
- Few institutions engage in evaluation and continuous improvement of developmental education practices.

Lack of consistency in placement policies and practices for English proficiency may cause inequities across the Minnesota State system. Because there is not readily available data about placement and outcomes for students who are enrolled in ESOL, we were not able to determine the impact of practices on student outcomes. However, we did find reasons to believe that current institutional practices could be detrimental. Findings include:

- Processes for the identification of students for assessment of English language proficiency and placement criteria are inconsistent and not transparent at many institutions.
- English learners and ESOL faculty often feel stigmatized at their institutions.
- Minnesota State institutions don't receive student results from the ACCESS assessment.
- Some institutions are implementing innovative practices for serving English learners.

Current Minnesota State reforms and expected policy changes will address many, but not all problems with placement of students into developmental education. The Minnesota State system is making great strides to address the systemic flaws of using standardized tests to place students in prerequisite developmental education. We anticipate that these changes will result in improved outcomes for students who would have traditionally been placed into prerequisite developmental education in years past. However, we believe the new policies and plans for reform have challenges that might negatively impact the overall outcomes of the effort. Reasons

The Minnesota State System developmental education reform plan does not fully address the failures of prerequisite developmental education by not fully implementing evidence-based reforms. While the planned reforms are an improvement over past practice, we don't believe these reforms will go far enough to ensure student access and success in postsecondary education. Several planned practices are not supported by research and are contrary to evidence-based practices that have been effectively implemented and scaled in other states. Challenges include:

- Minnesota State's plan to maintain prerequisite developmental basic algebra for students on the math pathway that leads to STEM degrees could result in many students who desire a STEM degree not following that path.
- Minnesota State's recommendation to refer admitted students to ABE is inconsistent with current research that prerequisite developmental education is ineffective.

- Many faculty and advisors are not convinced that current HSGPA placement standards and guided self-placement are effective placement measures.
- Faculty and staff seek resources to implement developmental reforms.
- Minnesota State system institutions' lack of timely access to HSGPA and other high school performance data complicates implementation of placement reform.

Recommendations

While Minnesota State has made good progress toward improved placement practices and policies, we believe the following high-level recommendations will strengthen current reforms within the system. Each of the nine recommendations have more detailed actions that should be taken that can be found in the Recommendations section of the report.

1. The Minnesota State System should codify current system guidance on use of HSGPA for placement by establishing system wide policy to scale the use of high school grade point average as the primary measure for placement of students into college-level courses.
2. The Minnesota State System should fully eliminate prerequisite developmental education and fully scale corequisite support for admitted students who are assessed as needing academic support in college-level math and English.
3. The Minnesota State System should pursue reforms that will accelerate the progress of English learners through ESOL, developmental education, and college-level math and English courses.
4. The Minnesota State Legislature and the Minnesota State System should allocate financial resources to fully implement reforms to course placement, developmental education, and services for English learners.
5. The Minnesota State Legislature, in collaboration with Minnesota State, should mandate ongoing state reporting of student outcomes for students impacted by Minnesota State system placement, developmental, and ESOL reforms.
6. Minnesota State system and the Minnesota Department of Education should conduct a study of postsecondary enrollment, persistence, and credential completion of students who participate in ABE and subsequently enroll in postsecondary education.
7. The Office of Higher Education and the Minnesota State System should implement strategies to increase student enrollment in postsecondary education among demographic groups essential to achieving Minnesota's postsecondary attainment goal.
8. The Minnesota State system should take steps to understand and address the concerns of faculty and staff as the system designs, implements, evaluates placement, developmental education and ESOL reforms.
9. The Minnesota State system should include students and community representatives from traditionally underserved populations in the design, implementation, and evaluation of developmental education reforms.

Final Report
Minnesota State Course Placement Practices Review

Pursuant to Minnesota Laws 2023 Chapter 41 Article 2 and Section 34, Bruce Vandal Consulting (BVC), in partnership with WestEd, National Center for Higher Education Management Systems, and Postsecondary Policy Partners submits to the Commissioner for the Minnesota Office of Higher Education the following report that documents, reviews, and analyzes course placement practices, policies, and assessments used by the Minnesota State Colleges and Universities system. Per the charge of the legislation, the report documents policies and practices that:

- Resulted in adverse consequences for a student and their family, including burdensome economic and related costs of delaying their degree plans,
- Hindered the participation of students,
- Hindered the placement, retention, or timely college graduation of students,
- Excluded students from admission thereby hindering their full participation in higher education.

The report considers impacts for various student communities, including but not limited to Indigenous students, students who speak English as a second language (ESL), and students of color. The report assesses whether prospective and enrolled postsecondary students were:

- Denied admission,
- Disproportionately assigned to developmental education, and
- Delayed or deterred in their educational progress.

The report also examines the extent that policies, practices and instruments:

- Are disproportionately reliant on test scores,
- Impose barriers for students in terms of enrollment, retention, and completion, and
- May be culturally biased.

In addition, the report highlights promising and innovative practices at Minnesota State System institutions.

The report offers recommendations based on the information obtained from existing measures, instruments, and placement practices.

To meet the charge, BVC and partners identified the following research questions.

1. What are the admissions, placement and developmental education policies and practices at Minnesota State postsecondary institutions that either impede or facilitate student admission and the success of postsecondary students overall, and for specific student populations?
2. To what extent do postsecondary institution admissions and placement policies and practices impact student outcomes in admissions, developmental education placement and, educational/economic progress of various student populations to include:
    - Black and students of African heritage.
    - Hispanic and Latino students.
    - Asian students, to include those of Hmong, Lao, Cambodian, and Vietnamese heritage.

- Indigenous students.
- English as a Second Language students.
- Students who received free and reduced-price lunch and/or Pell eligibility.
- Students who qualified for special education services.
- Students who did or did not have a rigorous high school curriculum.
- Students who were or were not in CTE programs.
- Students enrolled in urban, suburban, and rural postsecondary institutions.
- Students who have graduated from urban, suburban and rural high schools.

Project Advisory Committee

BVC has sought external advice and expertise through a Project Advisory Committee made up of Minnesota State System faculty and system leaders, representatives from community-based organizations invested in achieving equitable outcomes for students, and staff of the Minnesota Office of Higher Education and the Minnesota Department of Education.

Definitions

The following are definitions of terms frequently used in the report. Additional technical definitions from the Statewide Longitudinal Education Data System (SLEDS) can be found in Appendix 3.

Developmental Education - According to the Minnesota State System, developmental education is described as follows:

> *"Developmental education serves as the critical bridge between the academic readiness gap of new students and the skills they need to be successful in college-level gateway courses and academic programs. The colleges and universities of Minnesota State offer developmental education to support the success of students by delivering pre-collegiate courses in reading, writing, and math and by providing a variety of optional and/or mandatory student support services."* [2]

Students assessed as needing additional support are often required to enroll in and complete one or more prerequisite developmental education courses before enrolling in college-level math and English courses.[3]

Placement - The Minnesota State System defines placement as follows:

> *The upper limit of the coursework in a particular discipline a student is qualified to enroll in based on pre-identified measures and cut scores. Additional factors may increase the placement, such as the consideration of additional measures, campus appeals process, etc. Students must be given the opportunity to enroll in the corresponding college-level or developmental-level course based on their placement. Students cannot be required, but have the option, to enroll in a course lower than their placement.*[4]

Placement is the process of assessing students to determine if they are academically prepared for college-level math, reading or writing. The traditional approach to course placement has involved setting performance standards or "cut scores" on standardized tests such as the ACT,

SAT, and ACCUPLACER. Students who achieve scores on standardized tests that are equal to or above the cut score are placed into college-level math and/or writing courses. Students who score below the cut score are placed into a prerequisite developmental education math, writing, and/or reading course. Many institutions will allow students to either retake assessments or will use another method to assess academic readiness for college-level courses.[5]

English for Speakers of Other Languages (ESOL) - Institutions use a variety of terms for the course programs intended to support English learners with their English language acquisition. These terms include English as a Second Language (ESL), English for Academic Purposes (EAP) and English for Speakers of Other Languages (ESOL). To simplify this report, the research team has chosen to use ESOL as the generic term for all such programs.

English Learners - Two terms are used in this report to refer to students who are in the process of English language acquisition. In general, the report uses the term English learners when discussing policies and practices. The term multilingual is also used to describe students who have a native language other than English but who are not formerly identified as English learners through enrollment in ESOL coursework.

Prerequisite – A required course that a student must successfully complete before enrolling in a subsequent course. In this report we use the term prerequisite developmental education for developmental education courses students must complete before being allowed to enroll in college-level courses.

Corequisite - Students are enrolled in a college-level course and required to enroll in a concurrent developmental education course that provides additional support to enable students' successful completion of the college-level course.

College-Level Math - Entry level, college-level math courses that meet requirements for a degree or certificate that require students to meet system-level or institutional level placement requirements to be placed in the course.

College-Level Writing - Entry level, college writing course that designate college-level English skills as a prerequisite.

Throughput - The first-year completion rate in college-level math or writing courses of all new entering students in a given academic year, disaggregated by students who enrolled in prerequisite developmental math, writing, or reading; corequisite math, reading or writing, and those placed directly into college-level math/English. This term includes new entering students who enroll in developmental education and do not register in a college-level math or writing course in their first year.

Course Success Rate – Percentage of students who enroll in a college-level math or writing course that successfully complete the college-level course with a "C" or better. This measure does not include students who did not register for the college-level course.

Institution Type – Institutions differentiated in the analysis based on whether they are a community college or a university within the Minnesota State System.

Subject – Differentiating developmental education and college-level coursework deemed a math, writing, or reading course.

Minnesota's Postsecondary Attainment Goal

In 2015, the Minnesota state legislature adopted the goal that 70% of Minnesota adults (ages 25-44) will have attained a postsecondary certificate or degree by 2025.[6] In addition, the legislation set intermediate benchmarks of 30% and 50% for all races and ethnicities. With strong evidence that postsecondary education attainment results in higher economic and social benefits to Minnesota residents, improving postsecondary attainment is recognized as a critical goal for improving the quality of life for Minnesotans. While Minnesota has made progress toward the attainment goal, the state remains short of the goal with an attainment rate of 63%. Similarly, attainment rates for various race and ethnic communities have improved, but not all groups have achieved the established benchmarks, and all groups maintain attainment gaps well below the 63% estimate.[7]

Based on the Minnesota Office of Higher Education's October 2024 Educating for the Future Report, most individuals who need to earn a postsecondary credential to reach the attainment goal will be from Minnesota's various communities of color. As a result, the report recommends that the state should make efforts to improve preparation for, access to, and completion of postsecondary credentials among Black, Indigenous, Asian, Latino and other students of color.

Research Overview

The Research Primer: Course Placement and Developmental Education Reform that can be found in Appendix 4 of the report is a review of placement and developmental education research, policy, and practice. The primer provides more in-depth information on the structure of placement and developmental education and the research on the most effective policies and practices. This Research Primer was used to design research methods for the project. The primer provides an in-depth explanation of the following issues related to admissions, placement, and developmental education practices and their impact on equitable student success for students. The Research Primer includes citations and endnotes indicating the evidence behind each statement. We encourage all readers to review the Research Primer before reading the full report. The key themes from the primer are described below.

Course Placement and Developmental Education Research

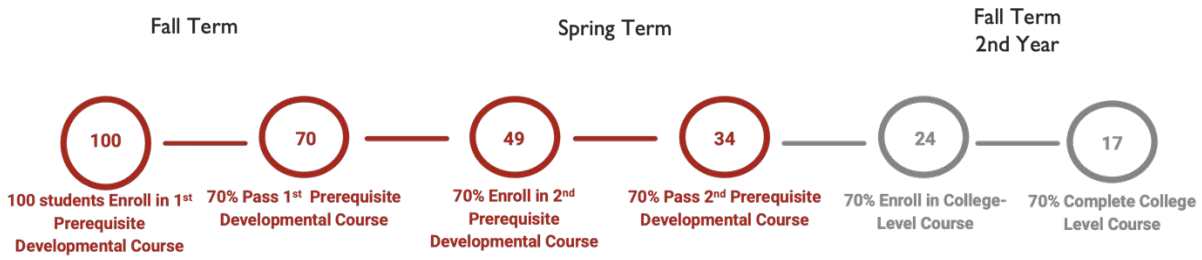
One barrier to postsecondary access and attainment that disproportionately affects students of color has been the assessment and placement of students into prerequisite developmental education course sequences that students must complete before being allowed to enroll in college-level math and English courses.

In many cases, students who are likely to be successful in college-level math and English courses are being placed into prerequisite developmental education courses. Standardized assessments have been shown to be ineffective at assessing whether students are ready to enroll in college-level courses. As a result, these assessments often place students into developmental education courses that they do not need. There is similar evidence that standardized assessments to determine English proficiency are not effective. The over placing of students into developmental education has real implications for postsecondary credential attainment.

Most students who are placed into prerequisite developmental education courses never enroll in and complete college-level math or writing courses in their first academic year. The primary

reason students placed into prerequisite developmental education courses are not enrolling in and completing college-level math or writing courses is that students fail to complete the full sequence of developmental education courses they are placed into, stopping short of enrolling in the college-level course. Figure 1 simulates how students placed into two levels of prerequisite developmental education are highly unlikely to complete college-level math or English in their first year. There is ample evidence that many students placed into developmental education courses would be better served by enrolling directly into college courses, without prerequisite developmental education.

Figure 1: Developmental Education Student Throughput to Completion of College-Level Math or English



Students of color and students from low-income backgrounds are more likely to place into prerequisite developmental education and less likely to complete college level courses after being placed into developmental education. Consequently, placement and prerequisite developmental education contribute to equity gaps among college students.

In the past decade several states, systems and institutions have implemented and scaled evidence-based developmental education policies and practices that have resulted in significant improvements in academic outcomes for students. In response to research revealing the limitations of traditional prerequisite developmental education course sequences and placement practices that rely on standardized assessments, state, system, institutional, and faculty leaders have developed innovative approaches to assess student readiness for college-level courses and to deliver academic support. These new approaches have demonstrated strong scaled results from the institution to the state level. Some of the key strategies that are being implemented at scale in states are:

- Reducing the reliance on standardized tests for placement and **implementing the use of multiple placement measures** to include high school grade point average (HSGPA) and high school performance in math and English courses to assess readiness for college-level math and English courses,
- Eliminating prerequisite developmental education and providing corequisite support to students while they are enrolled in college-level courses.
- **Instituting math pathways** where students are gaining the math skills that are necessary for their chosen program of study have resulted in more students completing college-level math courses required for their program of study within their first academic year. Further, research has shown that students who complete college-level math and English in their first academic year are more likely to persist and earn a postsecondary credential.

English for Speakers of Other Languages

English learners often face barriers to accessing postsecondary education. Students who are identified for assessment of English proficiency are often required to enroll in ESOL courses and need to demonstrate English proficiency before they can enroll in developmental education and college-level courses. ESOL courses are offered at some, but not all, colleges. Colleges and universities that don't offer ESOL courses may refer students to Adult Basic Education (ABE) to gain English proficiency. Like developmental education, there is research suggesting that a sequence of ESOL courses followed by developmental education courses before students can enroll in college-level English does negatively impact student success in those courses. Attrition from the sequence can result in a high percentage of students not completing the college-level English course.

Like developmental education, colleges and universities often rely on standardized tests to assess students' English proficiency. Again, standardized tests are not considered an effective way to place students into ESOL courses.

While developmental education reforms like corequisite support can shorten English learners' path to college-level courses, there are no proven approaches to accelerate their path through ESOL. There are some evidence-based solutions that can meet the needs of many, but not all students. Many ABE students including English learners have had success completing math and English requirements while enrolled in career certificate or applied associate degree programs by receiving math and English support while enrolled in career certificate courses. Others have found that shortening the ESOL sequence can accelerate student progress. Finally, some states have awarded postsecondary degree credit to students who demonstrate English proficiency, much like students who take college courses in foreign languages. None of these approaches have definitive evidence behind them and institutions that are considering these approaches should design them carefully to ensure student progress into postsecondary education is positively impacted.

Minnesota State System Placement Policy Background

The Developmental Education Strategic Roadmap

In 2017, the Minnesota State Legislature passed legislation requiring the Minnesota State Board of Trustees to develop a plan to reform developmental education at system campuses to reduce the number of students placed into developmental education.[8] The legislature required that the plan:

- Develop a systemwide approach for using multiple measures to place students into developmental education courses.
- Set uniform cut scores on placement assessments that result in a reduction in the percentage of students placed into developmental education,
- Implement other policy changes intended to reduce the number of students placed into developmental education.
- Institute accelerated pathways in math, reading, and writing to ensure students can complete developmental education courses within one year and enable students to complete college-level gateway courses in a year, when possible.

- Study the cost structure of developmental education to identify financial incentives for students and other strategies to lower the cost of developmental offerings for students.
- Identify best practices and targeted support strategies that can be implemented at all system campuses.

The Minnesota State division of Academic and Student Affairs submitted the plan in February 2018.[9] The report communicated to the legislature that Minnesota State had just published a Developmental Education Strategic Roadmap. The roadmap formalized developmental education reform efforts by, "reviewing and promoting national, systemwide, and campus efforts" into a strategic plan for developing and implementing reforms over the subsequent four years.[10] The Strategic Roadmap includes the following goals.

1. Improve student completion of developmental education and entry into college-level courses by redesigning developmental education curricula to include an acceleration option.
2. Improve the accuracy of course placement by implementing a multiple measures placement program at all colleges and universities.
3. Improve student success in developmental education by developing a comprehensive student support system for students in developmental education programs.
4. Increase college readiness of high school graduates attending Minnesota State System campuses by partnering with secondary partners.
5. Increase college affordability for students by implementing student-cost-saving approaches.
6. Improve student success in developmental education by expanding and strengthening professional development opportunities for faculty members, staff members, and administrators.
7. Improve student success in developmental education by strengthening evaluation and continuous improvement efforts.

Recent Reform Efforts

As recently as January 2024 the Minnesota State System reported to the legislature that the Developmental Education Strategic Roadmap continues to guide systemwide and institutional developmental education reform efforts. The January 2024 report explains that all Minnesota State System institutions have local action plans in place and are nearing completion of implementing the goals outlined in the Developmental Education Strategic Roadmap.[11]

Most Minnesota State System postsecondary institutions have implemented reforms to reading, English and math instruction to accelerate student progress through developmental education and improve student outcomes. Many of the reforms implemented by institutions are focused on reducing long prerequisite developmental education course sequences that delay student entry into college-level math and English courses.

In addition, there have been several working groups coordinated by the Minnesota State System office intended to advance systemwide reform efforts. Working groups for placement, corequisite support in college-level math, reading, and English, and supporting English Language Learners have been meeting to consider systemwide policy and practice intended to improve outcomes for students placed into developmental education.

Systemwide efforts have included a multiple measure placement pilot intended to reduce reliance on the ACCUPLACER exam by introducing additional assessment measures such as high school grade point average and high school course completion, to determine placement into developmental education. Beginning in Spring 2024, a Developmental Education Steering Committee was convened to support the implementation of corequisite support for students who require additional academic support in math, writing, and reading. The committee will develop guidelines and parameters for implementing corequisite support. Corequisites will be fully scaled at all Minnesota State System institutions by Fall 2027 for students who are assessed one-level below college-ready in college-level math courses and English. Students assessed below this level can still be referred to some level of prerequisite developmental education.

Project Team

The BVC team has years of experience working at the state, system and institutional level on the assessment and improvement of developmental education reform outcomes. Further BVC has conducted several evaluations of the adoption and scale of developmental education reforms across the nation. The project team recognizes that our experiences as postsecondary researchers of various educational, cultural, racial and economic backgrounds do influence our research analysis, conclusions, and recommendations. To be fully transparent about our backgrounds, we have drafted a positionality statement that can be found in Appendix 1.

Research Methods

This report uses a mixed method approach to examining the research questions. To fulfill the requirements of the project request for proposal, the project team organized the project by the following three tasks:

Task 1: Review of Institutional Admissions, Placement, and Developmental Education Practices

The research methods for Task 1 include review of state and system policies, and institutional practices through a review of state, system and institutional websites. Information gathered from these resources was confirmed by representatives from Minnesota State System and institutions, Minnesota Office of Higher Education, Minnesota Department of Education, and the Project Advisory Committee.

Task 2: Conduct Qualitative Analysis of Student, Staff and Faculty Perceptions

To better understand the experiences and perceptions of those who are directly involved or impacted by admissions, placement and developmental education policies and practices, the project team used a combination of focus groups, interviews and surveys. Sound analytic methods were used to summarize the findings from these methods.

Task 3: Perform Quantitative Analysis Using Data Provided by the Minnesota Office of Higher Education to Examine Student Outcomes

The examination of quantitative data from the Minnesota Statewide Longitudinal Education Data System (SLEDS) and the Minnesota State System. The analysis is a combination of descriptive data and statistical testing to determine the significance of findings revealed through the review of quantitative data.

For a more complete description of the project's methodology, please review Appendix 2. The appendix will describe the methods for all three tasks and will also include a discussion of the limitations to the study.

Data, Findings and Analysis

Postsecondary Admissions and Enrollment

Current State and System Policy

The Minnesota State System has minimum standards for admission across their colleges and universities. Minnesota State System colleges are open admission institutions for anyone with a high school diploma, adult diploma, or high school equivalency. Anyone without a high school equivalency can apply to eligible career pathways programs after meeting the federally mandated Ability to Benefit Test and qualifying scores on the ACCUPLACER Reading Comprehension, Writing, and Arithmetic assessments. Colleges can make exceptions to these requirements for students aged 17 or older that have been formally released from high school.[12]

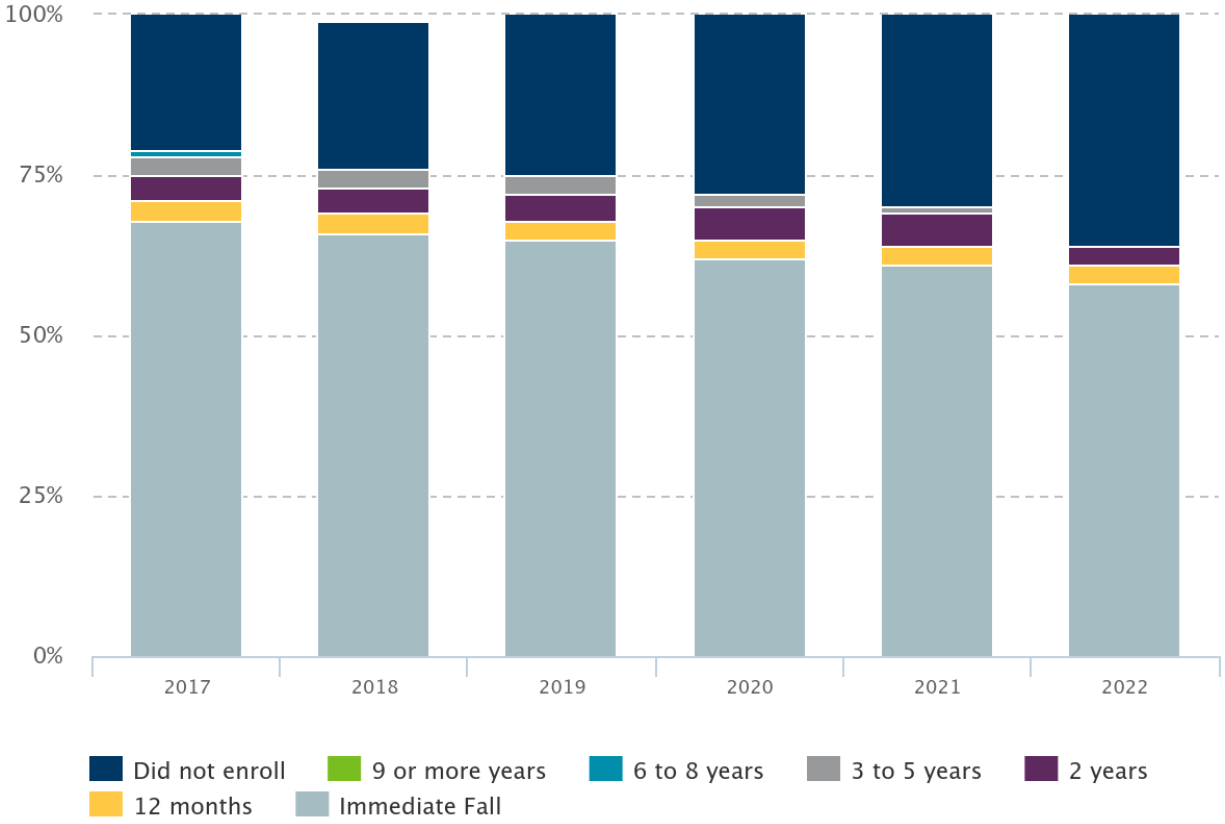
The Minnesota State System has more rigorous admissions standards for applicants to universities. Beyond the completion of secondary education or high school equivalency, applicants must demonstrate readiness by meeting defined standards through one of the following measures: high school grade point average (HSGPA), high school class rank, or scores on one of the following standardized exams ACT, SAT, GED, HiSET, Minnesota Comprehensive Assessment (MCA) or Test for Adult Basic Education (TABE). If the student completed high school, they must also demonstrate the completion of academic core classes, aligned with Minnesota state high school graduation standards.[13]

Admissions and Enrollment at Minnesota State Institutions

The Minnesota State System has experienced an overall enrollment decline since Fall 2012. Enrollment among new entering students without any previous college (the population in this study) declined by 8,853–or 31%--from Fall 2012 to Fall 2022. This is consistent with broader trends; overall enrollment at public institutions in Minnesota–and nationwide–also declined during this time. The nationwide decline has been particularly pronounced at community colleges, but the declines within the Minnesota State System have been similar, percentagewise, at its colleges and universities. Enrollment declines have not been distributed evenly by race/ethnicity. New/entering White and American Indian/Alaska Native student enrollments have declined by over 40%; Black/African American student enrollment has declined by only 3%, and Hispanic/Latino enrollment has increased by 13%. Overall, the student population is becoming less White and more racially/ethnically diverse.

These declines in postsecondary enrollment are happening even though the number of public high school graduates increased by about 4,500 students in the five years from 2017 to 2022. The immediate college-going rate of public high school graduates dropped by 10 percentage points during this timeframe, from 68% in 2017 to 58% in 2022 (Figure 2).

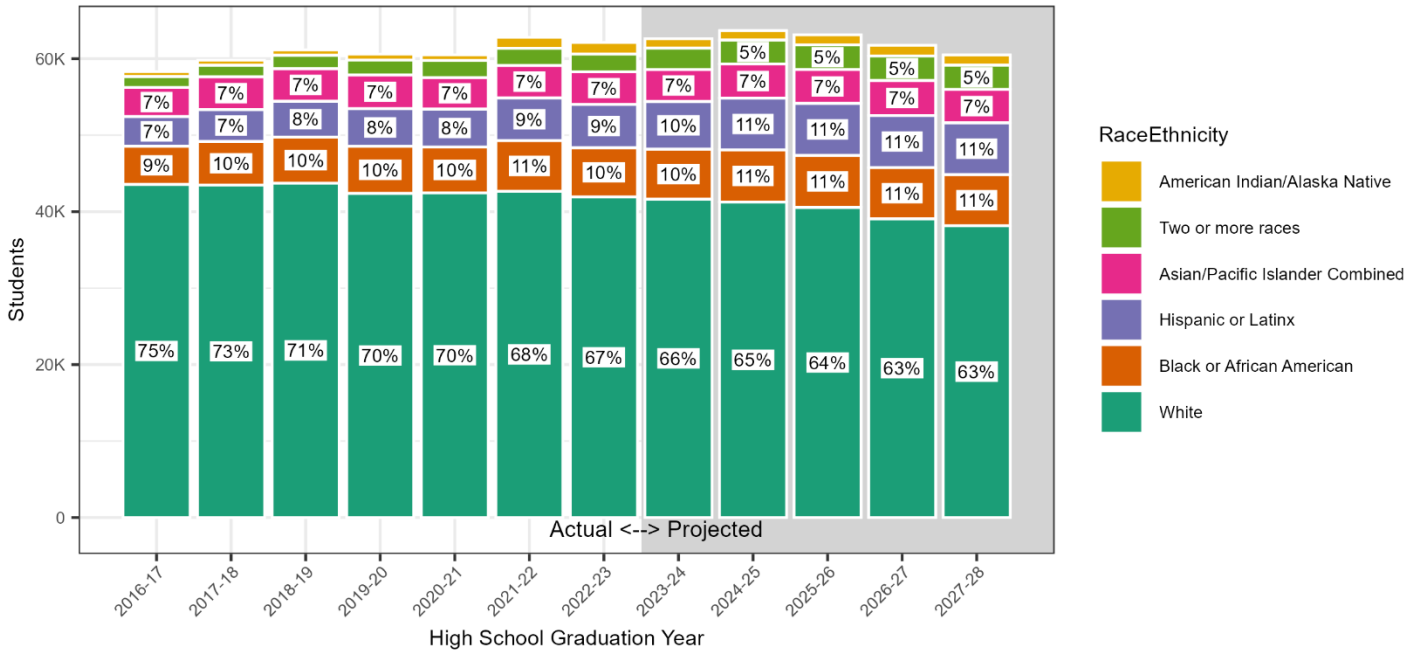
Figure 2: Enrollment of Minnesota Public High School Graduates in Postsecondary Education by Year They Graduated from High School, 2017-2022



Source: MN SLEDS (https://sleds.mn.gov/#collegeActivity)

The population of public high school graduates–like their Minnesota State System counterparts–has become increasingly diverse in terms of race/ethnicity (Figure 3); while the overall number of high school graduates has increased, the number who identify as White has decreased by about 1,600 students from 2017 to 2023. The number and share of Minnesota public high school graduates who identify as White is projected to decrease further in future years.

Figure 3: Actual and Projected Minnesota Public High School Graduates by Race/Ethnicity, 2017-2028



Source: Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2024. https://www.wiche.edu/knocking. Note: Includes only MN public high school graduates. Years after 22-23 are projections.

The Minnesota State System has seen a 2.4% increase in enrollment in Fall 2024 compared to Fall 2023 and the system projects that enrollments will continue to increase through 2027.[14] However, projections on the number of high school graduates from Minnesota high schools predict an 11% decline in Minnesota high school graduates between 2023 and 2041. The decline is almost entirely due to a projected 27% decline in White high school graduates during the same period. Meanwhile, the number of students of color graduating from Minnesota high schools will increase. By 2041, 49% of all Minnesota high school graduates will be students of color.[15]

Another important population of prospective postsecondary students are those who participate in ABE. In 2022, 7% of students who had ended their participation in ABE were enrolled in postsecondary education two years later.[16] 14% of students who participated in ABE had been previously enrolled in postsecondary education and 45% of students who entered ABE were considered high school graduates. Lastly, 80% of ABE students are students of color.[17]

Minnesota State System Admission and Enrollment Efforts

The Minnesota State System completed a five-year review of The Minnesota State Board of Trustees policy 3.4 and 3.41 Undergraduate Admissions and Procedure during the 2023-24 academic year. As a result of the review, the Minnesota State System made several reforms to the policy. Some noteworthy changes include:

- Clarified Ability to Benefit programs for students who do not have a high school equivalency. The goal of these changes is to create a more specific, approved program for students who enroll in these programs.

- Eliminated Preparation Standards that are not included in Minnesota State High School Graduation Standards. For example, foreign language is no longer included in the Preparation Standards.
- Expanded Academic Performance Requirements to align with course placement standards.
- TOEFL scores have been adjusted to align with commonly accepted scores for International Student Admissions.

Admissions and Enrollment Policy and Practice at Minnesota State Institutions

The institutional review revealed efforts by Minnesota State System universities to increase enrollment. Most universities use automatic admissions standards to communicate to students whether they are admissible to Minnesota State System institutions if their HSGPA and/or class rank are equal to or above the established standard, Six of seven Minnesota State System Universities have automatic admissions policies based on HSGPA. Students below the HSGPA standard for automatic admissions may still be admitted to Minnesota State System universities based on other factors established by the university that are considered through their admissions process.

State legislation articulates that ABE providers are designated to assist students in their pursuit of further education to include high school equivalency. Our review of institutional practices found that most community colleges have ABE services located on campus, providing an opportunity to transition ABE participants to postsecondary education on those campuses. However, only 13 (39.4%) of Minnesota State System institutions indicated some sort of partnership or co-location with ABE providers. Consequently, there appear to be some cases where ABE programs are not working closely with Minnesota State institutions. Services provided by ABE that were communicated on institutional websites include:

- preparation for admission to college,
- preparation for college-level math and English coursework, and
- developmental coursework for students with very low placement scores.

Student, Faculty, Staff Perceptions of Admissions and Enrollment Practices

Faculty and staff reported examples of formal and informal structures, and partnerships supporting student transitions from ABE programs to college. Several colleges reported participating in the Minnesota State System Ability to Benefit Pilot which allows students without a high school diploma or high school proficiency to be admitted into approved Career and Technical Education (CTE) programs. Other examples shared by faculty/staff include Minneapolis College's efforts to provide students in the Ability to Benefit program with in-person orientation, academic tutoring, career and academic advising and a dedicated advisor who supports the student throughout their program. Normandale Community College is developing an ABE pathway program with ABE centers in their area that will be rolled out in Spring 2025. .

Adequate staffing was identified as a challenge to supporting students. Staff report high turnover and budget shortfalls leading to staffing shortages that hinder their ability to recruit from diverse populations, support students through the admissions process, and implement innovative practices in testing and advising. At institutions where there are both faculty and staff advisors, respondents expressed challenges with supporting students year-round, particularly during the summer months. Understaffing was identified as a particular concern across institutions although

the causes varied including staffing cuts, increased number of applications, increased enrollments, and increased demands to provide proctored testing to prevent cheating. One survey respondent summarized the demands on admissions staff.

> *"Increased applications received - Increased new students accepted - Increased new students registered. I think a lot of this comes down to relationship building, meeting our students where they are at, and identifying clear requirements."*

Staff report that institutions engage in continuous improvement in various ways and at various frequencies as shown in Table 1.

Table 1: Frequency That Admissions Policies and Practices Are Reviewed and Revised at Minnesota State System Institutions

Frequency	Percentage of Institutions
Annually	25.0%
Every 2-3 years	37.5%
Every 4-5 years	12.5%
There is no set schedule	25.0%
Number of responding institutions	16

Faculty and staff reported using demographic data at each stage of the enrollment process, analyzing trends in prospective students, applicants and enrollments, consulting experts in understanding phenomena that impact specific students, reviewing job market information, future predicted demographics, time spent in the stages of admissions and yield/matriculation rates. Some respondents mentioned reviewing data dashboards on a regular basis and using Customer Relations Management (CRM) tools including Salesforce and Slate. Several survey respondents noted that their institutions are focusing more on recruiting and supporting adult learners based on demographic data.

Student feedback is mostly collected through surveys and informally as part of interactions during the admissions and advising process. Staff from South Central College and Bemidji State University also reported holding student focus groups.

Advising, Course Placement, and Developmental Education Enrollment

Current Minnesota State System Policy

According to Minnesota State Statute 136F.302, students who achieve college ready scores in a subject area on the ACT, SAT, or the Minnesota Comprehensive Assessment (MCA) cannot be required to enroll in non-credit developmental education in that subject area. The statute also states that students that do not achieve college ready scores in each subject and are required to take an institutionally based assessment must be given ample time to review materials provided by the college or university covering the material to be covered on the test. A sample test must be one of the materials provided by the postsecondary institution.[18]

Minnesota State System Board policy outlines that if student scores on the ACT, SAT, system-endorsed ACCUPLACER, and MCA are available, then those scores shall be used for course placement in math, English, and reading. Students are not required to take the ACT, SAT, or MCA. If students have not taken at least one of the exams, the college or university shall require students to complete the system-approved ACCUPLACER exam. The policy does allow colleges and universities to use additional measures for course placement. The policy does not dictate the additional measures that colleges and universities may use. Colleges and universities can also adopt an appeals process to provide additional opportunities for students to receive a favorable placement.[19]

Minnesota State System Board policy outlines the minimum scores on the ACT, SAT, MCA, and ACCUPLACER that students must achieve to be exempt from developmental education courses. Students who do not achieve the minimum scores may be placed into developmental education. However, there is not a system policy for placing non-exempt students into developmental education courses. Institutions can set their own placement standards into specific developmental education courses.

Minnesota State System Board policy has established an Assessment for Course Placement Committee of reading, writing, math, and ESOL faculty, and academic and student affairs staff, administrators, and students.[20] The committee is charged with reviewing placement instruments and practices and submitting recommendations for changes to system policy to the Senior Vice Chancellor for Academic and Student Affairs.

In 2020, during the COVID 19 pandemic, the Minnesota State System provided guidance to institutions on how to conduct placement assessments. Because of the challenges of administering standardized assessments during the pandemic, the Minnesota State System outlined how high school grade point average (HSGPA) should be used as a placement measure when standardized assessment scores from a student were not available. Institutions continue to utilize the guidance provided but the formal policy has not been revised to reflect the changes in practice.

Minnesota State System Board policy states that students who have been identified as non-native speaker of English must be evaluated for English language proficiency using one or more parts of the ESOL section of the system approved ACCUPLACER exam. Institutions can supplement the ACCUPLACER with institutionally based assessment, such as writing samples.[21]

Minnesota state statute allows ABE providers to provide support to students who seek to further their education for a high school diploma and beyond. In addition, ABE can provide English language instruction for English learners seeking to learn the English language.[22]

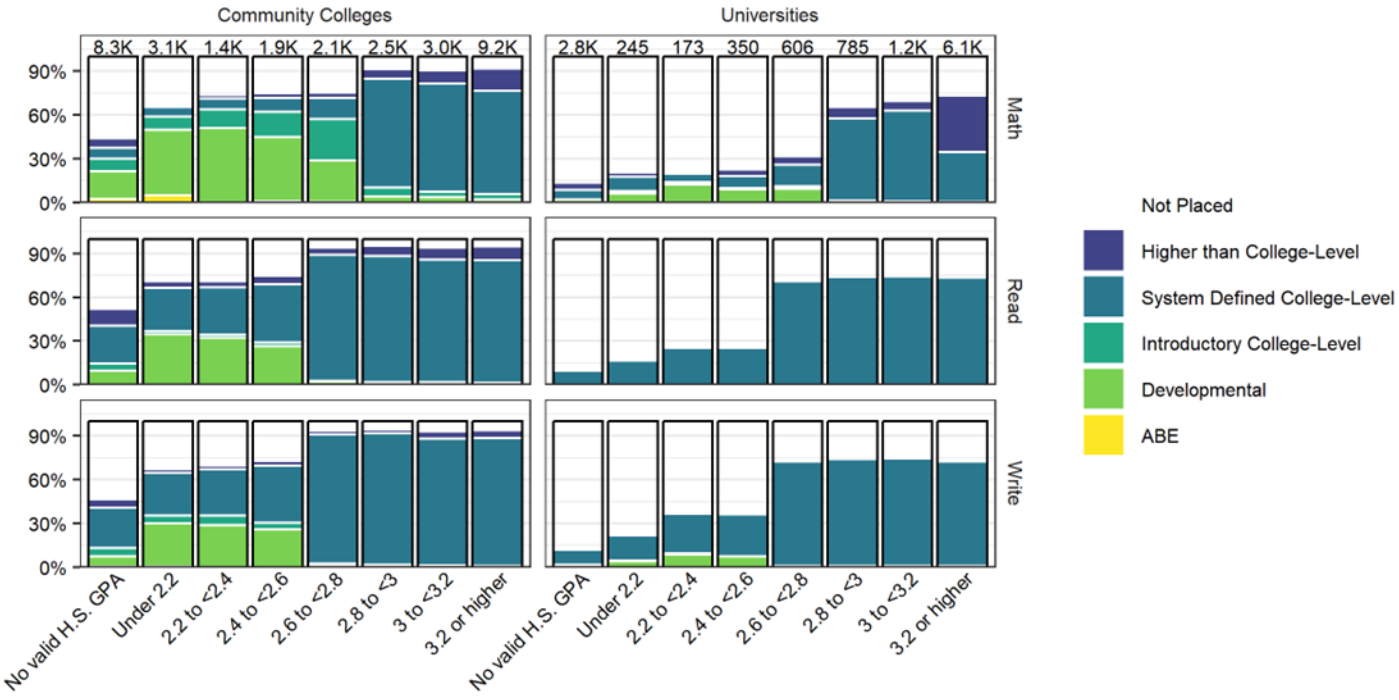
Student Placement and Developmental Education Enrollment Data

Placement

Within the Minnesota State System, community college students are much more likely to be placed into developmental coursework than university students. The guidance provided by Minnesota State that allowed institutions to use of HSGPA for placement into system defined college-level courses resulted in many more students being placed into college-level courses. The guidelines stipulated that students with cumulative HSGPAs of 2.6 to 2.8 should be placed

into college-level writing, and students with a cumulative HSGPA of 2.8 and 3.0 should be placed into college-level in math (Figure 4). As a result, there are distinct differences in placement between students who had the requisite HSGPAs and those students whose HSGPAs were below the college-level standards.

Figure 4: Course Placement Rates for Minnesota State New Entering Students By HSGPA, Institution Type, And Subject, Combined Fall 2022 And Spring 2023 Entering Student Cohorts



Source: MN State System Office. Note: H.S. GPAs are self-reported. Students who reported "0" are included with the "No valid H.S. GPA" group. Based on 2022 Fall and 2023 Spring undergraduate cohorts, which includes both transfer students and those with no college experience.

A significant number of students in the cohorts we studied did not have a placement for math, reading, or writing. Students without placements may include new entering university students that were not required to be placed, incoming transfer students who may have previously completed college-level course requirements and students enrolled in a certificate program that did not require college-level math or writing. Missing placement data is more prevalent among groups with lower HSGPAs. We were not able to ascertain why this was the case. It may be that these students were referred to ABE or to test preparation services to improve their math, reading, and writing skills with the intention of taking a placement test to receive an official placement. We encourage the Minnesota State System to examine this population to better understand why many newly enrolled students did not receive placements in college-level math and English.

It is notable that many students who are placed into developmental coursework do not immediately enroll in developmental education courses in their first academic year, particularly in math. Of the fall 2022 first time-in-college cohort, about 60% of those placed into developmental reading enrolled in a developmental writing or reading course within their first year of enrollment. Only about 35% of those placed into developmental math enrolled in a developmental math

course within their first year. The lower rate of math enrollment is likely related to the fact that a math course is not required to fulfill general education requirements and some Minnesota State System credentials.

As the Minnesota State System only recently began collecting reliable student placement data into math, writing and reading, and given the large number of students who do not have any placement information, we focus the remainder of our analysis primarily on *enrollment* in developmental coursework rather than students' placement levels.

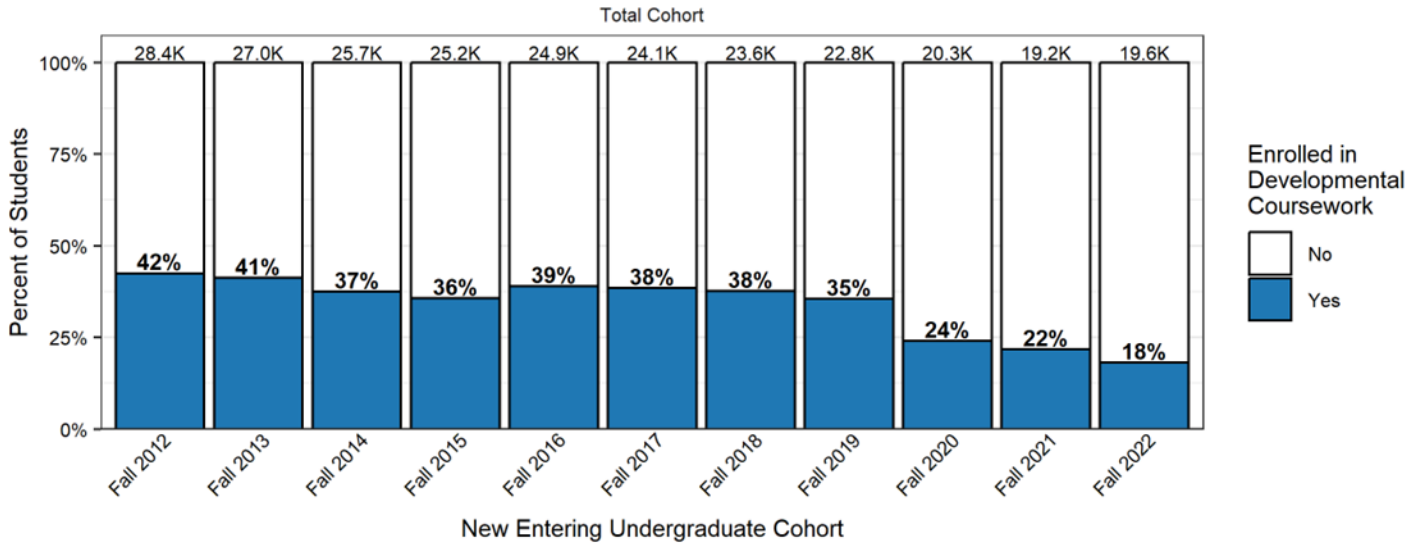
Developmental Education Enrollment

Overall, developmental education enrollment has been declining over time, both in terms of total numbers of students and as a percentage of each entering cohort of new students. This is also true among nearly every sub-population we analyzed, though some types of students are still much more likely to enroll in developmental education than others. The student characteristics most strongly associated with enrollment in developmental education are: students who identify as Asian, Black/African American, Hispanic/Latino, or American Indian/Alaska Native; students who start college at age 25 or older; students who were assessed as needing additional English language instruction in high school, students who attend part-time during their first semester, and students who were eligible for Free/Reduced-Priced meals in high school.

In the fall of 2012, 42% of new, first-time-in-college students enrolled in one or more developmental courses within their first year (before Fall 2013). Ten years later, only 18% of the fall 2022 cohort enrolled in developmental coursework (Figure 5).

There was an especially large drop in developmental enrollment in 2020 that has continued over time. This corresponds with guidance provided by Minnesota State System to use HSGPA for placement during the COVID 19 pandemic and reform efforts taking place within Minnesota State institutions.

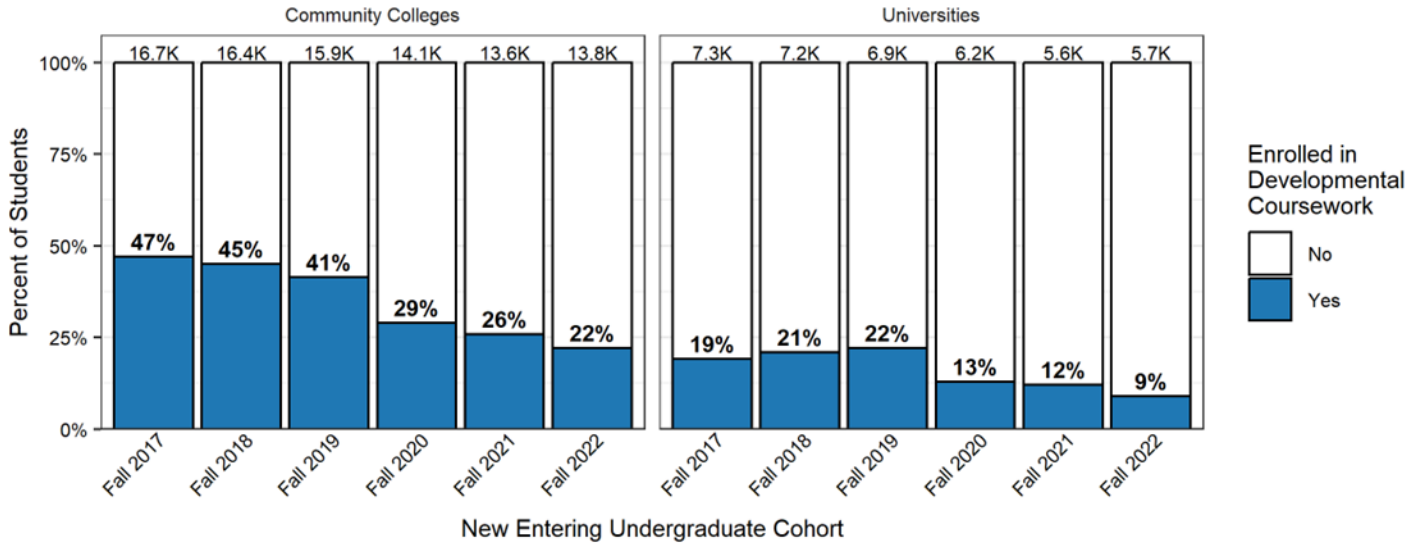
Figure 5: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Cohort



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment.

Though our analysis includes developmental coursework across all institutions in the Minnesota State System, most developmental coursework takes place in the system's community colleges. The community colleges enroll more new, incoming students each fall than the universities overall, and a higher percentage of their students enroll in developmental coursework (Figure 6).

Figure 6: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Cohort and Institution Type

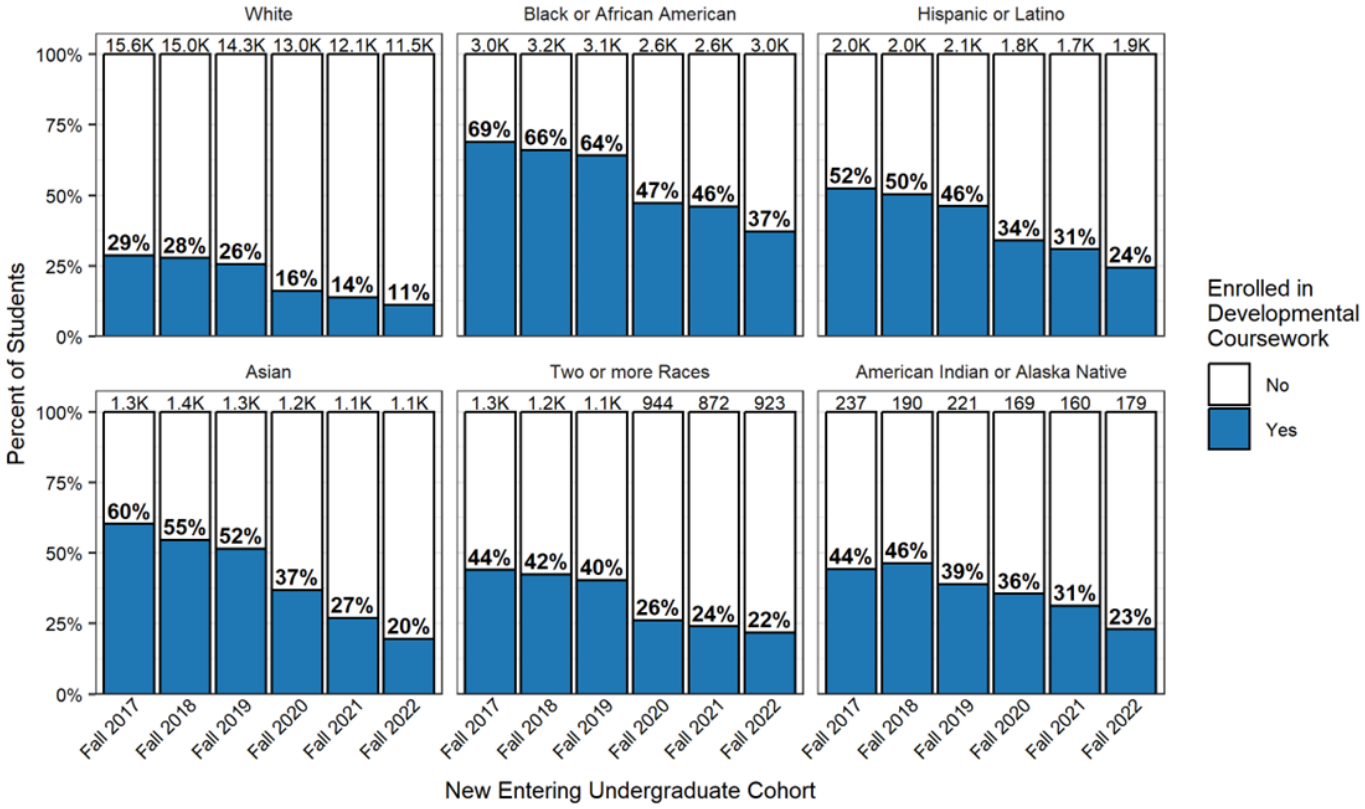


Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment.

Across the system, 11% of new entering students in Fall 2022 enrolled in developmental math and 9% enrolled in developmental writing and/or reading within their first year. Only 3% enrolled in *both* developmental math and writing/reading. As noted in the placement section, these numbers would be higher if all students placed into developmental coursework enrolled in those courses within their first year.

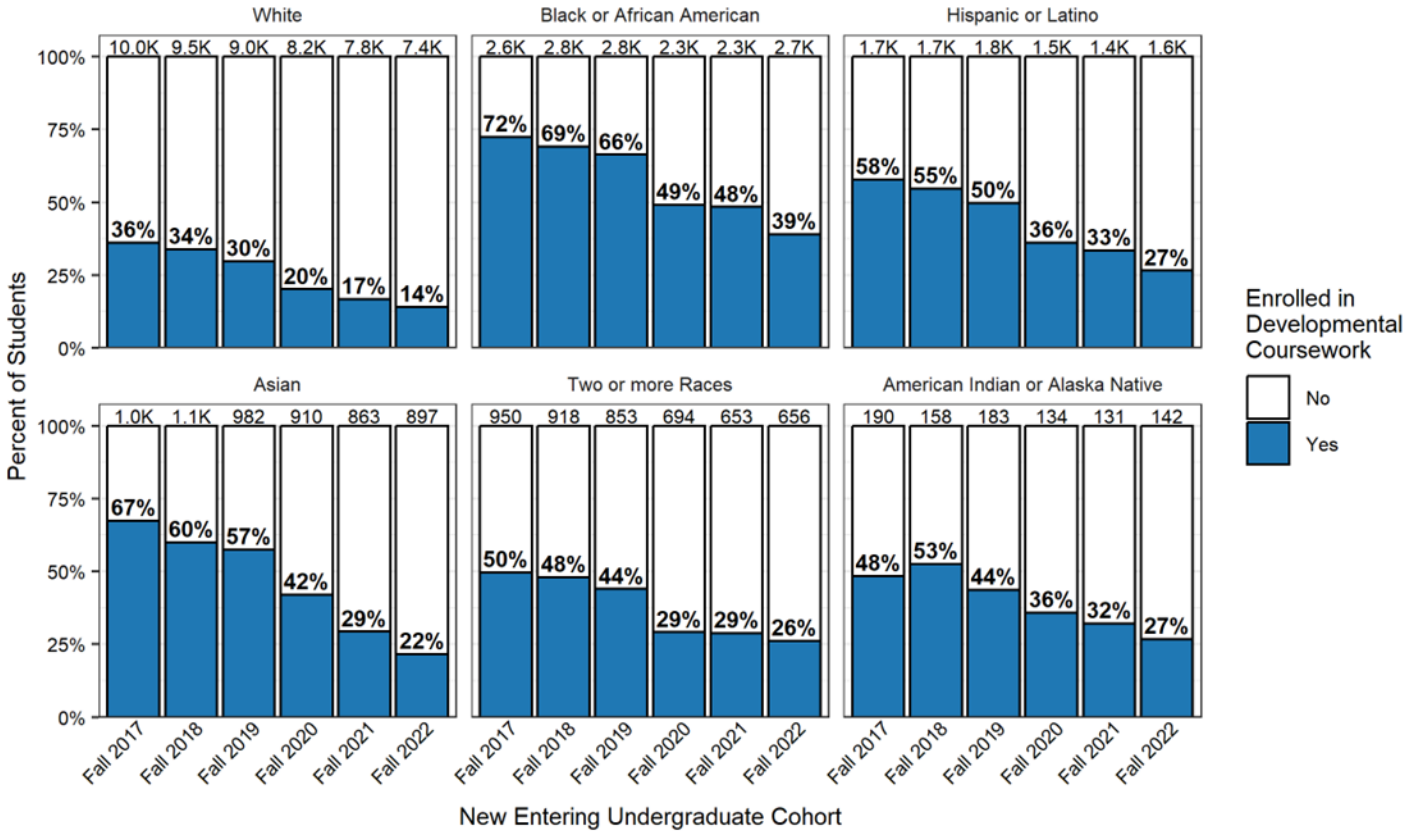
There are significant differences in the racial/ethnic identities of students who do and do not enroll in developmental coursework (Figure 7). White students are the least likely to enroll in developmental coursework; only 11% of the Fall 2022 cohort enrolled in one or more developmental courses within their first year. That number is notably lower than that of all other racial/ethnic groups. At 37%, Black students enrolled in developmental education at the highest rates. Among other factors, this corresponds with community college enrollment; 90% of new entering Black students in the Minnesota State System attend a community college; only 64% of White students do. Rates decreased over time for students of all races/ethnicities, though the decrease has been steepest for Asian students.

Figure 7: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Race/Ethnicity and Cohort, All Institutions



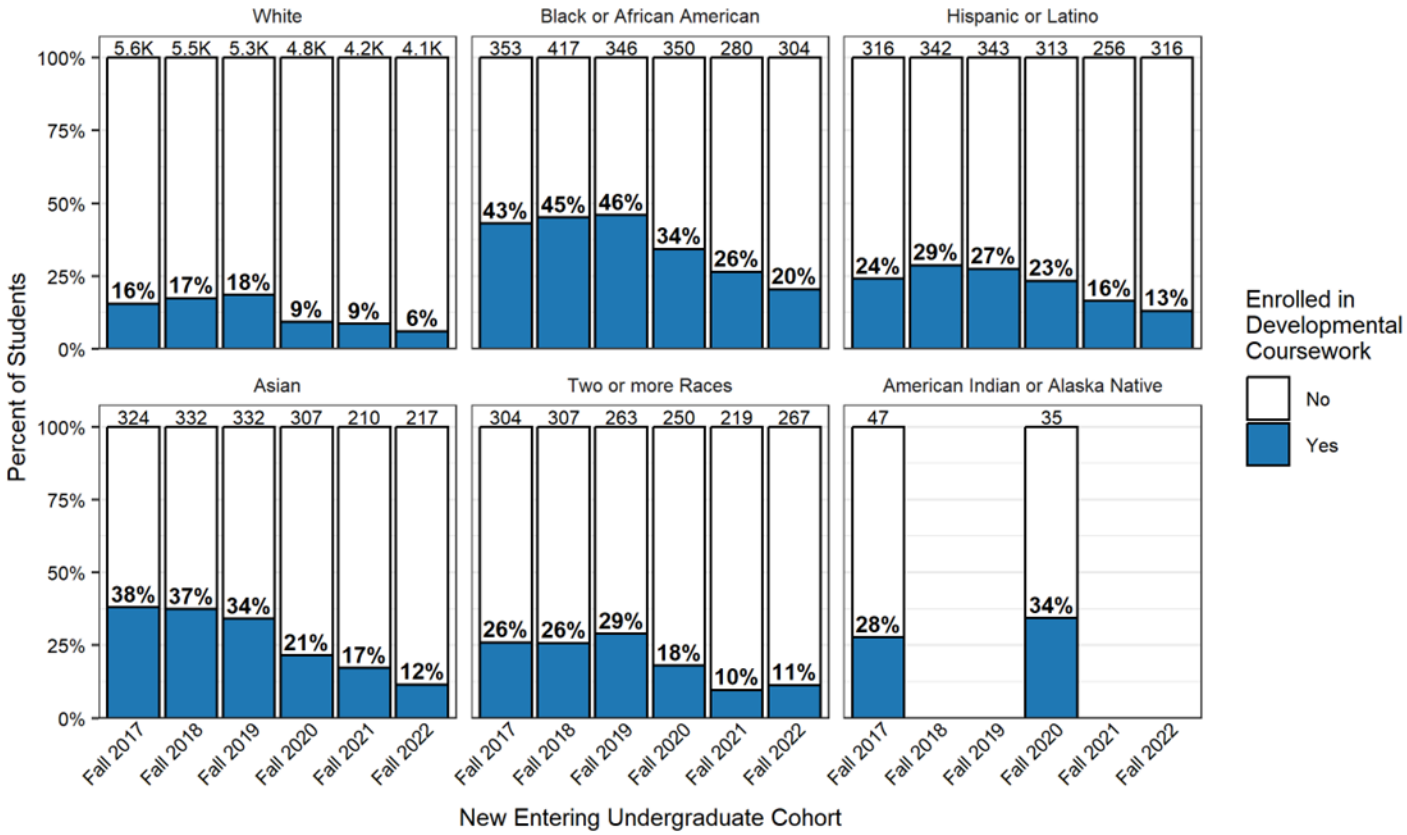
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable.

Figure 8: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Race/Ethnicity and Cohort, Community Colleges



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable.

Figure 9: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Race/Ethnicity and Cohort, Universities



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable.

The Minnesota State System began collecting more detailed information on the racial/ethnic identities of students in 2021. For the Fall 2021 and Fall 2022 cohorts, we explored whether there are differences in developmental enrollment among sub-groups within each federally defined race/ethnicity (Figure 10, Figure 11,

Figure 12, Figure 13). We conducted a t-test for independent group analysis for the 2021 and 2022 combined fall cohorts. In general, results indicated that for all institutions (community colleges and/or university) white students were less likely than students of color to be enrolled in developmental education (p-value<.05). All other groups were more likely to be enrolled in development education compared to their non-group peers (p-value<.05). These results mean that of all Minnesota State System students enrolled in these combined cohorts, students of color are much more likely to enroll in developmental education. The two instances where there was no statistically significant difference was between Asian and non-Asian students enrolled in community colleges and two-or-more race and non-two-or-more race students at university.

We conducted statistical tests to identify differences in developmental education enrollment among disaggregated Asian, Black/African American, and Hispanic student groups. Two tests

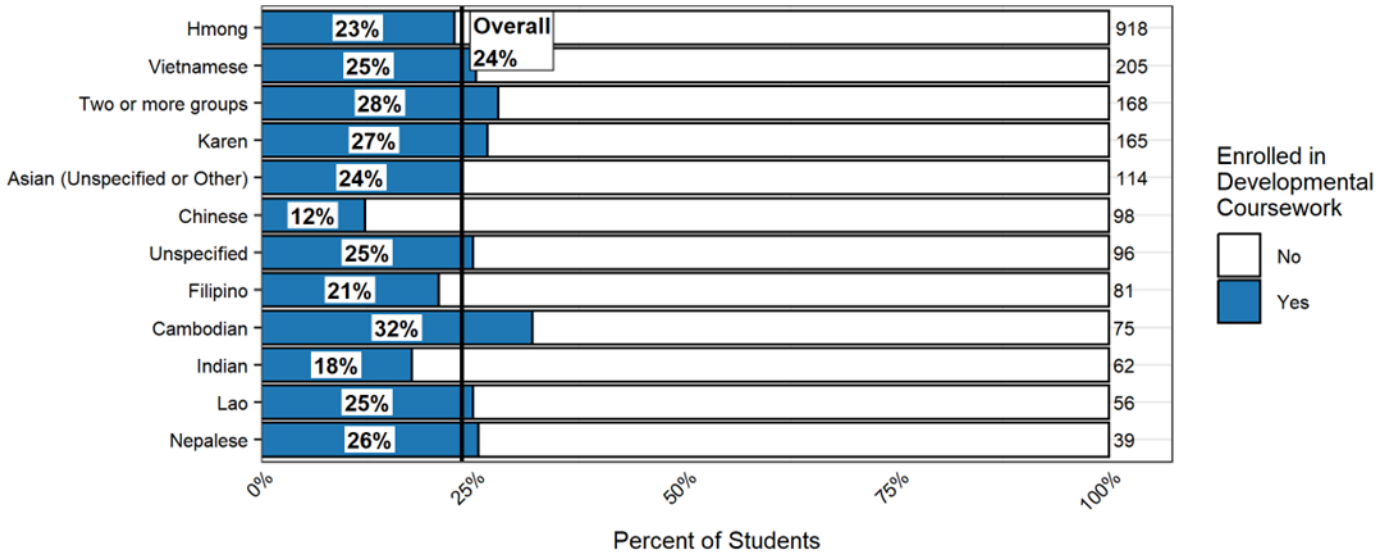
were employed to analyze the differences. The first was a chi-squared test, which helped us determine whether statistically significant differences existed in a group. The second test was regression analysis, which was used to compare a select base group with the other groups.

First, for Asian student groups, the chi-square test indicated no difference between the groups in developmental education participation $X2(15, N=2187) = 24.0651$, p-value=0.064. However, the regression results indicate when using Hmong students as the reference group, Chinese and Korean students were less likely than Hmong students to be enrolled in developmental coursework at all types of institutions (p-value<.05). For all other Asian sub-groups there were no statistically significant differences with Hmong students (p-value>.05). These results suggest that there is little difference between likelihood of developmental education enrollment between subgroups of Asian students, and that interventions targeted broadly at Asian students may be appropriate.

Second, for Black/African American students, the chi-square test indicated differences among the sub-groups $X2(11, N=5580,) = 24.74$, p=.010. The regression results indicate that when using Somali students as the reference group, Liberian, Other Black/African American and Other Middle Eastern or North African students, are more likely to be enrolled in developmental education coursework compared to Somali students enrolled at all types of institutions (p-value<.05). For all other sub-groups, there were no statistically significant differences in developmental education participation (p-value>.05). These results provide preliminary evidence that specific interventions targeted to subpopulations of Black students may be appropriate. More significant than the subgroup disaggregation, however, is that identifying as Black significantly increases the likelihood that a student will enroll in developmental education, regardless of their racial subgroup identification.

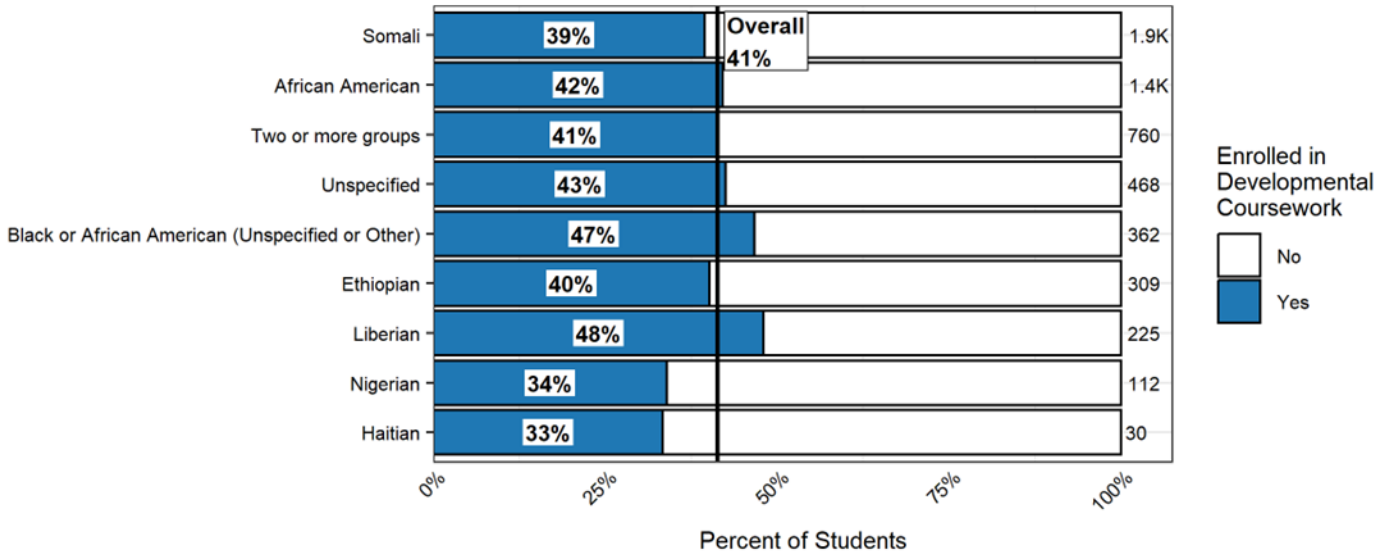
Third, for Hispanic/Latino students, the chi-square test indicated no difference between the associated sub-groups $X2(24, N=3647) = 26.5806$, p-value=0.324. The regression analysis results indicate that when using Mexican or Mexican American students as the reference group, there were no statistically significant differences in developmental education participation for any sub-group with more than 5 students (p-value>.05). This suggests that targeting interventions to Hispanic/Latino students broadly, rather than to any specific subgroup, would be appropriate.

Figure 10: Asian Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Detailed Race Category, 2021 And 2022 Fall Cohorts Combined



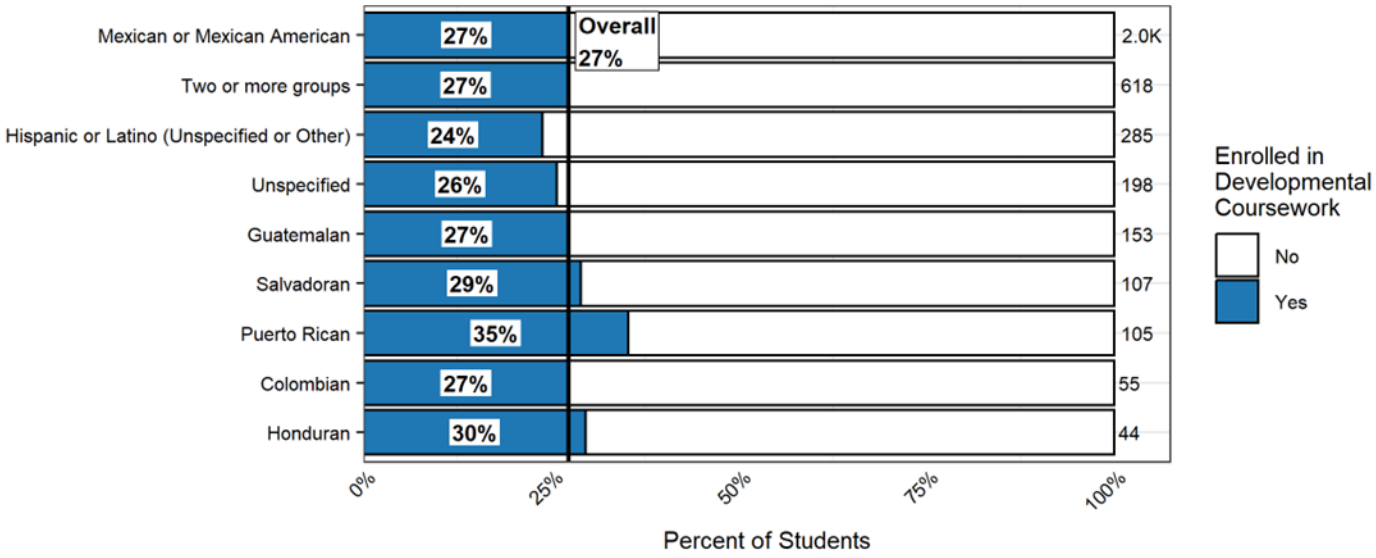
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Groups with less than 10 individuals in either enrollment category are not displayed.

Figure 11: Black/African American Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Detailed Race Category, 2021 And 2022 Fall Cohorts Combined



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Groups with less than 10 individuals in either enrollment category are not displayed.

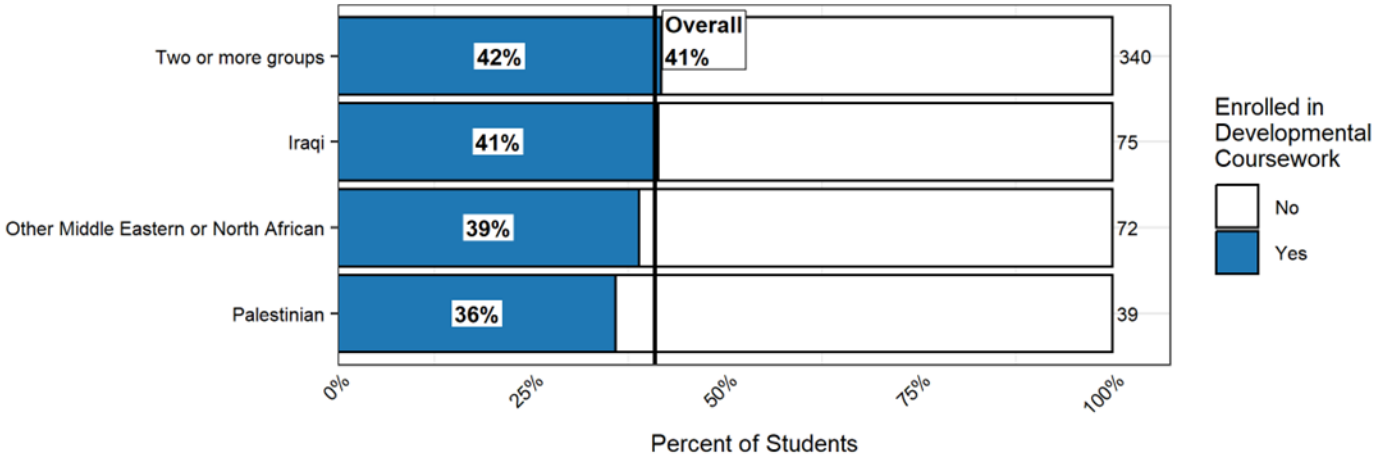
Figure 12: Hispanic or Latino Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Detailed Race Category, 2021 And 2022 Fall Cohorts Combined



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Groups with less than 10 individuals in either enrollment category are not displayed.

Please note that "Middle Eastern or North African" is not a category included in the federal race/ethnicity groupings. Students in this category are most often coded as "White," "Black," or "Two or More Races" in the more general grouping.

Figure 13: Middle Eastern or North African Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Detailed Race Category, 2021 And 2022 Fall Cohorts Combined



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Groups with less than 10 individuals in either enrollment category are not displayed.

Age is an important characteristic to pay attention to, particularly because developmental placement practices impact older students differently from recent high school graduates. As they

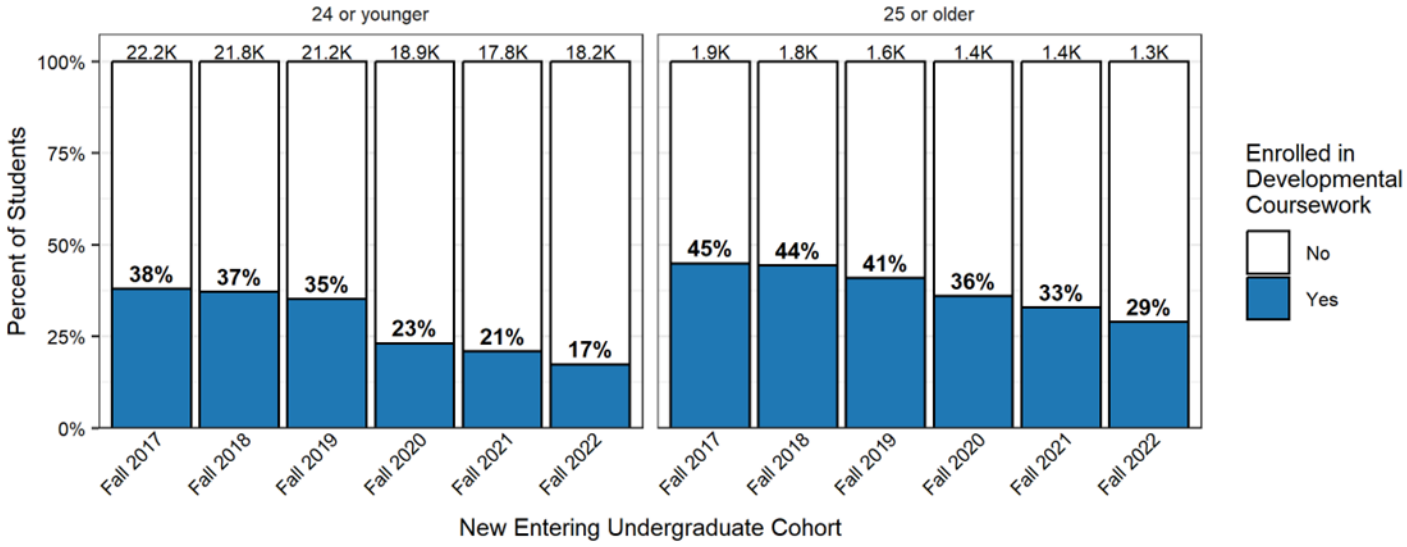
move away from placement testing, Minnesota State System institutions are increasingly relying on HSGPA and exams taken in high school (ACT, SAT, MCA) to place students. As these metrics may not be available for some adult students, this may mean that guided self-placement, institution derived assessments, or the ACCUPLACER are the primary measures for placing some adult students.

Across all cohort years, students aged 25 and over enrolled in developmental coursework at higher rates than did younger students (p-value<.05) (Figure 14).

Additionally, while both age groups have seen declines in the percentage of students enrolling in developmental education, this decline has been less steep among older students, causing a larger gap in college-level placements between 24 and younger and 25 or older students.

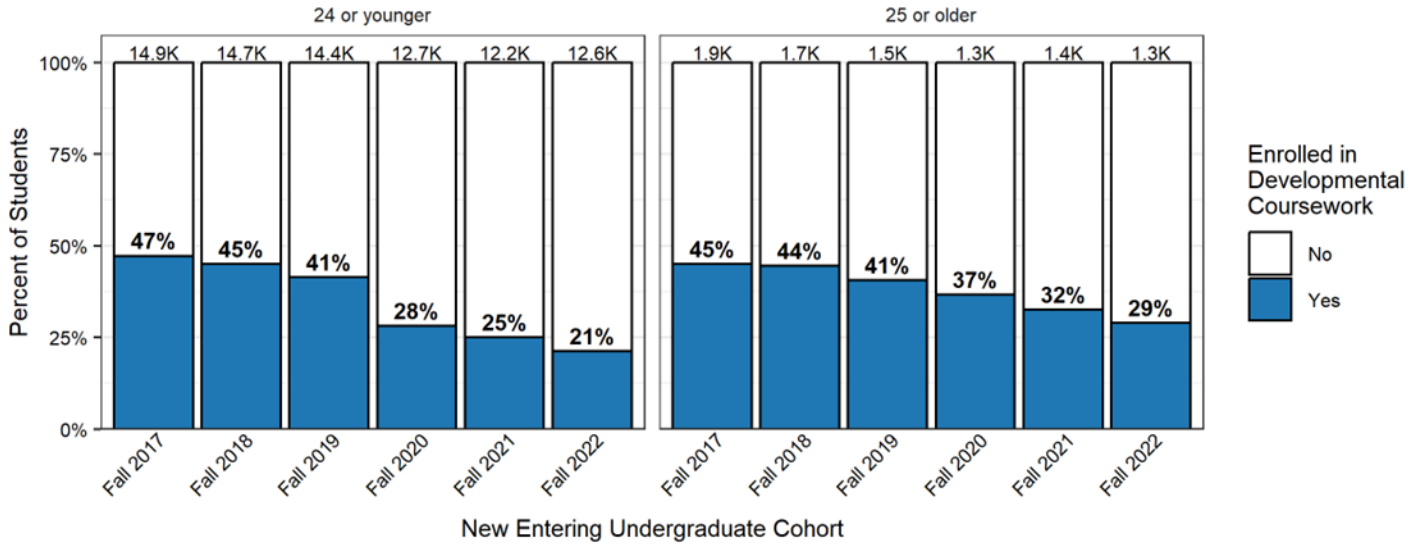
Also, nearly all Minnesota State System students who start college at age 25 or older attend a community college; the universities serve almost entirely students who enter at age 24 or younger, or older incoming students who have transfer credits or other previous college experience.

Figure 14: Minnesota State New Entering Student Enrollment in Developmental Education, By Age and Cohort, All Institutions



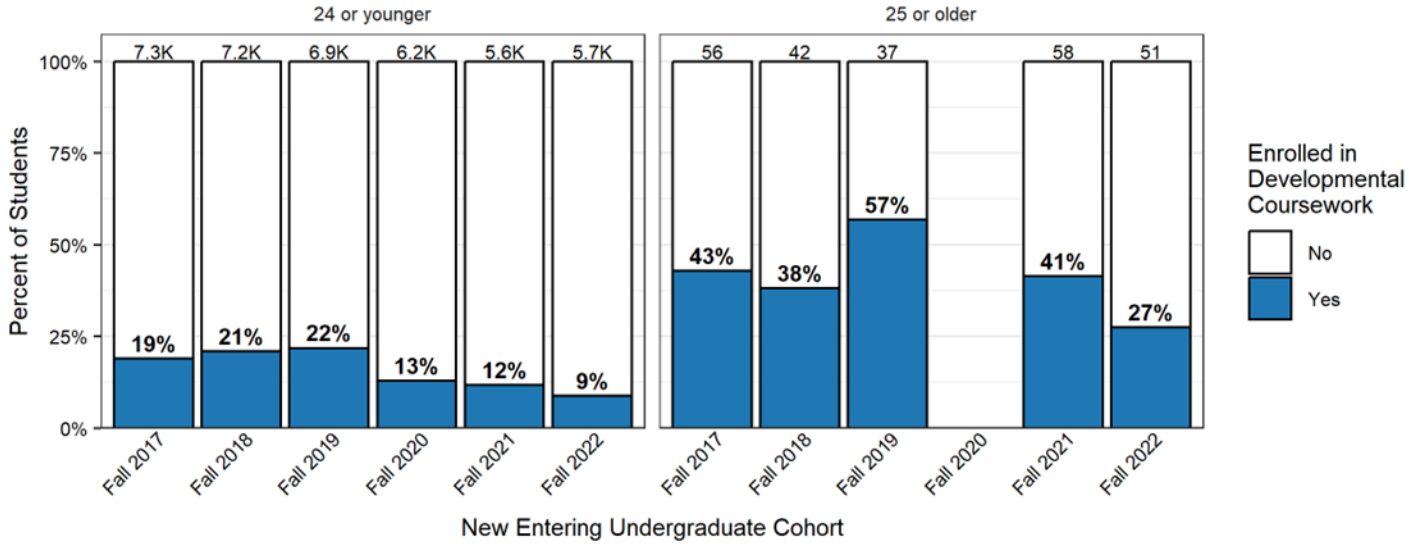
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Age is approximate as of the cohort term start date.

Figure 15: Minnesota State New Entering Student Enrollment in Developmental Education During the First Year of College Attendance, By Age and Cohort, Community Colleges



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Age is approximate as of the cohort term start date.

Figure 16: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Age and Cohort, Universities



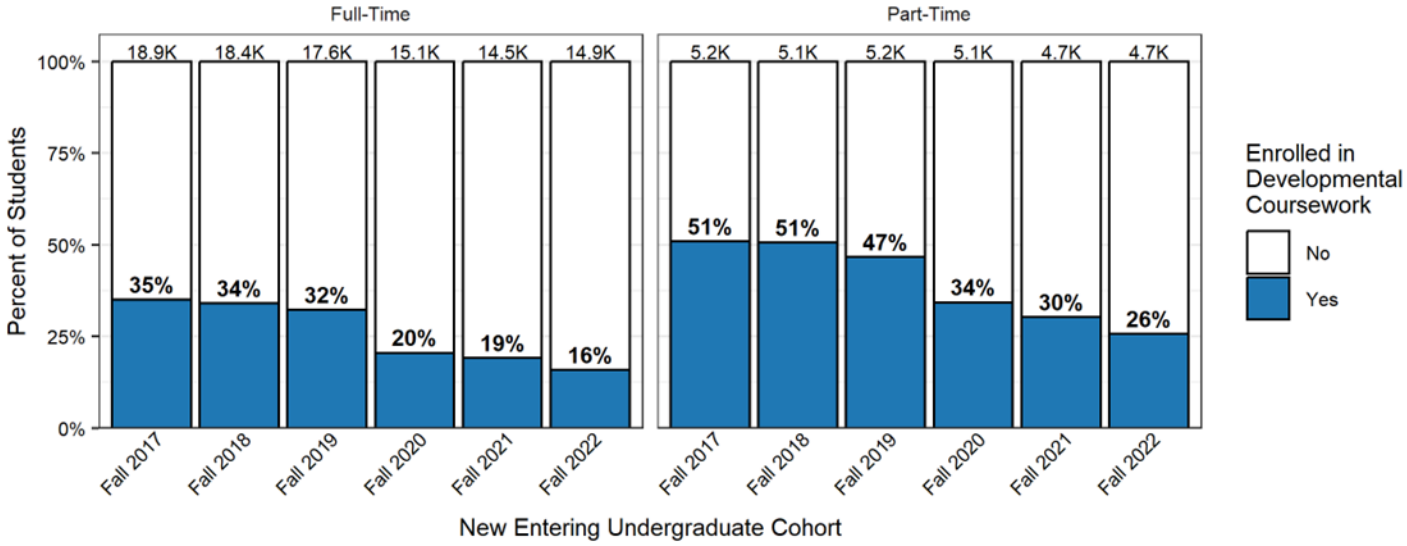
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Age is approximate as of the cohort term start date. Groups with less than 10 individuals in either enrollment category are not displayed.

Students who enrolled part-time (meaning fewer than 12 credits) their first semester enrolled in developmental education at higher rates than did full-time students (Figure 17). Because older students are much more likely to be part-time than are younger students, we also looked at part-time status for different age groups. Within the under-25 age group, part-time students were more

likely to enroll in developmental coursework than full-time students (p-value<.05) (Figure 18). Within the 25+ age group, both full-time and part-time students were about equally likely to enroll in developmental education coursework (

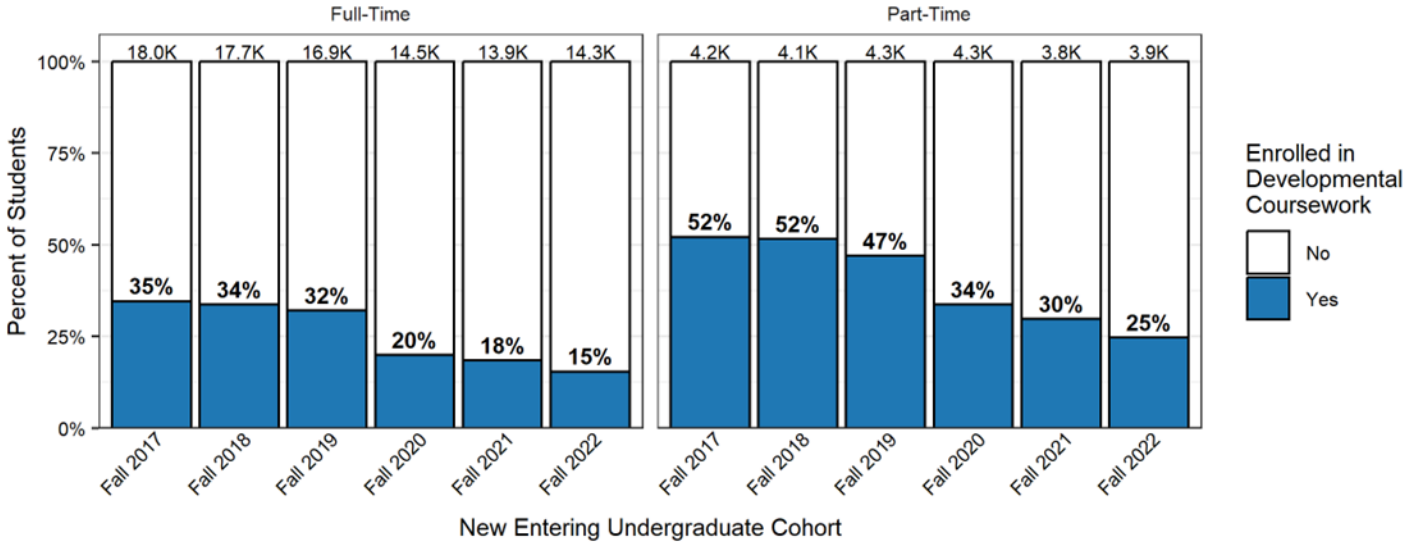
Figure 19).

Figure 17: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By First-Semester Enrollment Intensity, All Age Groups



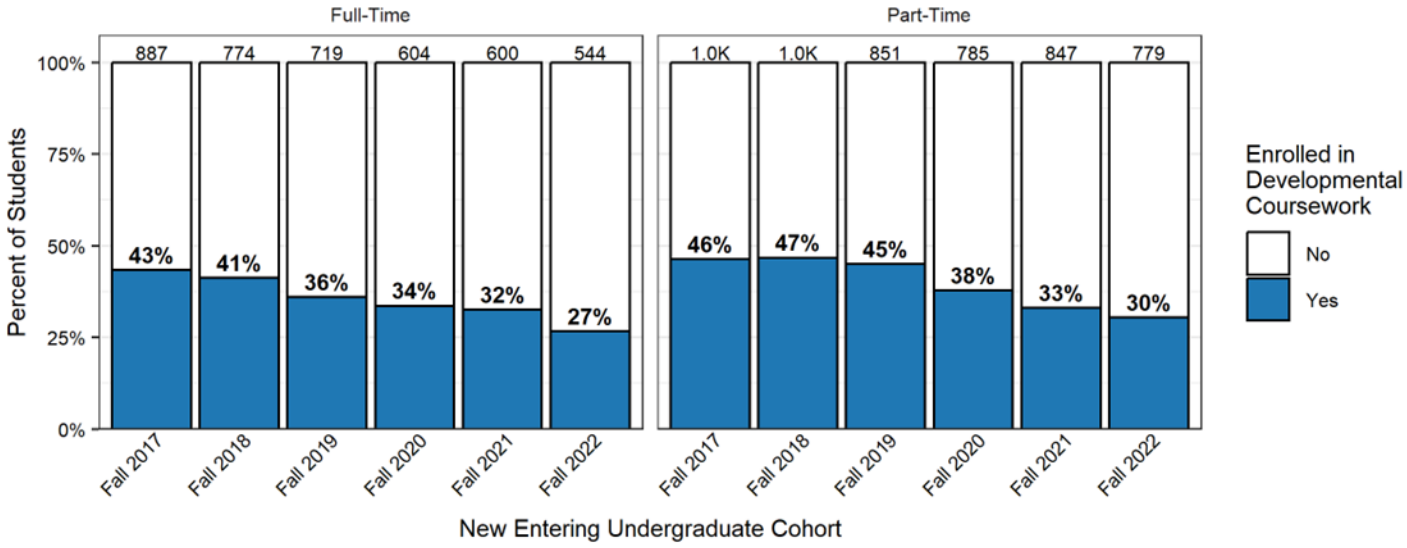
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Full-time includes those who enrolled in 12 or more credits their first semester.

Figure 18: Minnesota State New Entering Student Enrollment in Developmental Education, By First-Semester Enrollment Intensity, Age 24 Or Younger



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Age is approximate as of the cohort term start date. Full-time includes those who enrolled in 12 or more credits their first semester.

Figure 19: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of Attendance, By First-Semester Enrollment Intensity, Age 25 Or Older

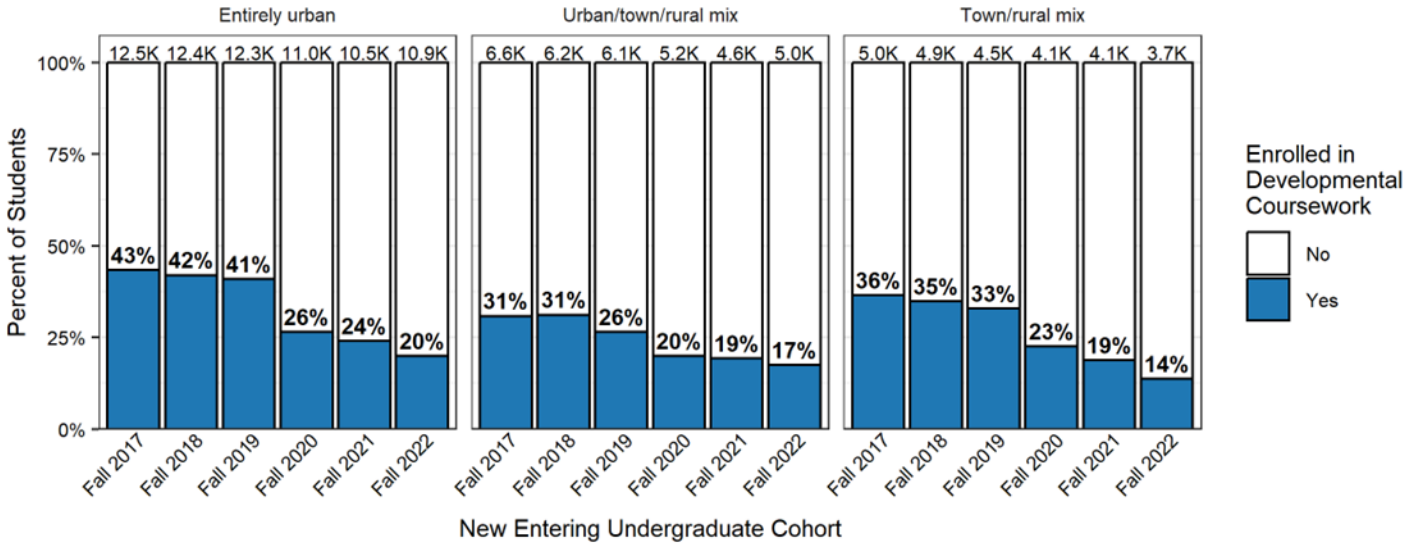


Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Age is approximate as of the cohort term start date. Full-time includes those who enrolled in 12 or more credits their first semester.

To identify whether there are differences in developmental enrollment for urban vs. rural students, we used two indicators of rural/suburban/urban status: the county of the enrolled Minnesota State System institution, and the county of the student's high school. In both cases, counties were categorized based on a list developed by the Minnesota State Demographic Center and used by the MN Center for Rural Policy and Development.

Generally, students attending urban institutions, or who attended urban high schools, are more likely to enroll in developmental coursework than students from high schools in other regions (p-value<.05).

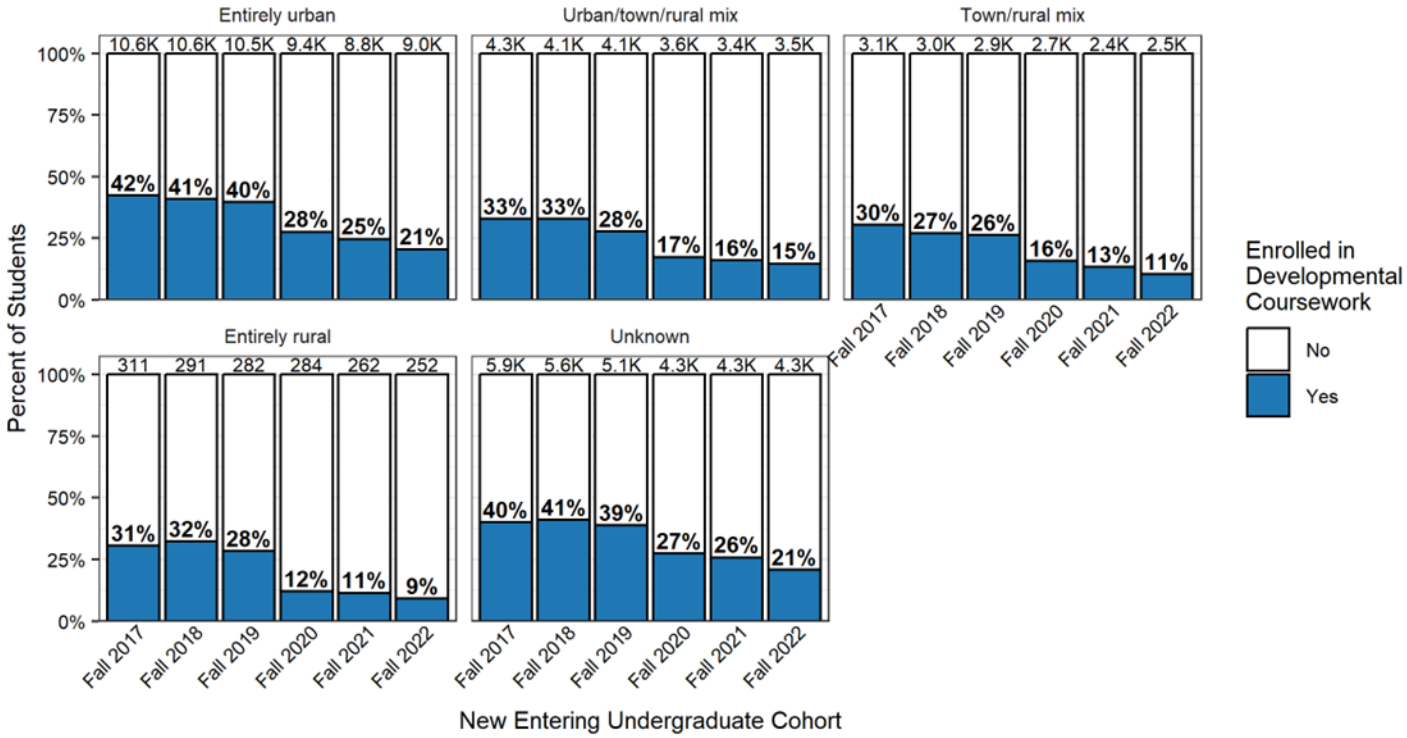
Figure 20: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of Attendance, By Urban/Rural Location of Institution and Cohort



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. MN State institutions are classified based on the county where their main campus is located according to the taxonomy used by the MN Center for Rural Policy and Development.

Students who did not attend a Minnesota public high school are included in the “Unknown” group below.

Figure 21: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of Attendance, By Urban/Rural Location of Student's High School and Cohort



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. H.S. location is only available for students who attended a public K-12 school in MN. Schools associated with each student's most recent K-12 record are classified based on the county where they are located according to the taxonomy used by the MN Center for Rural Policy and Development.

We analyzed several available metrics on students' K-12 backgrounds to see how they correlated with enrollment in developmental education in college. Please note that these metrics were only available for students who attended a public high school in Minnesota; we lack data on students who attended an out-of-state high school, a private high school, or who graduated before approximately 2007. Those students are categorized as "unknown" in the several graphs that follow. In Fall 2022, 16% of new entering students could not be identified by the location of their high school as rural, town/rural mix, or urban.

The qualitative portions of this study indicated that we may need to pay particular attention to the enrollment and outcomes associated with English learner status as well as Free/Reduced Price Meal Eligibility, so we look at those dimensions first.

Along with race/ethnicity, English learner status is one of the student characteristics most strongly linked to developmental education enrollment. Students who are assessed during high school as needing additional English language instruction enroll disproportionately in developmental education courses in college (p-value<.05) (Figure 22). However, rates of developmental education enrollment among these students have seen sharp declines—from 74% in the Fall 2017 cohort to 36% in the Fall 2022 cohort.

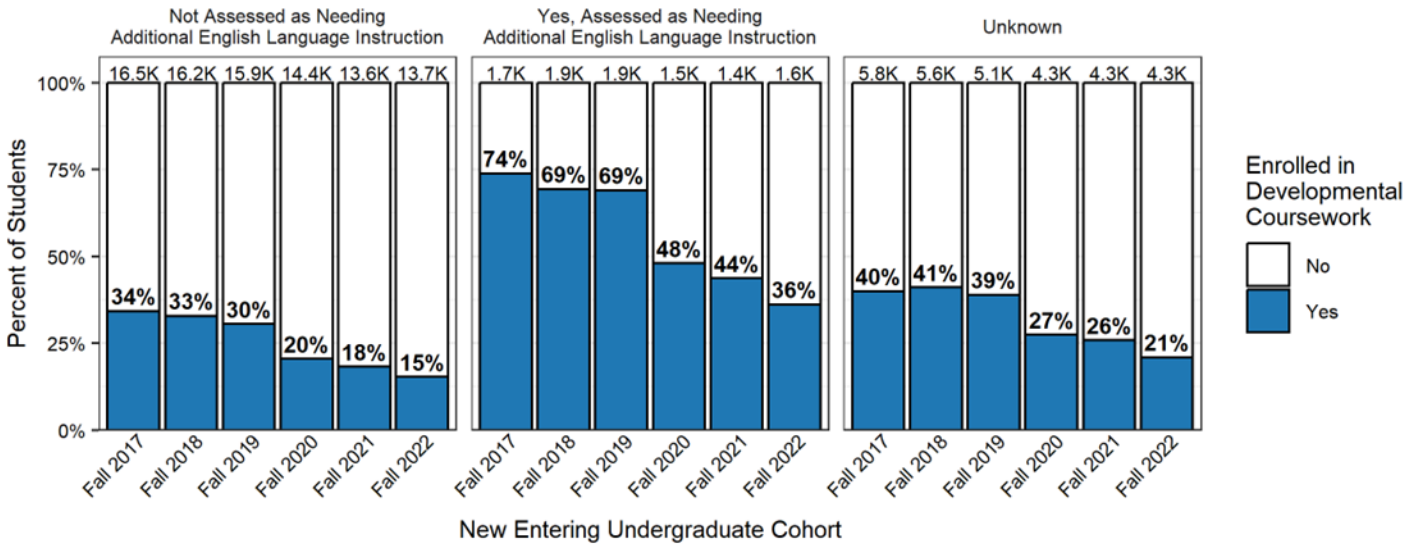
Free/reduced-price meal eligibility during high school is the only available metric that provides an approximate indicator of students' socio-economic status. Students who were eligible for free/reduced-priced meals during high school, meaning they generally come from low-income families, enroll in developmental education at higher rates than other students (p-value<.05) (Figure 23)

We also looked at whether students participated in "rigorous" coursework during high school, defined as Advanced Placement, International Baccalaureate, or Postsecondary Enrollment Options (PSEO) dual enrollment. Students who enrolled in those rigorous courses during high school were indeed less likely to enroll in developmental education courses as college students (p-value<.05) (Figure 24). Students who identify as something other than White are less likely to enroll in a rigorous high school curriculum suggesting that an increase in enrollments in PSEO, Concurrent Enrollment, AP and IB could address equity gaps in developmental education placement.[23]

Additionally, we looked at whether students received special education services while in high school. Those who did receive special education services were more likely than those who didn't to enroll in developmental education coursework (p-value<.05) (Figure 25).

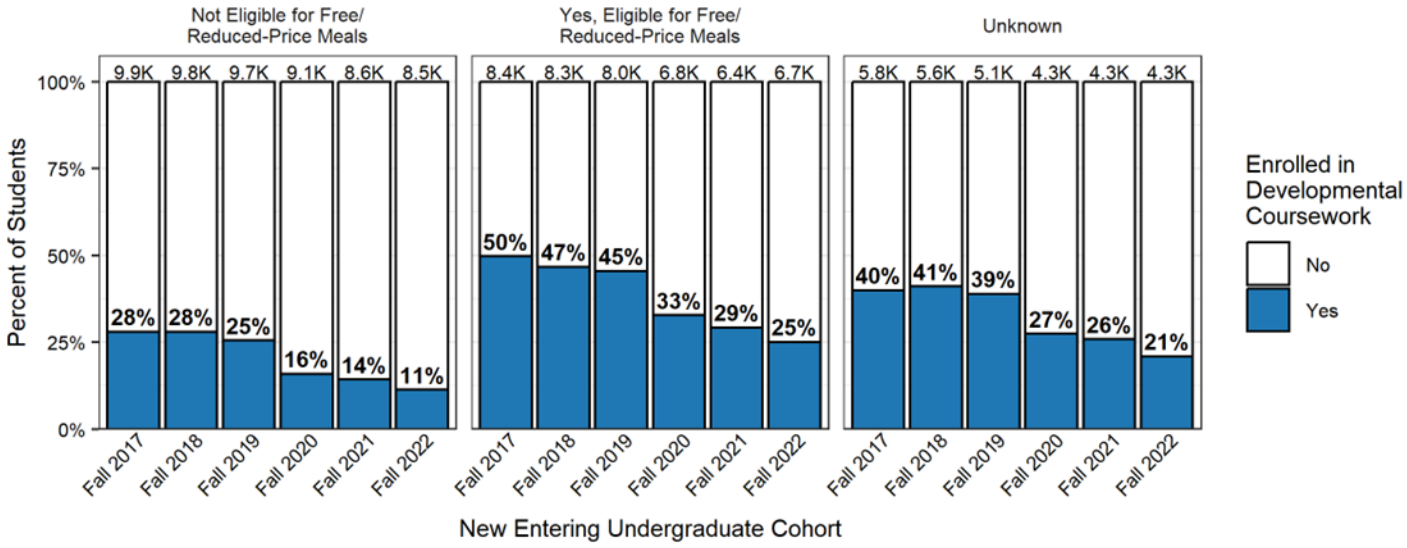
Finally, we looked at whether students' status as a Career-Technical Education (CTE) "concentrator" in high school was correlated with their college developmental education enrollment. These are students who successfully completed at least two courses in the same occupation-focused CTE field while in high school. We found that students with the referenced CTE status in high school are less likely to enroll in developmental education courses than students who did not have the same CTE status or in the cases when it is unknown (p-value<.05) (Figure 26).

Figure 22: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By High School. English Learner Status and Cohort



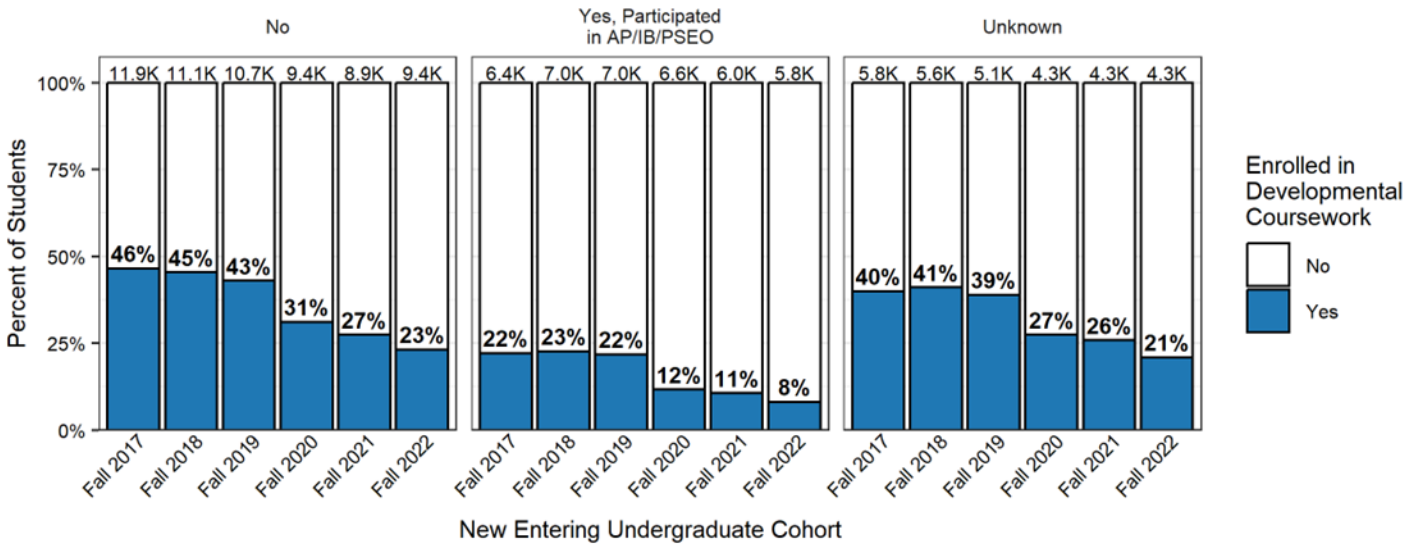
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. H.S. English Learner status is only available for students who attended a public K-12 school in MN. If a student was identified as needing additional English language instruction at any time during grades 9-12, they are counted as a 'Yes'.

Figure 23: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College, By Free/Reduced Price Meal Eligibility and Cohort



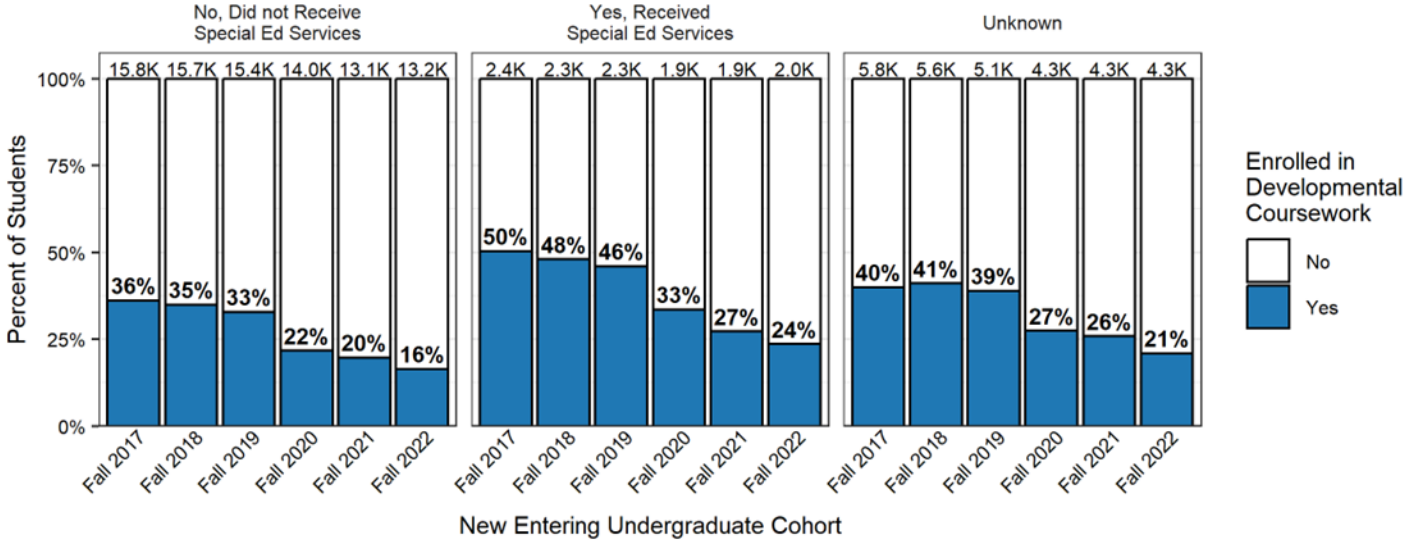
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Free/reduced price meal eligibility is only available for students who attended a public K-12 school in MN. If a student was eligible at any time during grades 9-12, they are included as a 'Yes'.

Figure 24: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Rigor of High School Curriculum and Cohort



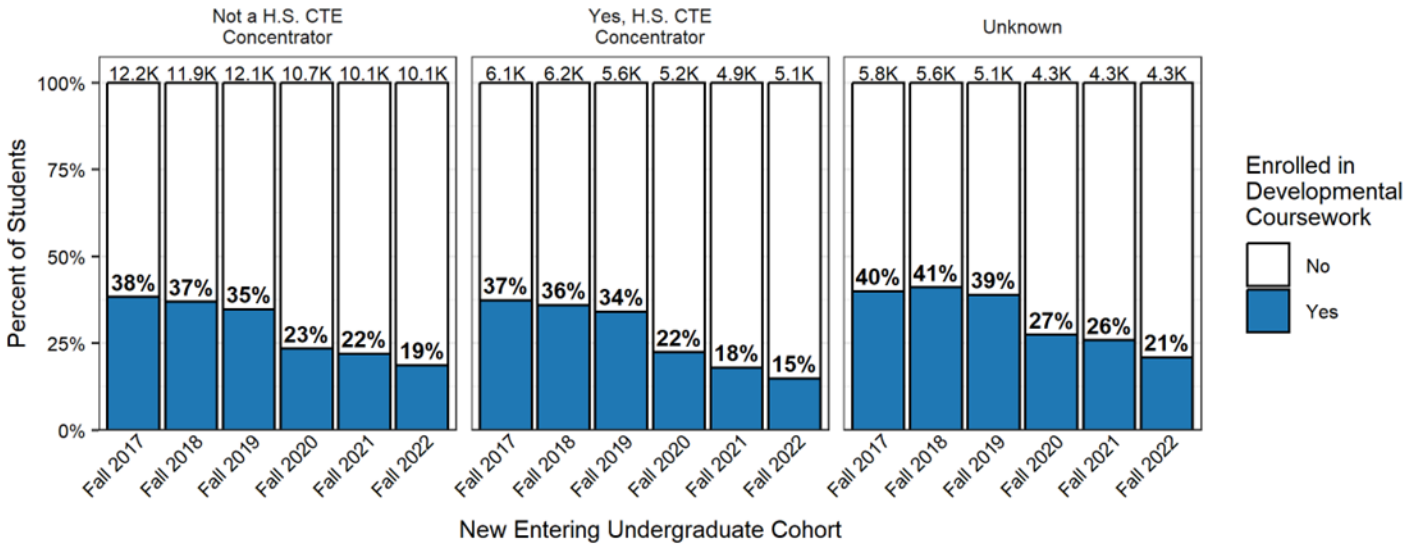
Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. HS curriculum rigor is only available for students who attended a public K-12 school in MN. If a student participated in AP, IB, or PSEO Concurrent Enrollment coursework at any time during grades 9-12, they are included as a 'Yes'.

Figure 25: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By Special Education Status and Cohort



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. Special education status is only available for students who attended a public K-12 school in MN. If a student was receiving special education services at any time during grades 9-12, they are counted as a 'Yes'.

Figure 26: Minnesota State New Entering Student Enrollment in Developmental Education During First Year of College Attendance, By High School CTE Participation And Cohort



Source: MN SLEDS. Note: New entering undergraduates are those who never previously attended any postsecondary institution for credit, except while a secondary (high school) student. Fall cohorts include summer starters. Identifies those who enrolled in one or more developmental education courses for credit within their first year of enrollment. HS CTE participation is only available for students who attended a public K-12 school in MN. If a student was counted as a Perkins 'concentrator' at any time during grades 9-12, they are included as a 'Yes'.

Minnesota State System Reform Efforts

The Minnesota State Course Placement Committee began exploring revisions to the system's approach to assessing and placing students into developmental education and college-level courses. The committee has made the following efforts since the adoption of guidance to institutions during the COVID 19 pandemic.

2021- Campuses requested a program pilot that allowed colleges to extend the guidance provided during the COVID 19 pandemic. The pilot was approved by the Senior Vice Chancellor for Academic and Student Affairs. The pilot was initially to take place from Fall 2021 - Fall 2023. Minnesota State extended the guidance for institutions until a new policy was adopted.

Spring, 2024 - Recommended changes in the system placement policy through the Policy Council Process. The process included public comment on the proposed policy.

Fall, 2024 - Adoption of the policy was paused until the legislatively mandated State Placement Review study was complete. In the meantime, the guidance from the pilot project was extended through the 2024-25 academic year.

A key challenge to effective placement is Minnesota State System's timely access to high school performance information that can facilitate accelerated admissions and placement decisions. For example, MCA scores, which legislative policy requires to be a measure for placement, are not available in a timely manner for initial placement decisions. In addition, HSGPA is not immediately available from the Statewide Longitudinal Data System. HSGPA is not gathered in a uniform process across all institutions.

Once students receive a placement at a college that they have applied to for admission, they are able to view their placement by logging into the E-services system at Minnesota State. Through E-services students can view their specific math, writing, reading or English language course placements. Students can view their placement at all institutions that they have applied to, allowing students to make enrollment decisions based, in part, on their placement.

Beginning in 2020, the Minnesota State System established an English Language Learner (ELL) Workgroup. The working group has taken the following actions to date.

- **2021** - Submitted statewide and local recommendations to the Senior Vice Chancellor for Academic and Student Affairs on how to more effectively meet the needs of students who are non-native English speakers. Recommendations focused on creating greater standardization of the assessment, placement, instruction and learning outcomes for students who were placed into ELL, EAP or other English language instruction. Almost all recommendations were approved by the Senior Vice Chancellor to move forward at the system level.
- **2022 -** Submitted recommendations to add questions to the Minnesota State System universal application to gather data on the multilingualism of the Minnesota State System students. The data collected will inform system and institutional efforts to better understand and meet the needs of multilingual learners. In addition, the questions would help identify students who are interested in writing instruction.
- **2023 -** Recommended the development of system policy and procedure to: add questions on the system universal application to assess multilingualism of prospective students and

standardize course sequences, credit caps, college-level and developmental placement criteria, and develop multiple measures for placement of students. The group recommended placement criteria for inclusion in a future revision of the Minnesota State System's course placement policy. The group also developed recommendations on credit caps and course sequencing and level. Recommendations are currently awaiting response from the Senior Vice Chancellor for Academic and Student Affairs.

Student Placement Institutional Policy/Practice

The project team assessed whether placement policies, practices, and measures are available on the institution's website so that current and prospective students can understand placement requirements. Information on placement was reviewed to determine if all placement processes were posted in a single place and included (or linked to) all information so a student could understand what was needed to place into credit-bearing coursework; this included listing details related to assessments, cut scores, HSGPA, or other processes involved in placement. Among Minnesota State System institutions:

- 20 (60.6%) were assessed as having clear, accessible information on their website,
- 6 (18.2%) were assessed as generally clear, but lacking relevant details,
- 4 (12.1%) did not include information about placement policies on their website, and
- 3 (9.1%) were assessed as being unclear about their placement policies

Institutions that were assessed as clear, but lacking relevant details would include items such as mentioning that HSGPA could be used for placement, but no mention of HSGPA thresholds or how students can use their HSGPA for placement; similarly, institutions mentioned guided self-placement as an option but offered no details of how it worked.

Some notable examples of clear, student-friendly placement policies, practices, and measures on the web included Lake Superior College, Normandale Community College, and Pine Technical & Community College. These institutions made placement information very easy to find as part of the admissions process, used student-focused language, and included transparent information about relevant thresholds for placement. For example, Lake Superior College's website showed all modalities of placement available, linked to information on all threshold scores, and made it clear that meeting the requirements of any one modality could satisfy placement into credit-bearing coursework; this included a printable one-page overview of all placement requirements.

The project team examined the use of multiple measures for placement of students into college-level work. We examined the extent that institutions were using multiple measures to include HSGPA for placement and whether they indicated that meeting the college-level placement standard for any of the measures the institutions utilized would qualify a student for college-level work. These elements are consistent with policies enacted by the Minnesota State Board of Trustees as well as additional guidance provided by the Minnesota State System during the COVID 19 pandemic. The review found that 29 (87.9%) institutions had policies supporting the use of multiple measures for placement evident on their website. The remaining institutions (12.1%) did not confirm whether they use multiple measures, were unclear about the use of multiple measures, and/or did not provide additional clarity when asked.

While multiple measures are widely used, there are differences among institutions on how each measure is used for placement. Institutions were assessed on their usage of measures such as HSGPA, ACCUPLACER, other standardized assessments (MCA/ACT/SAT), and guided self-

placement. While multiple measures were broadly adopted by institutions, there were differences in which measures were prioritized and the extent that other measures were considered.

HSGPA was used for placement in math by:

- 24 (72.7%) institutions,
- 7 (21.2%) institutions were unclear if they used HSGPA, and
- 2 (6.1%) did not use HSGPA.

When details on HSGPA were outlined, 18 institutions aligned with the guidance provided by the Minnesota State System by requiring a HSGPA of 2.8. Many institutions combined HSGPA with completion of Algebra II with a C- or better for placement into college-level math. Six schools either allowed a standalone HSGPA of 2.7 and two schools used a 2.5 or lower for placement into quantitative reasoning or statistics. Additionally, several schools used a multiple measures approach of 2.7 HSGPA plus meeting threshold qualifying scores on standardized tests (MCA/ACT/SAT) for college-level math placement. Combining HSGPA and standardized test scores is consistent with the guidance provided by the Minnesota State System on using multiple measures for placement.

Use of HSGPA for placement in writing was more consistent across institutions with only slight variations. The review found that:

- 26 (78.8%) institutions used HSGPA,
- 5 (15.1%) had unclear practices, and
- 2 (6.1%) were not using HSGPA for placement.

Of those using HSGPA for English placement, 20 established a 2.6 standalone HSGPA or 2.5 HSGPA while meeting threshold qualifying scores on standardized assessments (MCA/ACT/SAT) for college-level placement as spelled out in Minnesota State System guidance. All institutions using HSGPA indicated that it would be used for placement for up to 10 years following high school graduation.

Minneapolis College has moved away from using the ACCUPLACER for any student, relying instead on HSGPA, standardized assessment scores (MCA/ACT/SAT) and/or guided self-placement for placement. For new students entering directly out of high school, Minneapolis College uses HSGPA and MCA/ACT/SAT scores submitted during the application process to make a preliminary placement recommendation. Students may consult with an advisor if they have questions about their placement. While most institutions were using HSGPA, two institutions were still relying on ACCUPLACER as a standalone measure for placement.

Providing placement test preparation services is required by state statute in Minnesota. Institutions were assessed if they either provided test prep services on-campus, through partnerships with other organizations, or links to online resources. We found that:

- 25 (75.8%) offered test prep services
- 8 (24.2%) did not have evidence on their website of offering test prep resources or services.

Of those offering test prep services,

- 10 offered in-person supports with eight of those being offered through partnerships with ABE.

- 25 institutions offered links to websites or online practice tests as test prep resources.
- 3 institutions indicated that they were not offering test prep resources or services because of a movement away from using standardized assessments for placement.

The review examined the extent that guided self-placement was an option for placement. Guided self-placement is typically used for students who do not have a HSGPA. Guided self-placement allows students – in consultation with advisors or faculty – to place in college-level math and English courses. In math, eight (24.2%) offered guided self-placement and were clear about the process, another eight (24.2%) indicated that they offered guided self-placement as an option, but provided no details as to how it occurs. For math, 15 (45.5%) did not offer guided self-placement and two (6.1%) were unclear if guided self-placement was an option. For English, results were similar but with some minor differences: eight (24.2%) offered guided self-placement and were clear about the process; 10 (30.3%) offered GSP but were not clear about details; 13 (39.4%) did not offer guided self-placement in writing and two (6.1%) were unclear.

Institutions conducted guided self-placement in a variety of ways. These variations ranged from one-page self-assessment sheets to multi-step assessments; there may be value in investigating common approaches to avoid differences in approach between institutions. Guided self-placement requires students to review relevant content for the course to determine comfort with course material and review course options. As an example, Central Lakes College opens guided self-placement up to students not meeting any of the other placement criteria, requires them to complete a guided self-placement agreement, and to schedule an appointment with their advisor to review and discuss.

Institutions were also assessed about the role of advisors in providing guidance for guided self-placement students:

- 13 (39.4%) institutions required guided self-placement students to meet with an advisor to review and discuss the process,
- 1 (3%) encouraged but did not require meeting with an advisor for guided self-placement,
- 3 (9.1%) did not provide requested clarity about the role of advisors with guided self-placement, and
- 1 (3%) neither required, nor encouraged meeting with an advisor.

Institutions were assessed related to placement opportunities for students with low placement scores/results. For universities, institutions were assessed about requiring low-skilled students to fulfill academic requirements at a community college.

- 5 institutions (71.4%) offered course placements - either developmental or corequisite - to all students, regardless of placement scores,
- 1 institution (14.3%) provided developmental coursework just below college-level, but required lower-skilled students to attend a community college for these courses, and
- 1 (14.3%) was unclear about their policies on their website and did not respond to our request for clarification.

The review examined whether institutions require all new entering students to meet with an advisor prior to registration:

Seventeen (51.5%) institutions required new students to meet with an advisor before registering,

- 8 (24.2%) did not require, but strongly recommended students meet with an advisor prior to registering,
- 4 (12.1%) did not require nor encourage new students to meet with an advisor prior to registering, and
- 4 (12.1%) were not clear about the role of advisors with new students; these were either non-respondents or did not provide clarifying information when requested.

The review of institutional websites examined whether information about placement for students who are English language learners was accessible and understandable. There was wide variance on where this information was found on institutional websites. Some of the information was found on the international admissions pages or the placement website. While this information was available in different places:

- 26 (78.8%) had clear proficiency standards for English learners,
- 4 (12.1%) did not have any information about proficiency for English learners, and
- 3 (9%) either did not respond or provide clarity on their policies.

Several colleges continued to use a COVID-era pilot where they used the application process to identify non-native English speakers who had demonstrated English proficiency in other contexts; it was shared by a senior academic officer that this had been seen to be a beneficial practice. However, ESOL practitioners expressed concern about the purpose of gathering this information and how it would improve the identification and placement of students into ESOL.[24]

Transparency about which assessments are used to evaluate English proficiency was reviewed with:

- 29 (87.9%) use standardized assessments to determine proficiency for non-native English speakers,
- 2 (6%) administer institutionally developed assessments,
- 2 (6%) did not include any information about how non-native English speakers were assessed. Of the 29 institutions using standardized assessments, and
- 7 (24.1%) offered only one assessment option.
- 22 (75.9%) offer multiple placement score options.

One concern expressed by faculty and system staff was that there is no consistency on the identification, assessment and placement of English learners into ESOL across institutions. This is likely because Minnesota State does not have a system policy outlining the assessment and placement of students into ESOL courses. Inconsistent practice across the system invites inequity in practice and outcomes.[25]

Student Placement: Student, Faculty, Staff Report on Practices and Perceptions

Placement is one of the initial interactions between institutions and new entering students. Simple, easy-to-access, transparent placement processes, and proper advising related to placement can make it more likely students will enroll, have positive experiences and succeed. In the focus groups, students expressed frustration and confusion about their placement experience. They often do not understand why they are taking placement tests or how their score will be used, why they have been placed into a developmental course, or whether the courses they enroll in are credit-bearing. Integrating placement into discussions with advisors could alleviate this confusion. Table 2 provides data about placement testing practices from staff and faculty surveys. Fees for

students to take placement tests could generate inequities in the cost of postsecondary. By charging only those that require testing, those students are disadvantaged financially from students who are not required to take placement tests.

Table 2: Percentage of Responding Minnesota State Institutions That Employ Testing Practices for Student Placement into Math and Writing Courses

Testing Practice	Percent of Responding Institutions
Some testing requires a fee. *	22.2%
All testing requires a fee.	5.5%
Students can take tests at multiple locations or online.	38.9%
Testing is proctored.	61.1%
The schedules for testing include evening or weekend options.	27.8%
Number of responding institutions	18

*Some respondents noted that students can take the initial test for free but are charged a fee for retesting.

About a quarter of 22 advising staff survey respondents reported that their institutions review placement practices every one to three years and 75% reported there is no set schedule, or they did not know of a schedule at their institution. Examples of processes for reviewing practices came from Minneapolis College and Century College, which both described having working groups involving faculty and staff from multiple departments to review placement data and practices.

Of the respondents that reported reviewing and revising advising practices, 45.6% reviewed them annually and 13.6% review them every two to three years. Most institutions reported that advisors were deeply engaged in continuous improvement of placement practices through regular meetings, workgroups, training and tool development such as talking points regarding placement. An example of a continuous improvement practice came from Hennepin Technical College where advisors have annual discussions with deans and faculty about program updates and student concerns.

Most respondents use surveys to gather student feedback, but several added that they do not know if student feedback is being used to review and improve placement and advising practices. The lack of clarity among staff around continuous improvement is noteworthy given strong feedback from students that they were frustrated with the lack of information they received about placement and how much they valued high quality advising when it was provided.

Respondents at nineteen institutions reported providing training to advisors to meet the needs of traditionally underserved students to include students of color, students from low-income backgrounds, English learners, and immigrants through training with experts, discussions with non-student representatives of the populations and feedback from students.

Respondents reported innovations and successes in placement and advising. Several respondents reported that their institutions use guided self-placement in at least one discipline. Other specific examples of innovations include Rochester Community and Technical College which used disaggregated data to target specific groups of students with targeted messaging and services that has led to increased engagement and retention among at-risk populations. Normandale Community College is collaborating with their Institutional Research department to identify students who may need additional support to include placement in developmental education.

The transition from the use of standardized placement exams to multiple measures and guided self-placement has yielded mixed reactions among faculty and staff. Some faculty and staff members expressed concern about the HSGPA cut-off scores currently being used. They believe students are placed into courses for which they are not prepared because of grade inflation that occurred during the COVID 19 pandemic. One advising and placement staff member said, "during and after COVID 19, everyone's GPA just blossomed." This finding suggests that regular evaluation of HSGPA standards should be regularly conducted to ensure that placement standards maximize the success of students in college-level courses.

Because of this skepticism about placement measures, some faculty use assessments they developed to evaluate a student's placement at the beginning of a course to ensure they are not over or under-placed.

Some faculty focus group members mentioned the work of the Assessment for Course Placement Committee and indicated that implementing this group's recommendations might help ease faculty concerns.

There is also skepticism among faculty regarding the effectiveness of guided self-placement compared to standardized tests like the ACCUPLACER. The concerns about over placement due to guided self-placement and self-reported grades were echoed by faculty in both math and English. This skepticism was also articulated by ESOL faculty who perceive that students might bypass ESOL testing to accelerate their academic progress, potentially to their detriment. Concerns about non-proctored exams and the use of artificial intelligence were prevalent among faculty from all areas in the focus groups and surveys.

Advising staff called for more clarity and guidance on placement policies. They strongly advocated for a unified approach to placement to ensure consistency for students transferring between institutions. The varied interpretations and application of multiple measures policies have led to inconsistencies in student placement experiences.

> *"Given there are so many ways students can be placed into courses it is challenging to streamline communication to new students." Another advising staff member noted post-pandemic confusion, "And then just with not knowing, are we still under COVID guidance or are we in the intermittent guidance or are we on this new…every institution can kind of be doing their own thing."*

In the student focus groups, students expressed the need for more holistic supports beyond initial placement. Students who were returning to school after taking a hiatus or immigrating from another country noted that they could have used targeted support for building college know-how

and establishing good learning habits. TRIO programs were highly praised. One student said they only learned their developmental education courses did not count towards a degree when meeting with a TRIO advisor.

> *"My advisor in TRIO printed off a really lucid, super flexible, just a plan for my degree. So, it shows all the credits that I will be taking and all of the classes that I'll be taking to get the degree."*

Supporting English learners who apply and are admitted to postsecondary institutions are a valuable means of expanding opportunities to students, their families, and communities. Offering ESOL courses for admitted students can be an important strategy for increasing persistence among these students.

There are several institutions that have partnerships with community-based services and other educational entities that serve immigrant populations to prepare students for college admission. The International Institute's College Readiness Academy has a Memorandum of Understanding with St. Paul College that students who complete the program will be placed into a college-level English course without additional testing once they are admitted to a Minnesota State System institution. Century College has credit agreements with local high schools allowing placement based on high school course completion. Minneapolis College has agreements that establish predictable transfer and placement with the Minnesota English Language Program (University of Minnesota Twin Cities), the ELS Language Center (University of St. Thomas), and the Global Language Institute, a private language school. Pine Technical and Community College collaborates with the St. Croix Regional Education District on a referral process for services for English learners.

> *"...if their responses to those questions signal that they would benefit from ESOL coursework, then they're emailed with the option to either meet with the counselor and advisor or come into the testing centers to do some additional testing. So, what used to be a required placement test has just become kind of optional."*

The faculty and staff surveys and focus groups surfaced a major concern about the process of placing students who might benefit from support for English language acquisition. Several respondents noted that whether a student is recognized as an English learner depends on how they respond to a question on the college application. Because ESOL courses do not offer credit towards a degree, students do not take these courses. Faculty noted that students can also feel stigmatized by being identified as an English learner.

Several respondents specifically mentioned that English learners with HSGPAs can bypass testing even though faculty believe that these students would benefit from additional ESOL instruction. Respondents noted dramatic drops in ESOL enrollments due to changes in placement policy in the last few years.

The placement of English learners is a challenge that extends far beyond Minnesota. Researchers have found that ESOL placement tests have not been well-validated[26] and the potential for misplacement has not been thoroughly investigated.[27] The dilemma of how to provide adequate support for students to be successful in college while also helping them make progress towards

their goals of earning degrees without undue delay was a strong theme across faculty and student discussions. Students in the focus groups were frustrated with having to take non-credit courses and feeling they could have completed their ESOL coursework more quickly.

> *"I'm not saying that I didn't learn anything during those classes, but I think that doing a whole semester of ESOL classes was a little bit [of a waste] ... I learned new things, but I could have learned them in less than five months."*
> *"The challenge I have is I am a bilingual student. When the teacher says something, I would know what she was saying, but it will translate it into my language first…I can just barely say it or speak it [in English], but I do know how to say it in my own language. So, the challenge is that I can't talk to the teacher in my language, so she will know how to respond back to me and teach me how to say it [in English] ..."*

At the same time, students also talked about the challenges they face in other courses due to language acquisition.

Some faculty note that this dilemma is exacerbated by traditional ESOL structures in which all instruction and support is front-loaded in prerequisite, usually non-credit, courses rather than offering instruction over time in parallel with disciplinary courses. They had concrete suggestions of changes that could help address the problem.

- **Promote collaboration between ESOL faculty and faculty in other disciplines** to support faculty in integrating language acquisition supports into non-ESOL courses. "Since many multilingual learners are no longer taking EAP courses, there is a need for carefully planned support resources in major and general education courses. EAP faculty have expertise that could be leveraged in this area…" Two survey respondents reported that their colleges currently offer training for non-ESOL faculty on supporting English learners. Three reported offering training to staff.
- **Offer corequisite supports designed specifically for English learners.** Minneapolis College, St. Paul College and Normandale Community College offer an academic reading and writing course that is paired as a corequisite with a composition course.
- **Offer college credit for ESOL courses.** "Seeing as all students in ESOL courses are doing college level work by learning a language, this is one step we can take to work within a system that does not typically view language acquisition courses as the equivalent of other college-level language offerings." Winona State college lists two credit-bearing English as a Second Language courses in their catalog although they note that they often cannot offer them due to low enrollments.
- Institutions are also implementing innovations to improve services for English learner students. This includes embedding student support services into ESOL courses, guided self-placement, and shortening and redesigning course sequences.

The ELL Workgroup established by the System office has issued recommendations consistent with these faculty suggestions and addressing many of the concerns surfaced in our data collection.

Table 3 provides a snapshot of placement testing practices for ESOL courses. The same question regarding testing was put on the advising and placement survey and the survey for services for English learners. In three cases, we received conflicting responses from the same institution across the two surveys. It is easy to see how students might receive inaccurate and contradictory

information as they attempt to navigate the unfamiliar terrain of higher education. This underscores the importance of communication and training, especially in a landscape in which policies and practices may be changing rapidly. The table uses the data from Advising and Placement survey responses.

Table 3: Percentage of Responding Minnesota State Institutions That Employ Testing Practices for Student Placement Into ESOL

Testing Practice	Percent of Respondents
Some testing requires a fee. *	11.1%
All testing requires a fee.	5.5%
Students can take tests at multiple locations or online.	38.9%
Testing is proctored.	55.6%
The schedules for testing include evening or weekend options.	27.8%
The college does not require testing for placement.	33.3%
Number of institutions	18

*Some respondents noted that students can take the initial test for free but are charged a fee for retesting.

As with developmental education, the ESOL course sequences varied greatly with survey respondents reporting that their institutions offered two to six courses prior to college-level English.

The survey revealed challenges regarding the evaluation of placement practices. As discussed above, many English learners are not recognized as English learners because they choose not to self-identify. This means the institution has no way to track their progress and evaluate if the placement policies are giving students the best opportunity for success. Respondents indicate that historically faculty were very involved in reviewing and revising placement practices. Some reported that it is more difficult now due to policy changes. Table 8 shows wide variation in the frequency of continuous improvement processes for placement and course design and instructional practices.

Table 4: Frequency of Review and Revision of Placement, And Course Design and Instructional Practices for ESOL Courses Among Minnesota State Institutions.

Frequency of Review and Revision	Placement Practices	Course Design and Instructional Practices
Annually	33.3%	30.8%
Every 2-3 years	13.3%	23.1%
Every 4-5 years	6.7%	23.1%
No set schedule	40%	23.1%
Number of institutions	14	13

The survey respondents report using course success rates, disaggregated data and student surveys and evaluations in their continuous improvement efforts. Some respondents noted that data is not always integrated into decision-making processes. One key finding is that some institutions reported no or very limited effort to assess the success of English learners as they transition into non-ESOL courses. One respondent reported that faculty have been told by their institutional research office that tracking student success after completion of the ESOL program is too difficult. There were a few examples of colleges meeting this challenge. Inver Hills Community College reported that faculty get data on course completion in ESOL and success in subsequent courses. The faculty use this information to assess equitable teaching. Minnesota State Community and Technical College tracks the success of ESOL students in composition. Century College tracks success for courses taken concurrently with the final ESOL sequence and in the most common courses taken after completion of ESOL and tracks the top majors/pathways chosen by ESOL students. The department uses the information to assess areas for targeted support.

Another area that greatly impacts English learners is the supports they receive outside of the ESOL programs. Eight institutions reported offering tutoring for English learners in non-ESOL classes. Only one respondent reported that the institution routinely provides information in multiple languages and three reported offering translation services.

Developmental Education Implementation

Current State and System Policy

In December, 2022 The Senior Vice Chancellor of Academic and Student Affairs and the Interim Vice Chancellor of Academic Affairs issued a memorandum to college and university presidents announcing the creation of a Developmental Education Working Group that will be supported by the Chancellor and college and university presidents to develop an implementation plan for a corequisite model.[28] The plan was to be submitted to the Chancellor for consideration by June, 2023. The plan outlined a four-phase process for fully scaling corequisite developmental education in writing, reading and math by Fall, 2027.[29]

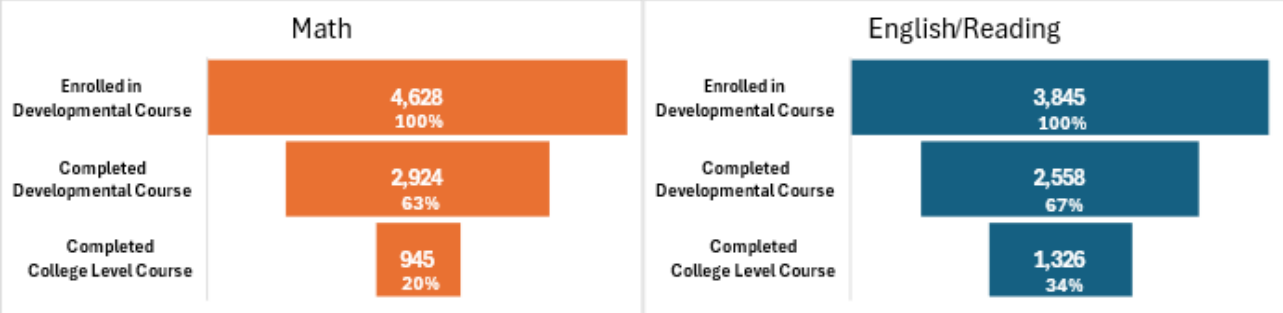
Quantitative Data on Student Success Outcomes

Enrollment in developmental education courses is associated with lower completion rates for college-level courses in math and English, lower rates of persistence to the second year, and lower graduation rates. While these results hold across all students that enroll in developmental education, there are also differences by student characteristics, which we explore below. Generally, the same groups of students who enroll in developmental education at higher rates also complete college-level coursework at lower rates, persist to a second year at lower rates, and graduate at lower rates compared to other students; this includes students of color, English learners, and those eligible for free/reduced-price meals. This further enlarges existing equity gaps by disproportionately placing more students from underserved backgrounds into prerequisite developmental education sequences that have proven to be ineffective. For research on the reasons that prerequisite developmental education causes, refer to the Research Primer that accompanies the report.

Throughput

Only a small percentage of students who enroll in developmental coursework end up successfully completing college-level coursework within their first year (Figure 27); 20% in math and 34% in writing. An even smaller portion of those *placed* into developmental coursework complete this key benchmark in the first year, as many students do not enroll in the developmental courses they were placed into during their first year.

Figure 27: Throughput of Students Enrolled in Developmental Education Within One Year, Fall 2021 And Fall 2022 Cohorts



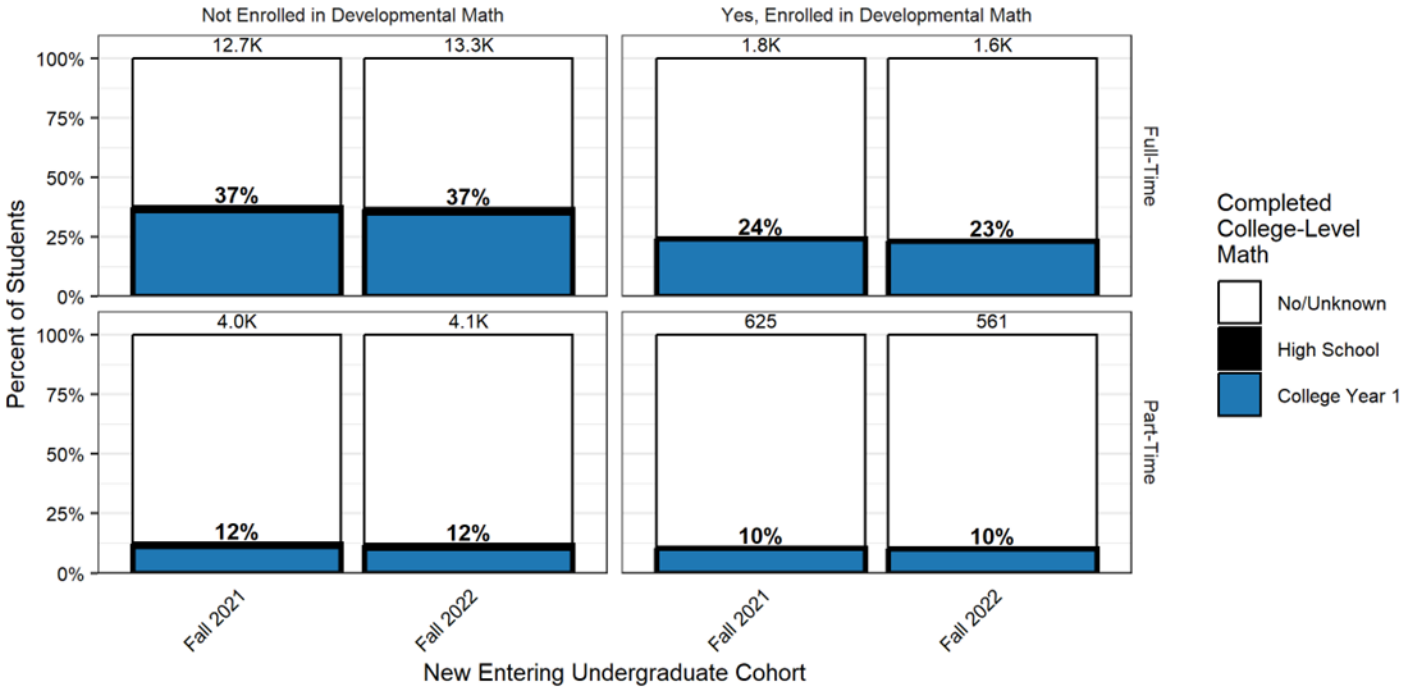
College-Level Course Completion Within One Year

Regardless of developmental education enrollment, the minority of new entering students at Minnesota State System institutions complete college-level math within their first year. This includes students who completed college-level math and English through PSEO and courses completed the summer before fall enrollment. Part-time students are less likely to complete college-level coursework within their first year, which is not surprising as they enroll in fewer credits during that time frame compared to full-time students. Overall, those who enrolled in developmental math were less likely to complete college-level math within their first year than those who did not (p-value<.05). However, when focusing specifically on part-time students, there was no statistical difference in college-level math completion between part-time students who had taken developmental math and those who did not take developmental math (p-value<.05).

The patterns are similar for writing. Compared to math, a greater percentage of students complete college-level English within their first year, but this percentage is lower for part-time students and those who enrolled in developmental writing or reading. Different from math, both full-time and part-time students who have taken developmental writing or reading coursework are statistically less likely to complete college-level English within their first year (p-value<.05).

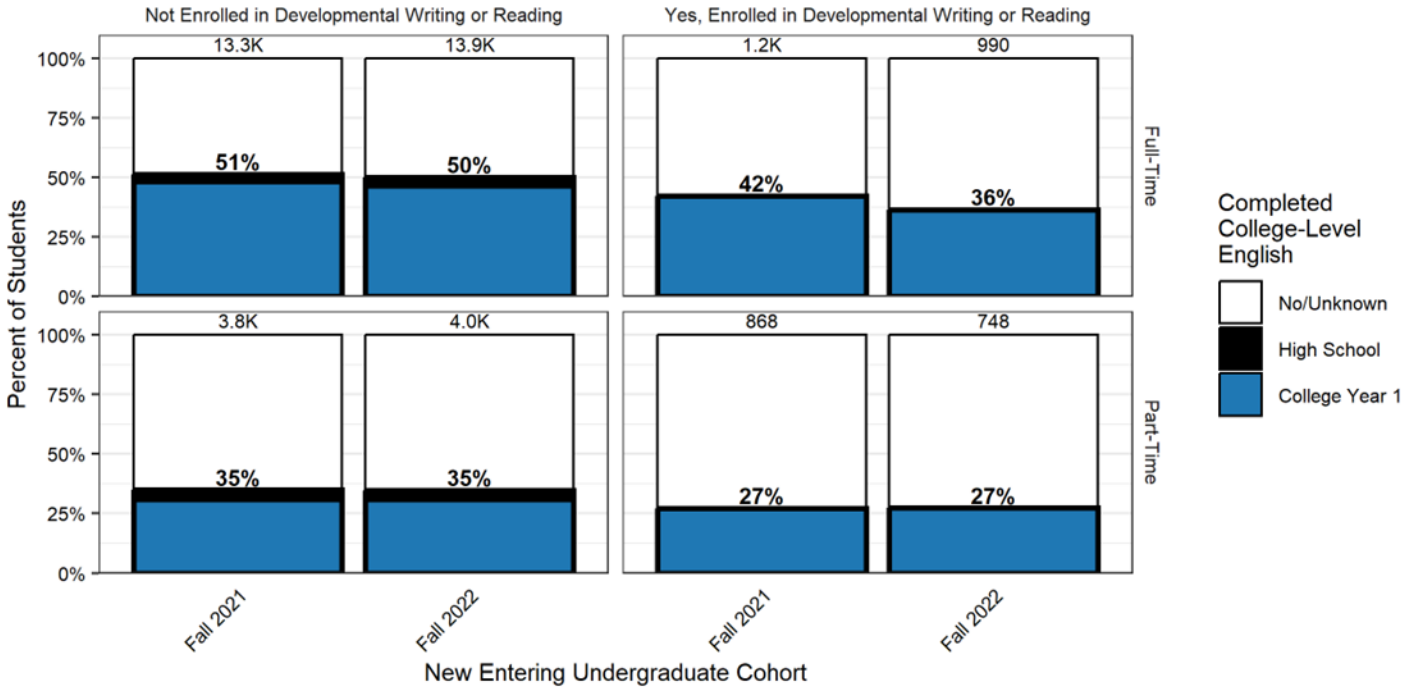
An analysis for students completing college-level coursework within their first two years was completed. While rates were higher, patterns were similar with completion of college-level courses low.

Figure 28: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and Cohort



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Figure 29: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and Cohort

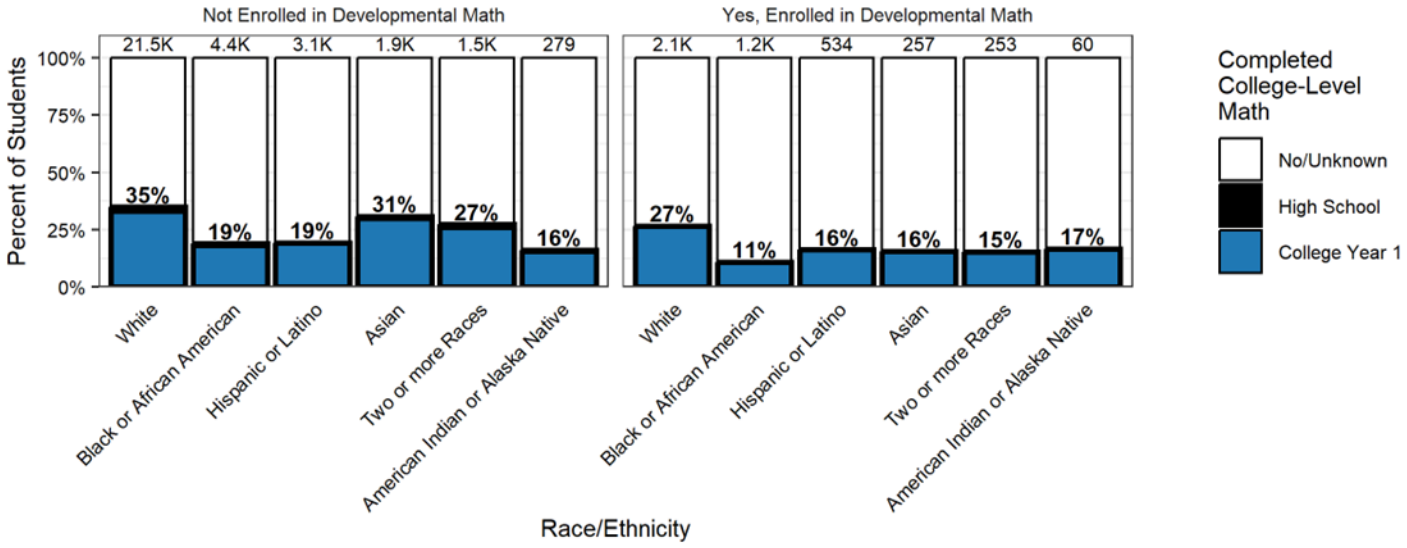


Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

There are further disparities by race/ethnicity in college-level course completion (Figure 30; Figure 31). Among students who enrolled in developmental math, those who identify as Black/African American, Hispanic or Latino, two or more races, or American Indian/Alaska Native were less likely than their non-group counterparts to complete college-level math within their first year of enrollment (p-value<.05). White students enrolled in developmental math were more likely than students of color to complete college math. For Asian students, there was no statistically significant difference with non-Asian students in college math completion. Black developmental education students in particular—who, as explained above, are more likely to enroll in developmental education in the first place— complete college-level math within their first year less than half as often as White students (11% compared to 27%). The data also show similar racial disparities among students who did *not* enroll in developmental math, with White students more likely to pass college level math and no statistically significant difference for Asian students.

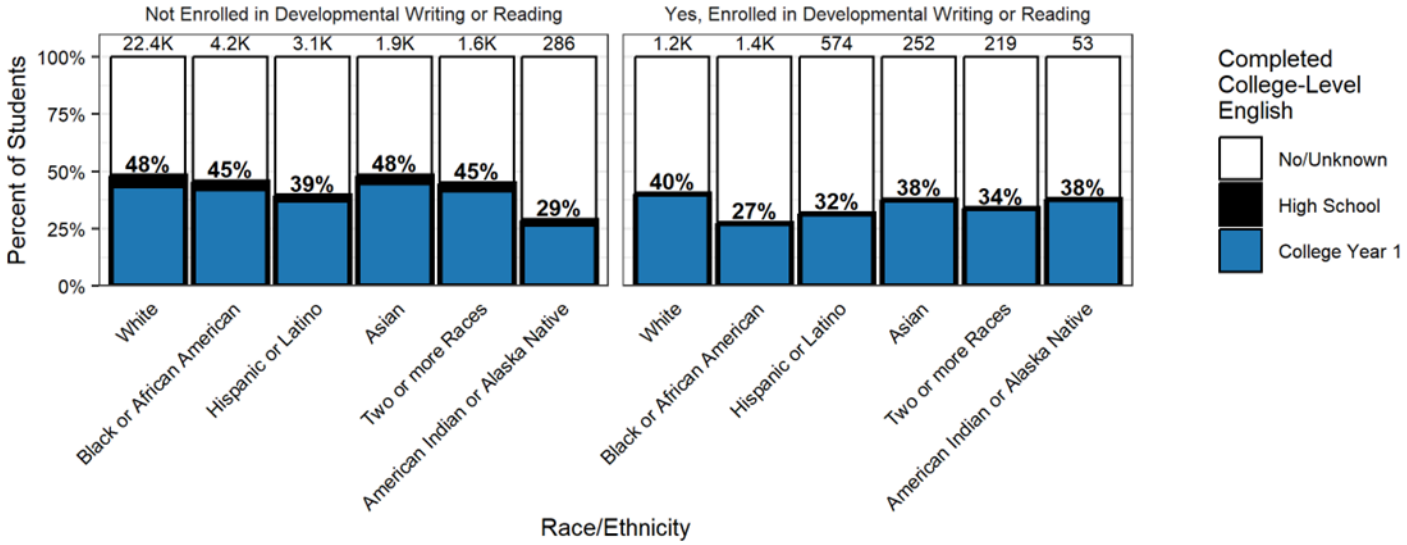
The disparities are slightly different for students enrolled in developmental writing or reading courses and college-level English course completion. Among students who are enrolled in developmental writing or reading coursework, those who identify as White were more likely to complete English college-level coursework than students of color (p-value<.05). On the other hand, Black/African American students enrolled in developmental writing or reading coursework were less likely to complete college-level English than non-Black/African students (p-value<.05). For all other race/ethnicity groups, there was no statistically significant difference.

Figure 30: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and Race/Ethnicity, Fall 2021 Cohort



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable. Groups with less than 10 individuals in a category are not displayed.

Figure 31: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and Race/Ethnicity, Fall 2021 And Fall 2022 Cohorts



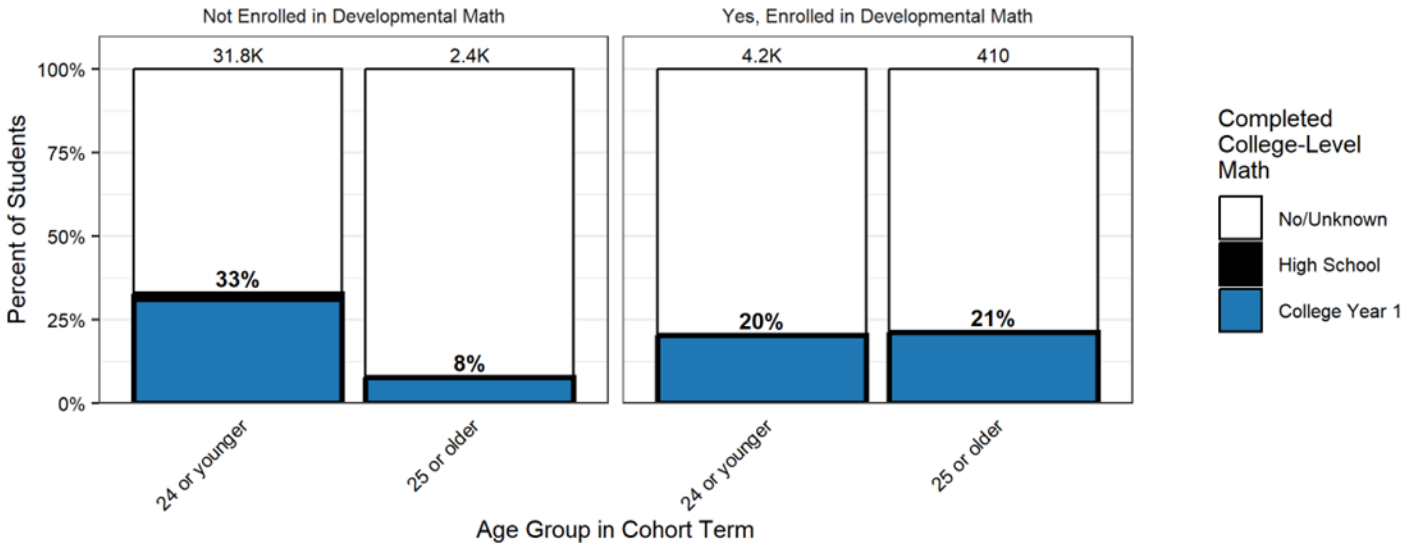
Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable. Groups with less than 10 individuals in a category are not displayed.

The patterns of college-level course completion differ between traditionally aged postsecondary students and adult students (Figure 32; Figure 33) When focusing on college-level math completion, we found students aged 24 and younger who are enrolled in developmental math coursework are less likely to complete college-level math in year 1 than students who are not

enrolled in developmental math (p-value<.05). Interestingly, students above age 25 who were enrolled in developmental math were more likely to complete college-level math than students not enrolled in development math (p-value<.05). This could be a result of those students delaying their enrollment in math coursework until later in their degree program, simply avoiding all math classes, or enrolling in programs that do not require math; this is possible due to a logic course fulfilling the math general education requirement at Minnesota State System institutions. In addition, many students who are enrolled in sub-baccalaureate certificates that don't require college-level math and English are placed into developmental education courses to fulfill minimum math and writing competencies that are below college-level. However, rates for all adult students are very low.

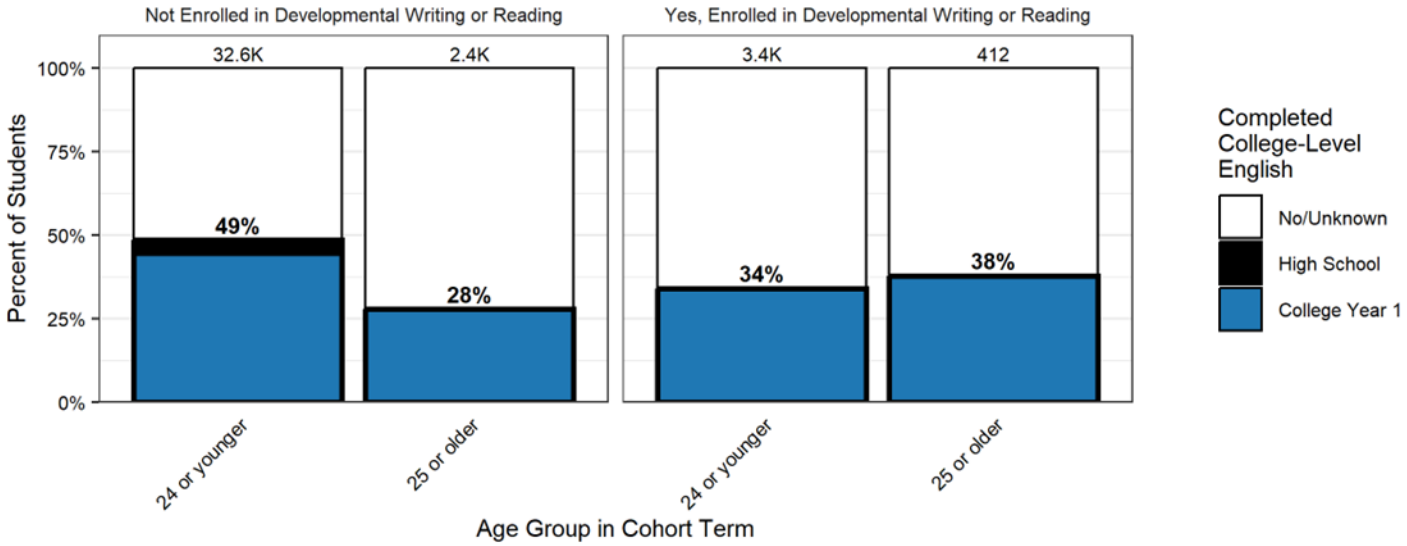
Again, English success rates are higher than math across the board, though patterns are similar. Students over age 25 who enrolled in developmental writing or reading were more likely to go on to successfully complete college-level English than those who were not enrolled in developmental writing or reading (p-value<.05). For the students aged 24 and younger and enrolled in developmental writing or reading, they were less likely to complete college-level English than those not enrolled (p-value<.05).

Figure 32: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and Age Group, Fall 2021 And Fall 2022 Cohorts



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Figure 33: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and Age Group, Fall 2021 And Fall 2022 Cohorts



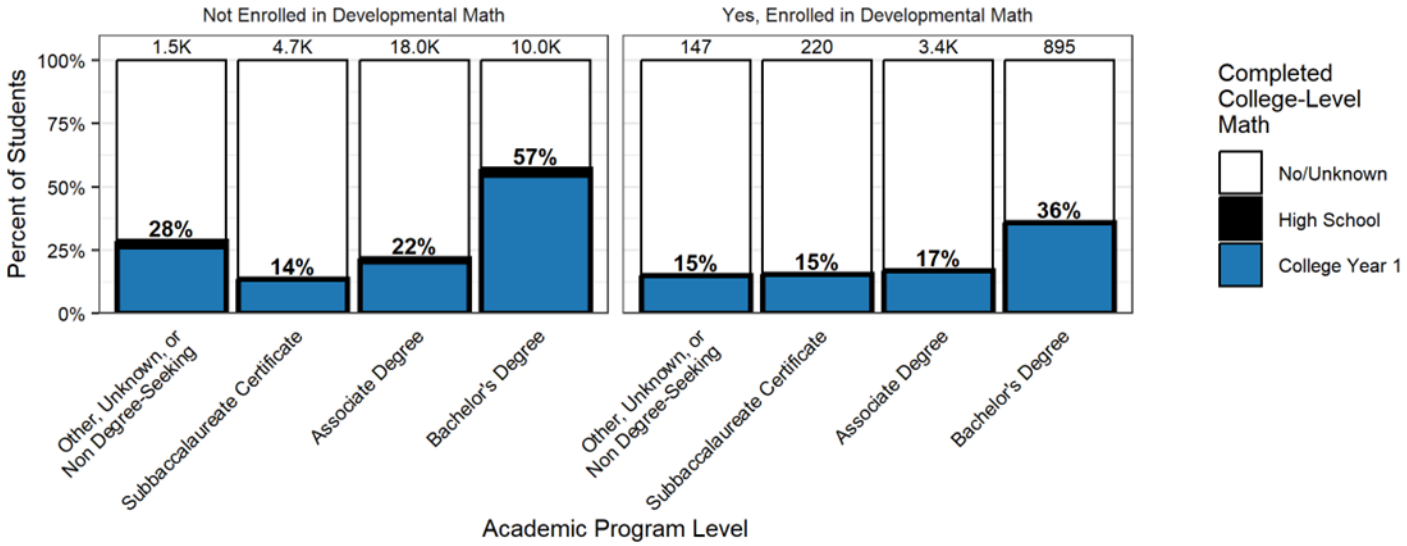
Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Certificate-program enrollment is associated with lower rates of college-level course completion, likely because many certificates do not require college-level math or college-level English (Figure 34; Figure 35). When certificate-seekers enroll in developmental math, they complete it at similar rates to those seeking associate degrees. Reading/writing shows somewhat different patterns: certificate-seekers who enroll in developmental writing or reading complete college-level English at lower rates than Associate-seekers (p-value<.05).

Those certificate seekers who do not enroll in developmental Math and/or English complete college-level coursework in those disciplines at much lower rates than students at other program levels (p-values<.05); it is likely that they are simply not enrolling in any math or writing courses at any level during their first year.

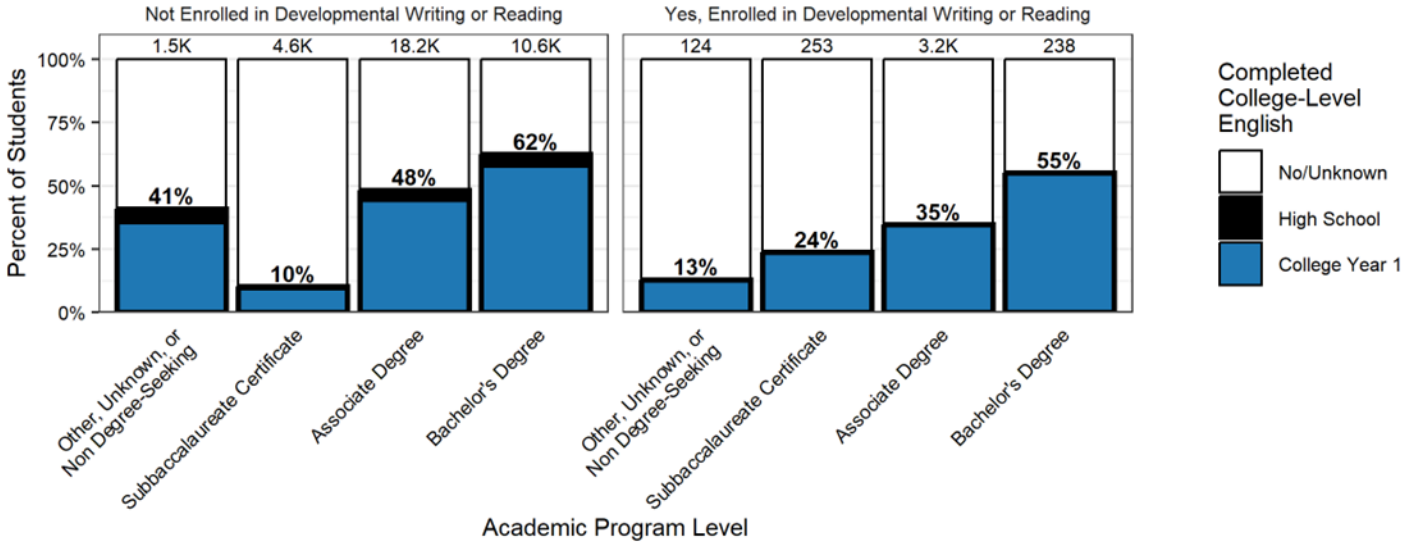
It is also worth noting that bachelor's degree seekers complete college-level math and English at the highest rates; these are university (rather than community college) students. University students have met admissions requirements and are, as a group, demographically different from community college students.

Figure 34: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and Program Level, Fall 2021 And Fall 2022 Cohorts



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. Program levels are based on each student's highest declared program level in their cohort term.

Figure 35: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and Program Level, Fall 2021 And Fall 2022 Cohorts

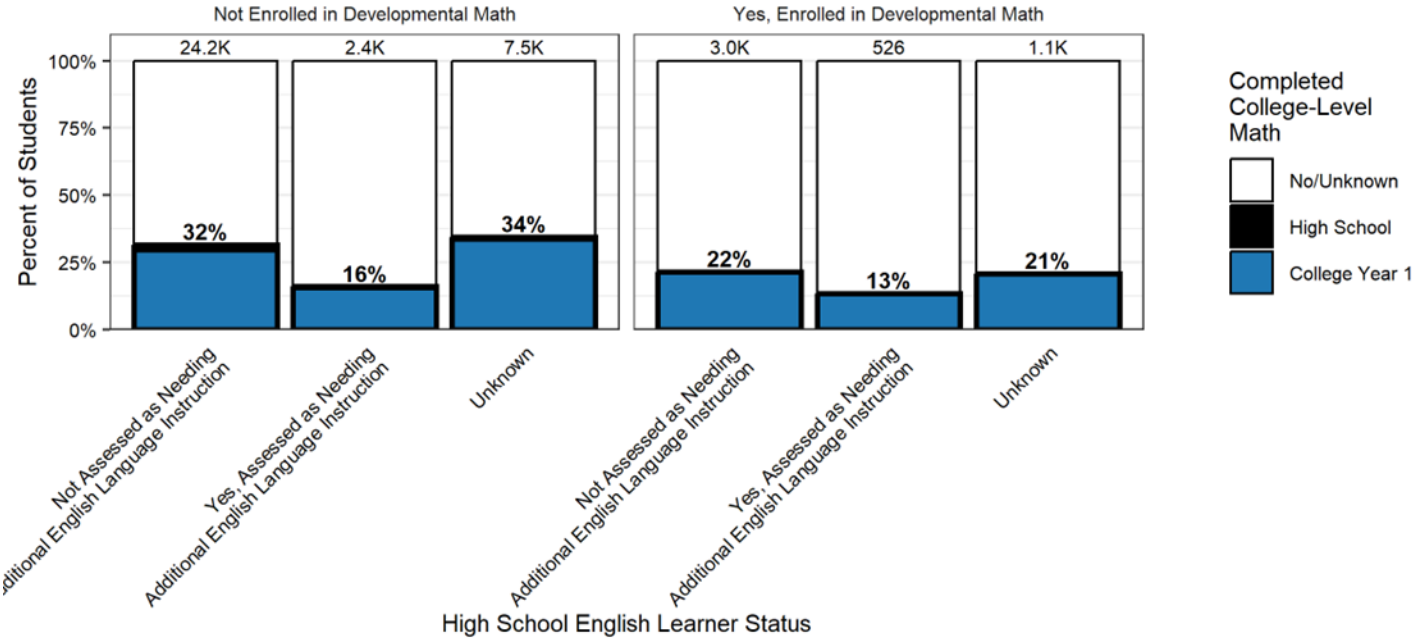


Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. Program levels are based on each student's highest declared program level in their cohort term.

Students assessed during high school as needing additional English language instruction are also less likely to complete college-level coursework within their first year compared to other students

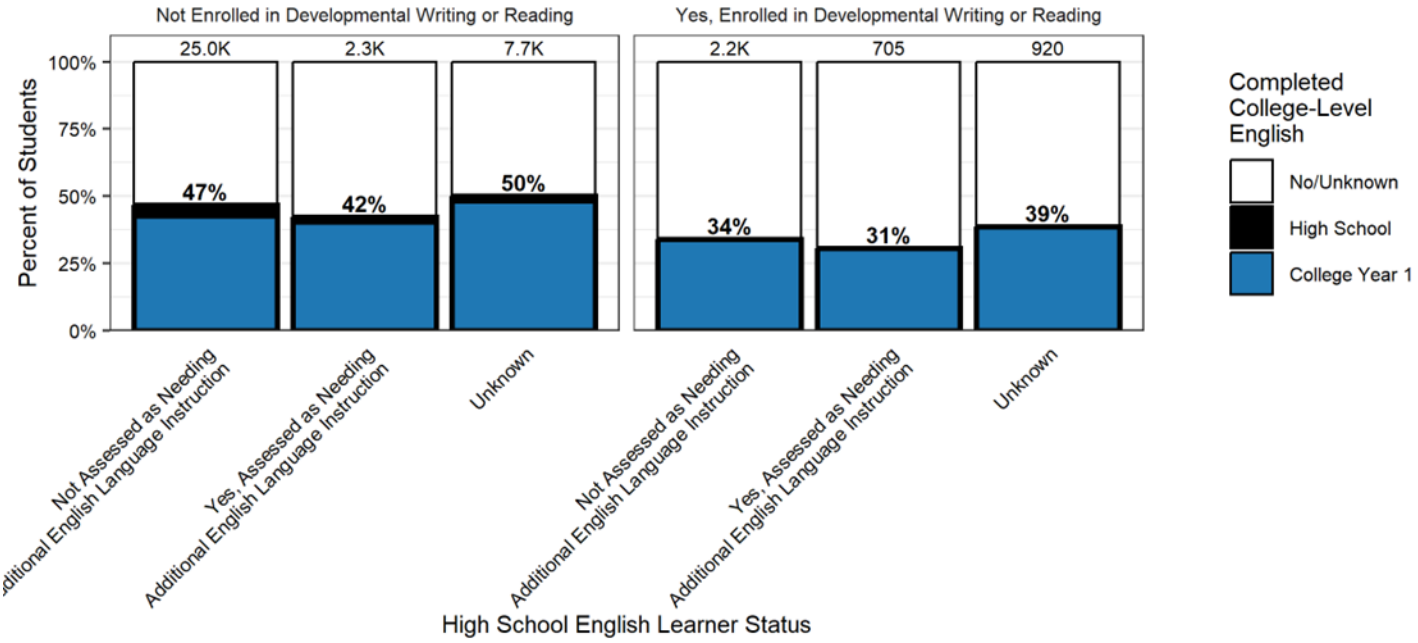
(Figure 36; Figure 37). The difference is statistically significant for college-level math (p-value<.05), but not college-level English.

Figure 36: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and H.S. English Learner Status, Fall 2021 And Fall 2022 Cohorts



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

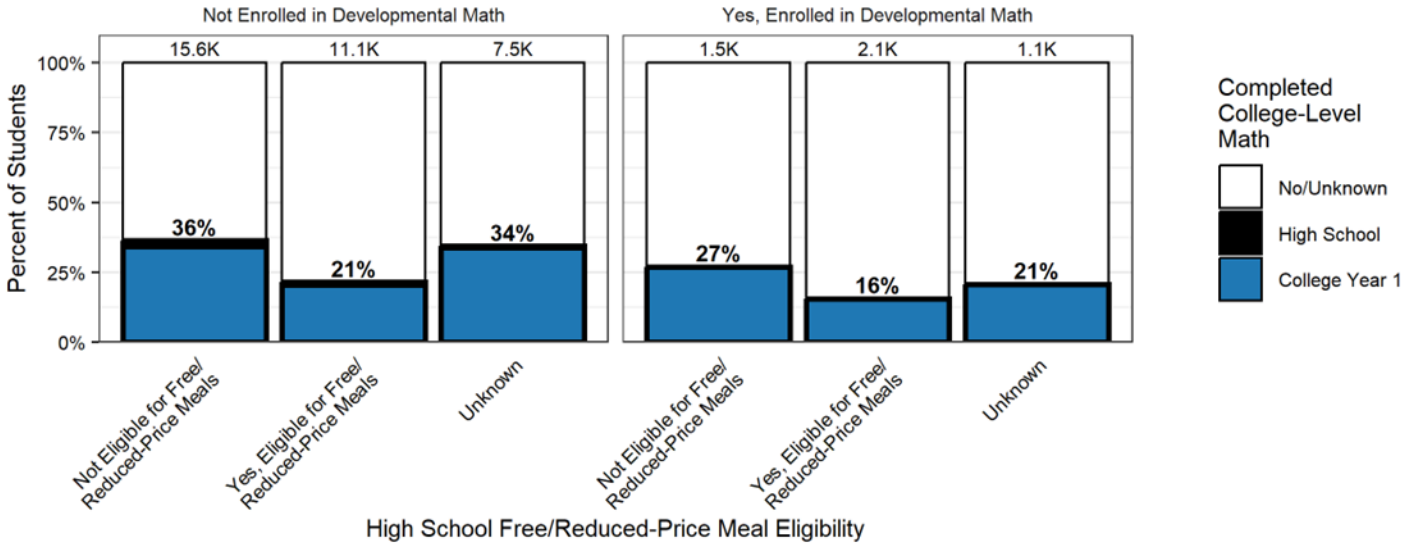
Figure 37: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and H.S. English Learner Status, Fall 2021 And Fall 2022 Cohorts



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Students who were eligible for free/reduced-priced meals during high school also complete college-level coursework within their first year at lower rates than other students (Figure 38; Figure 39). This is true among those who enrolled in developmental education and those who did not (p-value<.05).

Figure 38: Minnesota State New Entering Students Completing College-Level Math Within One Year, By Developmental Education Enrollment Status and Free/Reduced-Price Meal Eligibility, Fall 2021 And Fall 2022 Cohorts



Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Figure 39: Minnesota State New Entering Students Completing College-Level English Within One Year, By Developmental Education Enrollment Status and Free/Reduced-Price Meal Eligibility, Fall 2021 And Fall 2022 Cohorts

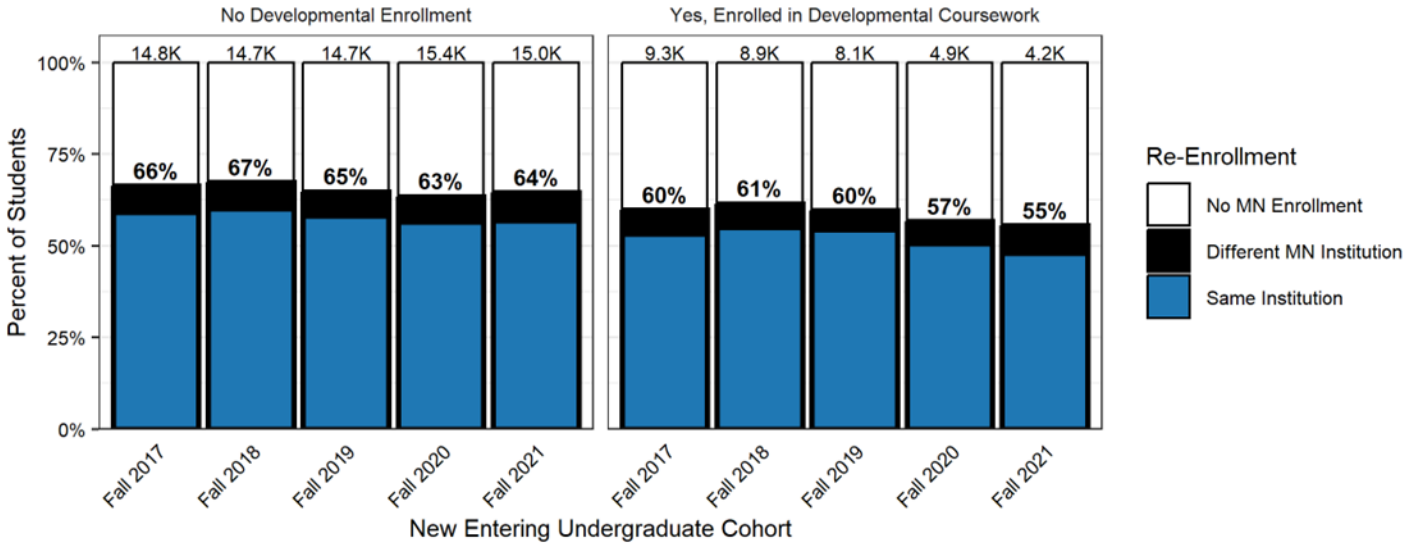
Source: MN SLEDS. Note: Identifies those who successfully completed one or more college-level courses at a MN public institution while in H.S. or within their first year of enrollment. FT students are those who enrolled in 12+ credits in their fall cohort term. Groups with less than 10 individuals in a category are not displayed.

Student Persistence

We examined the degree to which different students persisted in their education, meaning re-enrolled for a second fall semester, either at the same institution or a different institution in

Minnesota. Students who enroll in developmental education are less likely than others to persist to a second fall semester (Figure 40). Additionally, fall-to-fall persistence rates for developmental education students have declined over time, from 60% for the Fall 2017 cohort to 55% for the Fall 2021 cohort. Observationally, rates among students not enrolled in developmental education have seen declines some years but have generally been more stable. It should be noted that the low persistence rates for students who enroll in developmental education does not include students who were placed into developmental education courses but did not enroll in developmental education courses. To fully understand the impact of developmental education placement on persistence and other student success metrics, research should be done on the success of students who were placed into developmental education but did not enroll in developmental coursework in their first year. For example, persistence rates for Black/African American and Latino students who were and were not enrolled in developmental education are not dramatically different. Because the data does not discern the persistence rates for students placed into developmental education who did not enroll in developmental courses, we are not able to discern persistence rate of all students placed into developmental education.

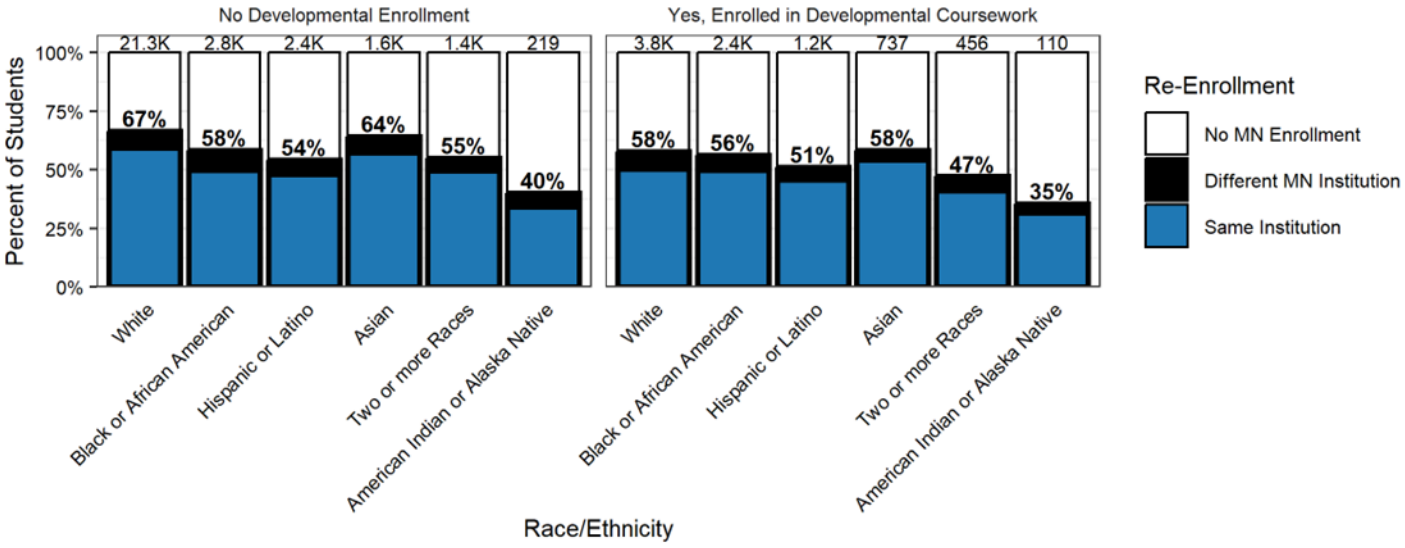
Figure 40: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and Cohort



Source: MN SLEDS. Note: Persistence is measured as of the fall semester one year after each student's fall start. Groups with less than 10 individuals are not displayed.

Persistence rates also vary by race. The disparities between Black/African American and White students are smaller than we observed in other metrics, but the disparity between American Indian/Alaska Native students and everyone else is larger (Figure 41).

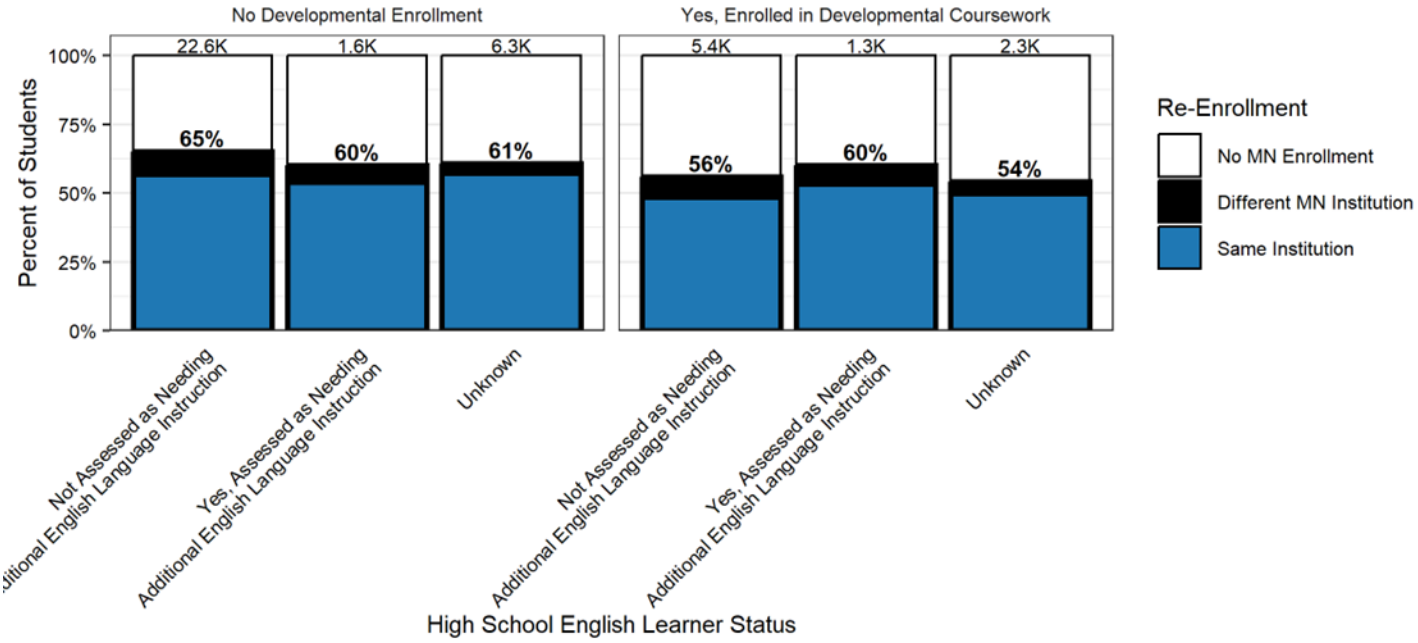
Figure 41: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and Race/Ethnicity, Fall 2020 And Fall 2021 Cohorts



Source: MN SLEDS. Note: Persistence is measured at the fall semester one year after each student's fall cohort. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable. Any groups with less than 10 individuals are not displayed.

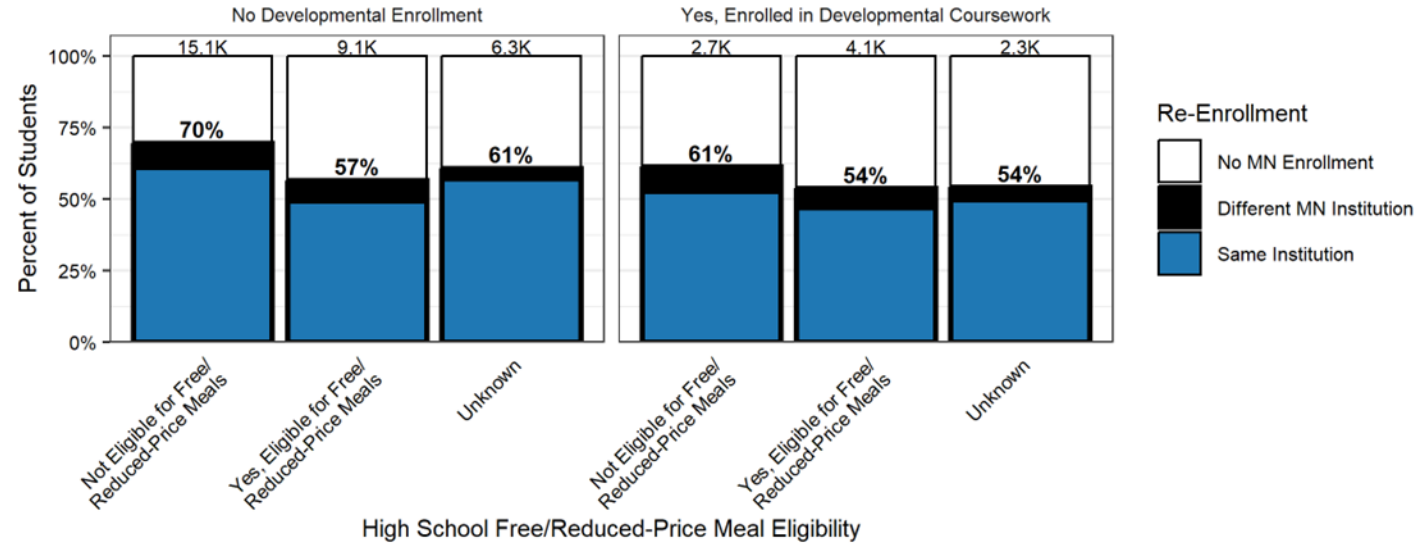
Persistence rates for students who received English language instruction in high school are the same between those who enrolled in developmental education and those who did not enroll in developmental education. This finding suggests that the persistence rates for students who received English language instruction in high school are not affected by enrollment in developmental education. However, this data does not reflect the persistence rates of students who were placed into developmental education and did not enroll in developmental education courses (Figure 42). Students who were eligible for free/reduced-price meals during high school were less likely to persist to a second year than students who did not qualify for free/reduced lunch meals. In addition, students who were eligible for free/reduced lunch and enrolled in developmental education were among those least likely to persist to a second year (Figure 43).

Figure 42: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and H.S. English Learner Status, Fall 2020 And Fall 2021 Cohorts



Source: MN SLEDS. Note: Persistence is measured as of the fall semester one year after each student's fall start. Groups with less than 10 individuals are not displayed.

Figure 43: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and Free/Reduced-Price Meal Eligibility, Fall 2020 And Fall 2021 Cohorts

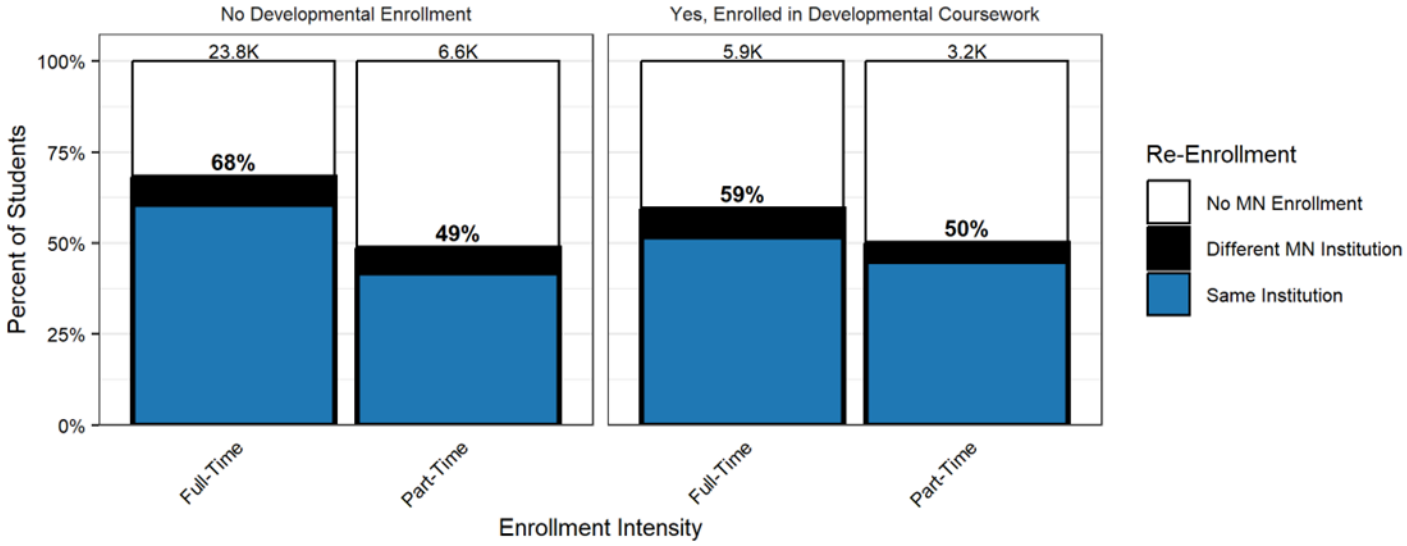


Source: MN SLEDS. Note: Persistence is measured as of the fall semester one year after each student's fall start. Groups with less than 10 individuals are not displayed.

Part-time students (who enroll in fewer than 12 credits during their first semester) are less likely to persist than full-time students (Figure 44). Part-time students who enroll in developmental

education are about equally as likely to persist as those who do not. Among full-time students, however, those enrolled in developmental education persist much less often than those not enrolled in developmental education.

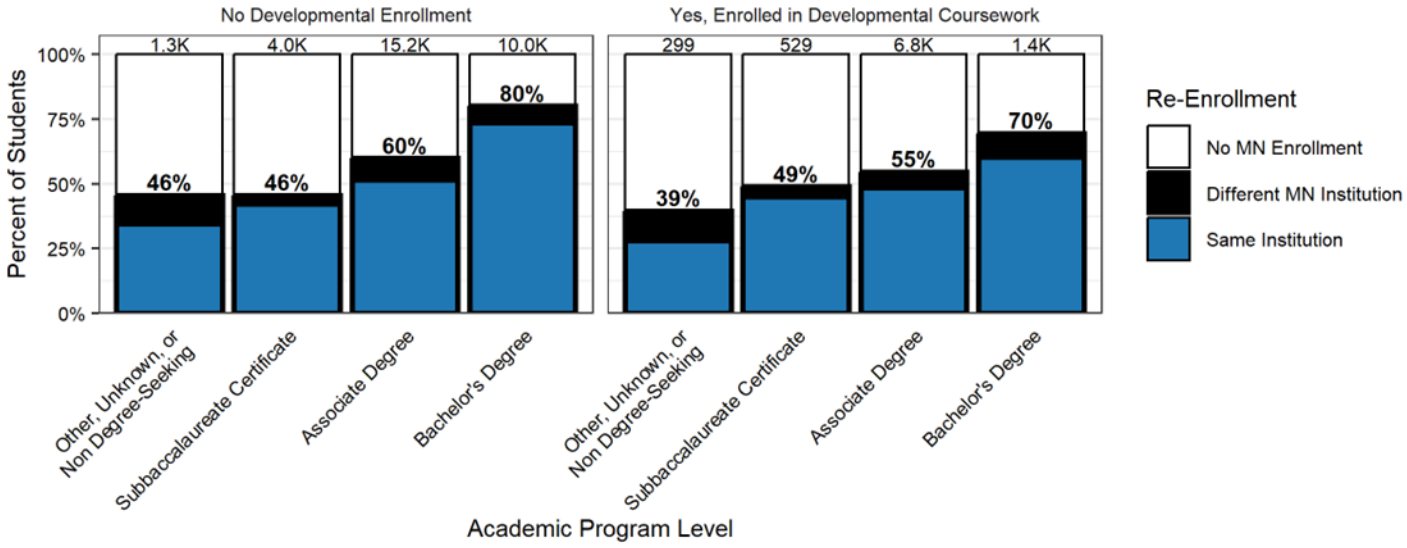
Figure 44: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and First-Semester Enrollment Intensity, Fall 2020 And Fall 2021 Cohorts



Source: MN SLEDS. Note: Persistence is measured as of the fall semester one year after each student's fall start. Groups with less than 10 individuals are not displayed.

Program level is also linked to persistence (Figure 45). Those enrolled in bachelor's degree programs (i.e., university students) persist at the highest rates, and those who are non-degree-seeking or certificate students persist at the lowest rates, which may be related to the fact that their goals may not require more than one year of education. At all program levels except certificates, those who enroll in developmental education persist at lower rates than those who do not.

Figure 45: Minnesota State New Entering Students Who Persisted to the Next Fall Term, By Developmental Education Enrollment Status and Program Level, Fall 2020 And Fall 2021 Cohorts



Source: MN SLEDS. Note: Persistence is measured as of the fall semester one year after each student's fall start. Groups with less than 10 individuals are not displayed.

Student Graduation

Finally, we examined the extent to which enrollment in developmental education correlated with graduation rates. We measured graduation at all program levels within six years of students' first semester, which is recognized as a measure for assessing graduation rates. We counted each graduate once at their highest degree level completed within those six years, and included completions at any institution in Minnesota, even if a student transferred.

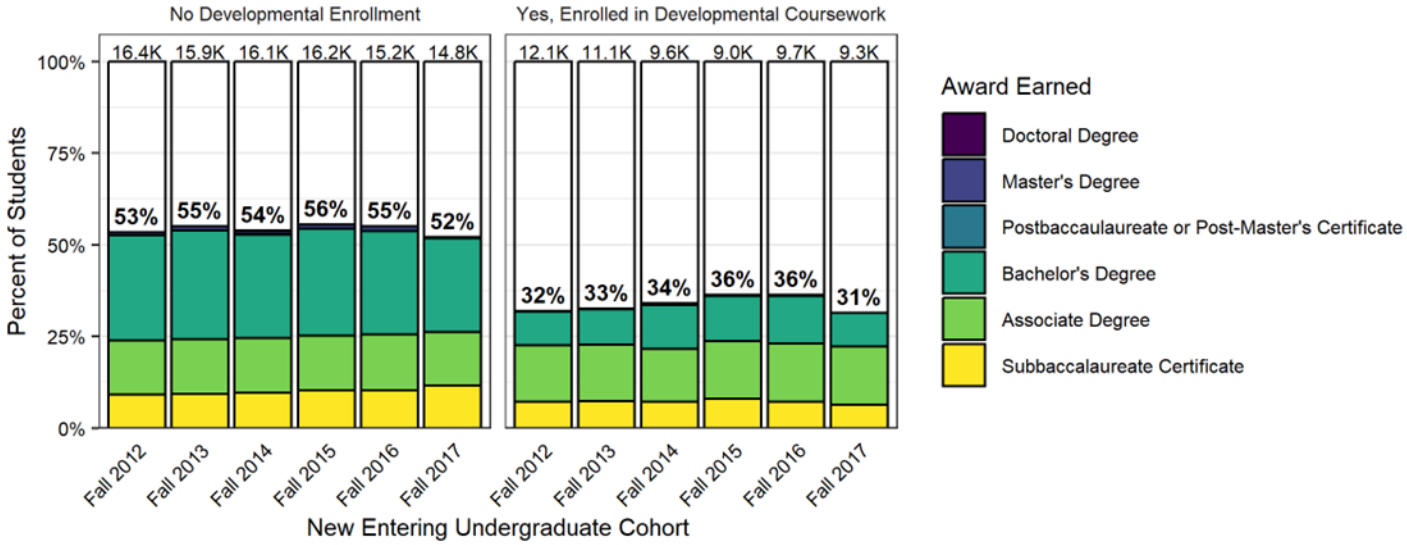
It is important to note that because we are looking at six-year graduation rates, we are analyzing data for students who began college between 2012 and 2017, which covers a time frame before Minnesota State implemented significant developmental education reforms. It will be valuable for the Minnesota State System to track these metrics into the future, so that they can see whether graduation rates change for cohorts that participated in developmental education under different conditions.

Overall, students who enrolled in developmental education from 2012 to 2017 graduated at significantly lower rates than those who did not (Figure 46). This is primarily due to a large difference in bachelor's degree completion. Both groups—students enrolled and not enrolled in developmental coursework—had relatively similar percentages of students completing an associate degree or certificate (as their highest award) within six years (22% of those enrolled in developmental education versus 25% of others, across six cohorts). However, those who participate in developmental education complete bachelor's degrees at much lower rates than those who do not (11% of those enrolled in developmental education versus 28% of others).

For students who start at Minnesota State System community colleges, those who enroll in developmental education complete *all* award levels at lower rates than non-developmental education students. Among students who start at Minnesota State System universities, students who participate in developmental education complete certificates and associate degrees—again,

as their maximum award attained—at higher rates than do their peers who do not enroll in developmental coursework, and complete bachelor's degrees at lower levels. It could be the case that some of those associate degree and certificate completers are still enrolled after six years, and that they require more time to complete a bachelor's degree. Given that developmental education students are less likely to earn a bachelor's degree in 6 years than students not enrolled in developmental education, enrollment in developmental education may have a short-term effect on student earnings when compared to non-developmental education students. These differences in bachelor's degree completion between developmental education and non-developmental education students may be connected to the extra semesters needed for students to complete developmental sequences before they can begin college-level coursework. Those extra semesters make it more difficult for students placed into developmental coursework to complete a bachelor's degree within six years.

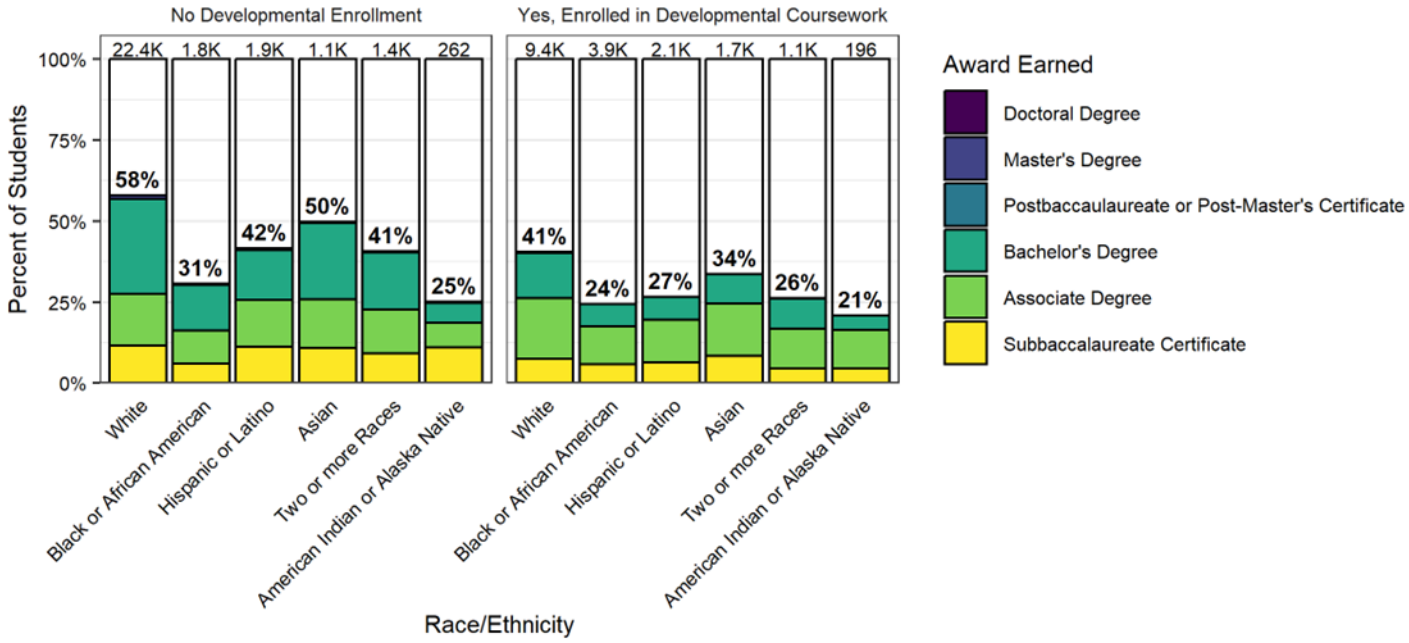
Figure 46: Percent of Minnesota State New Entering Students From 2012-2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and Cohort



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

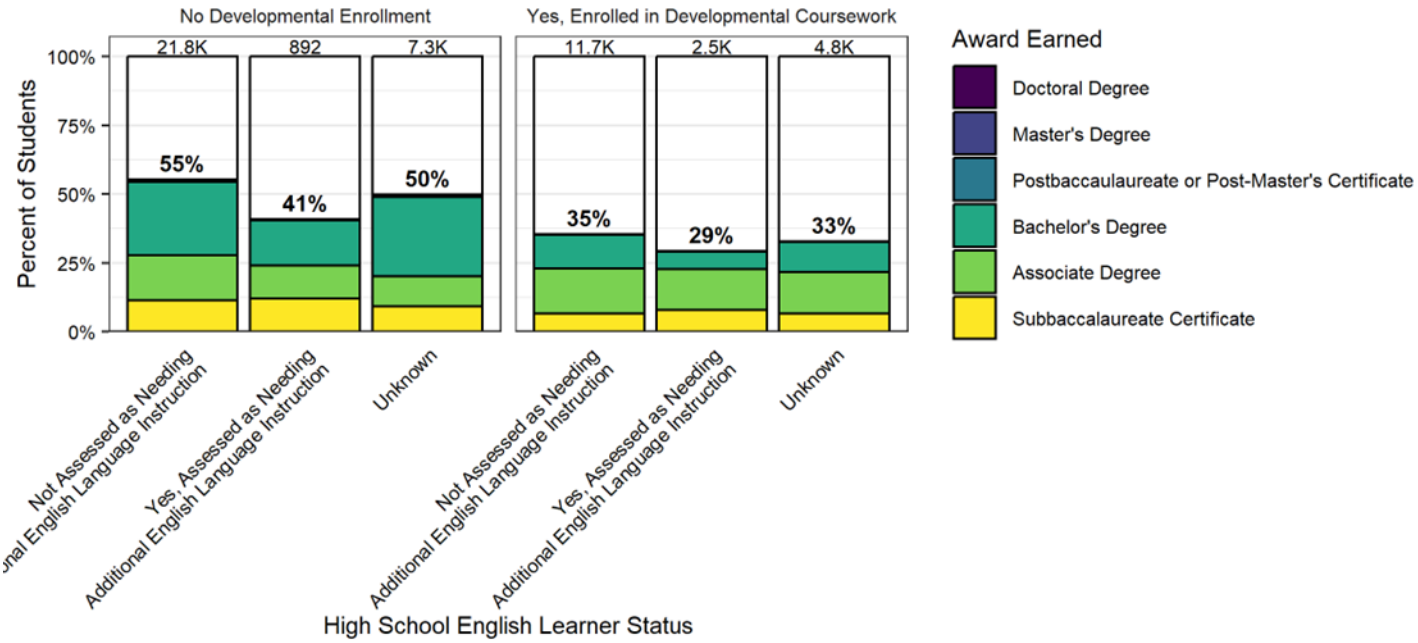
There are significant disparities in graduation rates by race/ethnicity (Figure 47), English learner status (Figure 48), and free/reduced-price meal eligibility (Figure 49), both among students who enroll in developmental education and among those who do not. Differences follow the same trends as observed in enrollment, college-level course completion, and persistence where students of color are less likely to reach success milestones. It is important to keep in mind that these students are more likely to be placed in and enroll in developmental education, so their lower completion rates have a greater impact on those populations than White students.

Figure 47: Percent of Minnesota State New Entering Students in Fall 2016 And Fall 2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and Race/Ethnicity



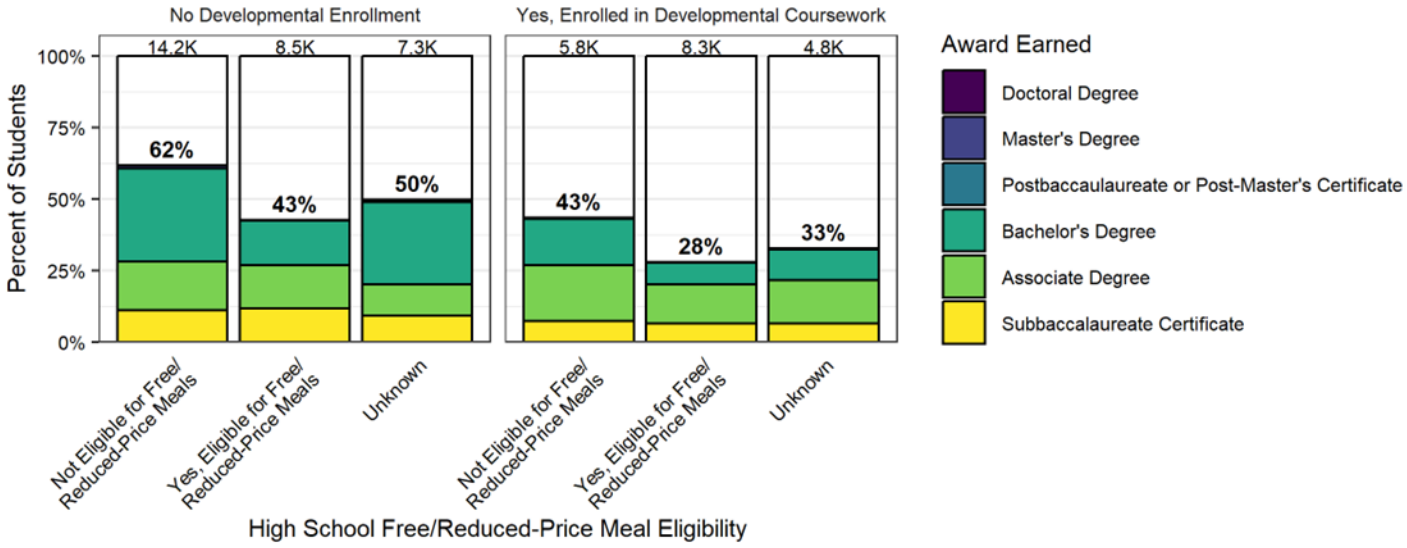
Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable. Any groups with less than 10 individuals are not displayed.

Figure 48: Percent of Minnesota State New Entering Students from Fall 2016 And Fall 2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and High School English Learner Status



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

Figure 49: Percent of Minnesota State New Entering Students in Fall 2016 And Fall 2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and Free/Reduced-Price Meal Eligibility



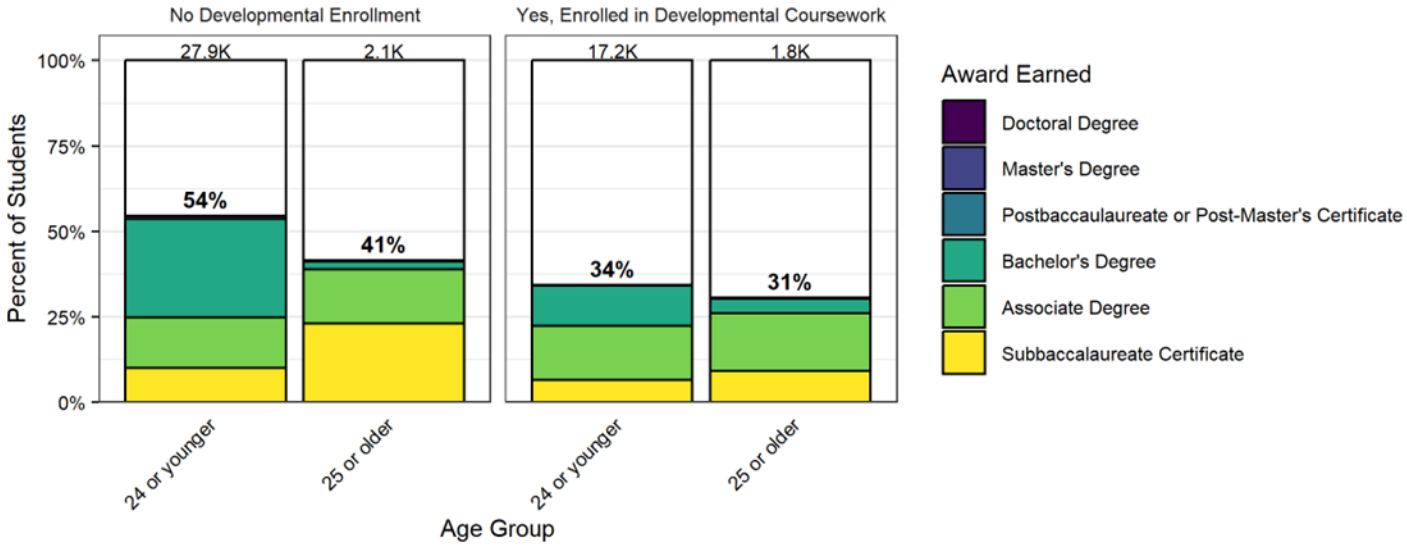
Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

Traditional-aged students (those who start college at age 24 or younger) are also more likely to complete a degree or certificate within six years than older students (

Figure 50). The differences are greater among students who are *not* enrolled in developmental coursework, perhaps due to their different profiles; those under age 25 are more likely to attend a university and complete a bachelor's degree; those age 25 and over are more likely to attend a community college and complete a certificate.

Among students who do enroll in developmental education, those who start college at age 25 or older are less likely to complete a bachelor's degree and more likely to complete a certificate than younger students (p-value<.05).

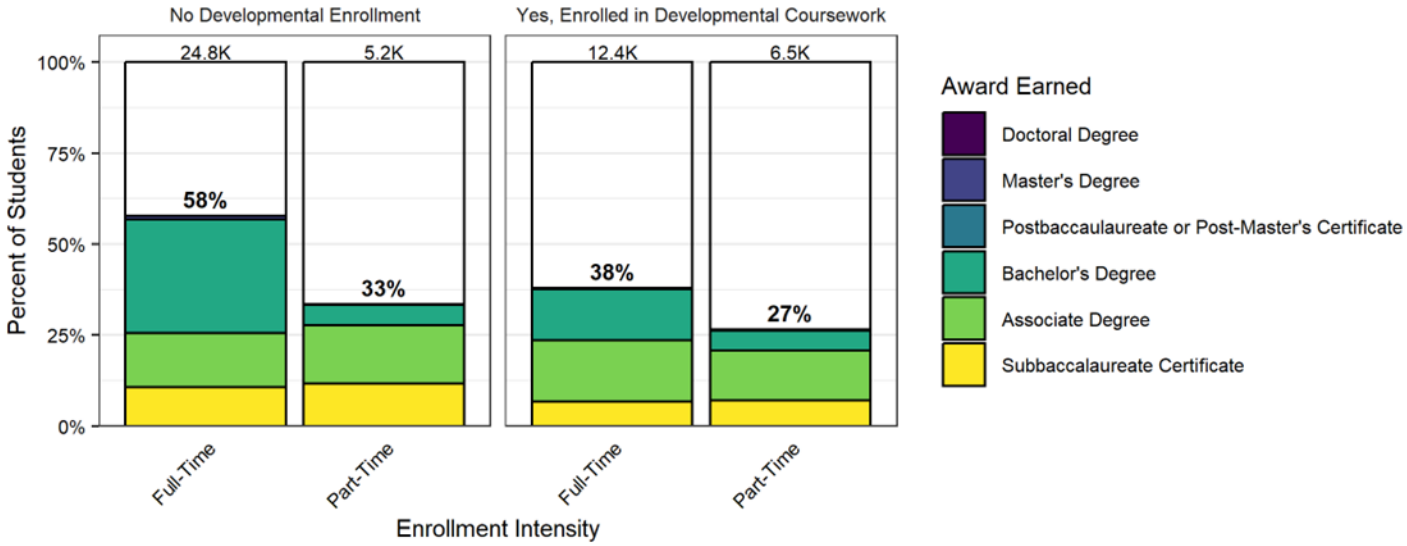
Figure 50: Percent of Minnesota State New Entering Students from Fall 2016 And Fall 2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and Age



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

Overall, graduation rates for those who attend part-time during their first semester are lower than for those who attend full-time (Figure 51). For students attending part-time, the graduation rate differences between those who enroll in developmental education and those who do not are relatively modest; rates are low for both groups. For those attending full-time, there is a significant difference in graduation rates based on developmental enrollment status, almost entirely at the bachelor's level. Again, this may reflect how difficult it is to complete a bachelor's degree in six years for students who take additional developmental coursework, even if they attend full-time.

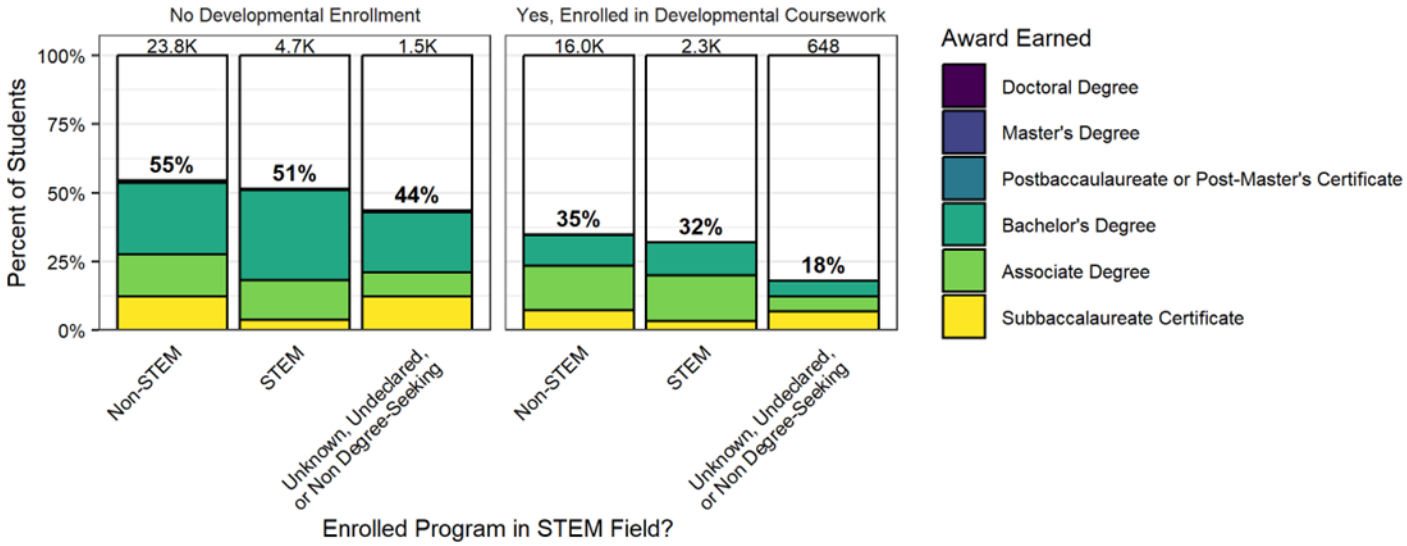
Figure 51: Percent of Minnesota State New Entering Students from Fall 2016 And Fall 2017 Who Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status and First-Semester Enrollment Intensity



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

A major part of this study is to understand how developmental education placement can potentially impact education and employment opportunities for Minnesotans. Majoring in a Science, Technology, Engineering, or Math (STEM) field may return greater workforce returns for students. However, access to STEM credentials and ultimately STEM careers may be impacted by whether students have immediate access to credit-bearing coursework in math. Therefore, to see how graduation rates interact with students' programs of study, we analyzed graduation rates based on students' declared majors during their cohort semester, and identified whether those majors were in STEM fields, as defined by the U.S. Department of Homeland Security. Please note that "STEM" students here are those who declared a STEM major in their first semester, not those who graduated in a STEM field. Within STEM majors, there is a greater disparity in bachelor's degree attainment based on developmental education enrollment than there is in other disciplines (Figure 52). Since some developmental math sequences require multiple semesters to complete, and STEM degrees often require multiple semesters of college-level math, it is perhaps not surprising that developmental education students aiming to complete a degree in a STEM field rarely finish a bachelor's degree within six years.

Figure 52: Percent of Fall 2016 And Fall 2017 Cohorts Graduated Within 6 Years of Entry, By Developmental Education Enrollment Status And STEM/Non-STEM Academic Program



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included.

Credit Accumulation

Credit accumulation is a rough measure of cost; students who accumulate more credits by the time they graduate will, in general, end up spending more time in college and paying more for their degrees than those who accumulate fewer credits. We measured each student's total earned credits at the point of graduation, which means this metric only includes students who graduated, and it only includes credits successfully completed and accepted by the institution. Credits completed at a previous institution that were not accepted by the receiving institution are not included in this analysis. Students who did not complete their program are not included, nor are credits from courses that students failed or withdrew from. We measured each student's accumulated credits as of their highest degree earned within six years of starting. This means that, for example, students who earned an associate degree at a community college, then transferred to a university and completed a bachelor's degree are counted in the "bachelor's degree" column.

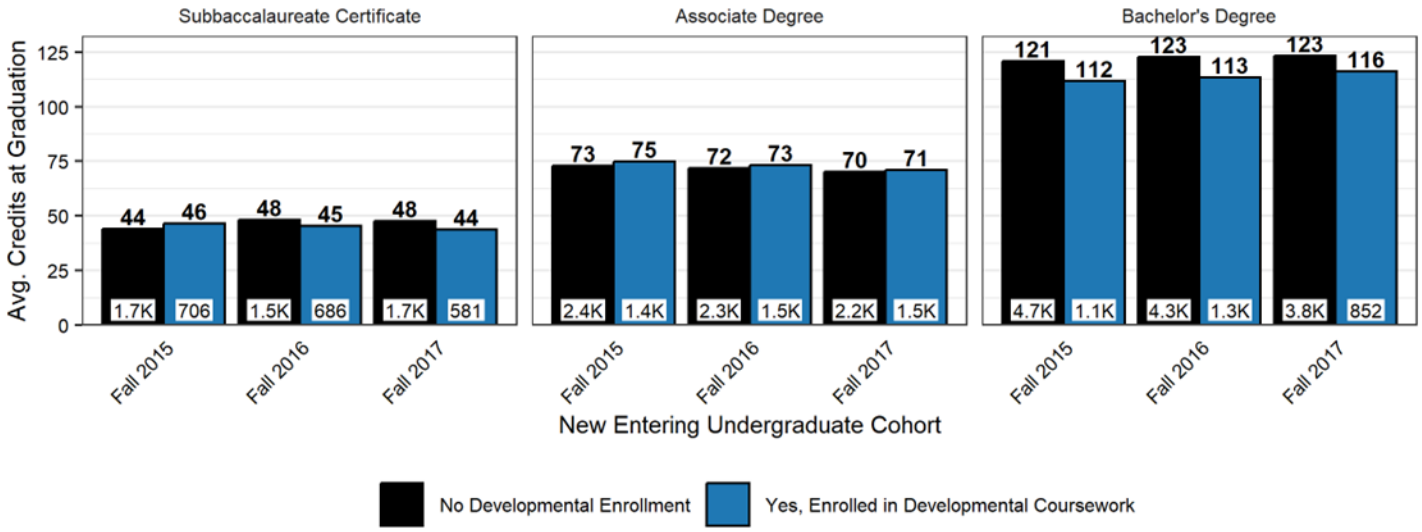
Contrary to what we expected, we found that students who enrolled in developmental education accumulated *fewer* credits by the time they graduated compared to other students, particularly at the bachelor's degree level, despite their additional developmental coursework (Figure 53). We tested this unexpected result for statistical significance and found that students who enroll in developmental education are indeed more likely to have accumulated fewer credits at the time of graduation than their peers who did not enroll in developmental education (p-value<.05). This counterintuitive finding is likely related to the fact that students who enroll in developmental coursework very rarely complete bachelor's degrees within six years. As a result, we do not have data on the credit accumulation of most students who enroll in developmental education. Additionally, developmental education students are more likely to be low-income (as observed in the Free/Reduced-price meal data), meaning that they may be more reliant, compared to other

students, on financial aid programs that keep them on a focused degree pathway through requirements about which coursework is financial-aid eligible.

We did find some differences in credit accumulation among credential completers based on race/ethnicity, age, English learner status, and first-semester enrollment intensity. When controlling for other factors, development education enrollment had a statistically significant relationship with accumulated credit hours for associate and bachelor's degrees, but not certificates. For associate degrees, students who enrolled in developmental coursework earned more student credit hours than students who did not. For bachelor's degrees, students who enrolled in development coursework earned less student credit hours than those not enrolled in development education courses (p-value<.05).

Students who attended more than one institution, or who changed majors within an institution, did accumulate more credits than those who maintained the same major at the same institution prior to graduation. When controlling for all factors, including major changes, a student enrolled in development education coursework earned fewer credits than a student who was not enrolled in development education (p-value<.05). This finding suggests that developmental education students who graduate in 6 years are not negatively affected financially by taking excess credits above and beyond those required for a credential.

Figure 53: Credits Accumulated at Graduation Within 6 Years of Postsecondary Entry by Developmental Education Enrollment Status for New Entering Minnesota State Students From 2015-2017.



Source: MN SLEDS. Note: Each student is counted only once at their highest award level earned within the specified time window. Awards from all institutions in MN SLEDS are included, as long as the student has accumulated credits at that institution.

Workforce Outcomes for Developmental Education Students

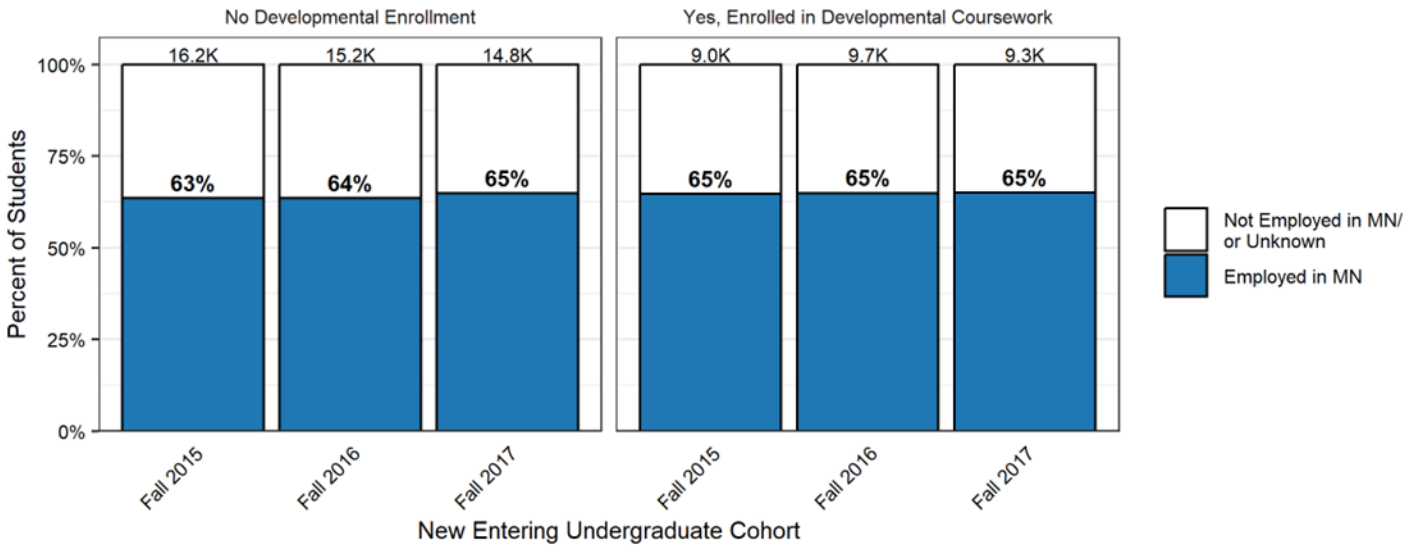
Using Unemployment Insurance data from the SLEDS database, we were able to analyze three workforce outcomes and identify how they vary by developmental education status as well as other student characteristics. At a single point in time six years after each student's college start date, we measured whether each student was employed in the state of Minnesota, their hours worked, and their wages.

Overall, we found that students who enrolled in developmental education are more likely to be employed in Minnesota than those who did not enroll in developmental education (Figure 54), and they worked a smaller numbers of hours (Figure 56). The lower hours could be because developmental education students either did not complete a credential or had not earned a credential. There were some disparities in employment by race/ethnicity, and students who did not graduate were less likely to be employed in Minnesota compared to those who earned an undergraduate certificate or degree. Women also work fewer paid hours than men, on average, regardless of their developmental education enrollment status (p-value<.05).

There are notable disparities in wages by developmental education status that also work in concert with race, age, gender, and socioeconomic background to shape students' workforce outcomes. Six years after entering college, those who enrolled in developmental education earned, on average, about $4.00 per hour less than those who did not (p-value<.05) (Figure 57). Wage differences by developmental education status occurred across White, Black and Asian races/ethnicities (p-value<.05) (Figure 58). Taken together, when controlling for each factor in a regression model, developmental education, age, gender and free/reduced-price meal status and educational attainment level are the statistically significant predictors of wages.

Employment

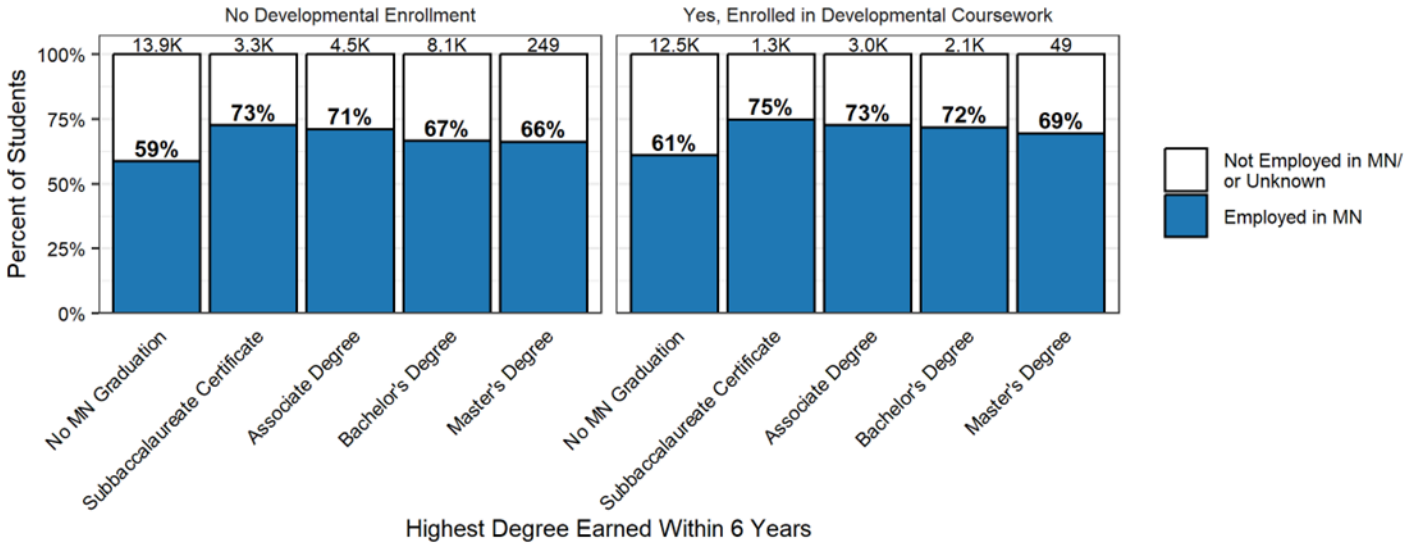
Figure 54: Percent of Minnesota State Students Employed in Minnesota 6 Years After Postsecondary Entry From 2015-2017, By Developmental Education Enrollment



Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota.

Students who did not earn any kind of degree or credential within six years were less likely to be employed in Minnesota than those who earned any kind of degree or certificate. Some of these students may have moved out-of-state, some may still be enrolled, and others are probably simply not working.

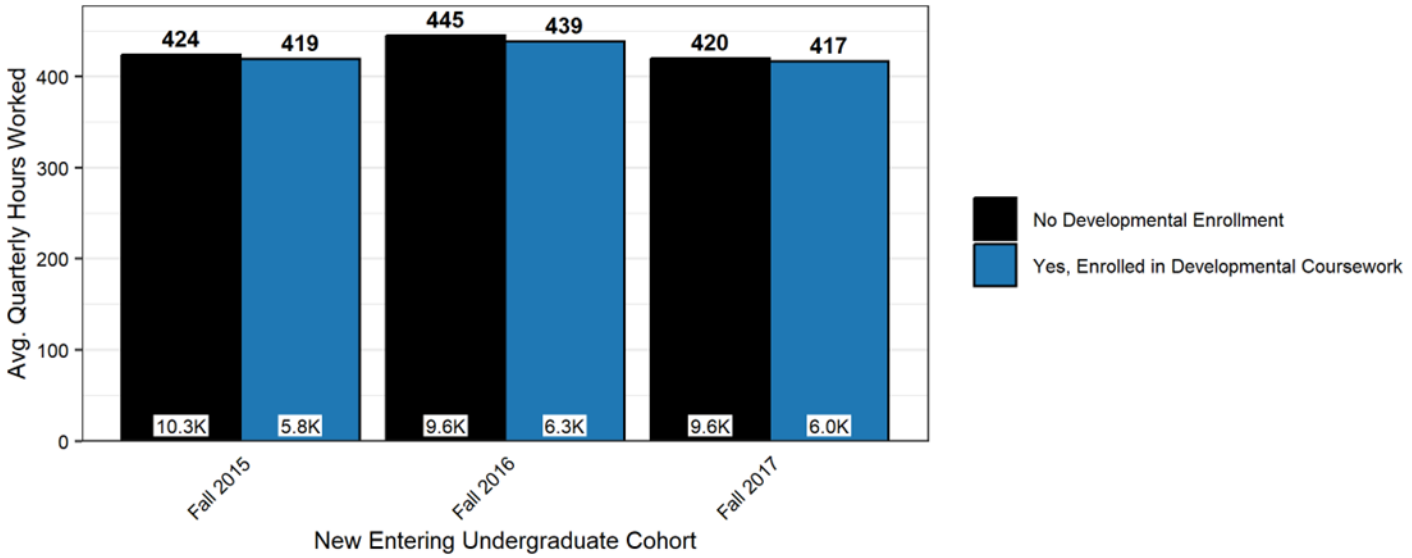
Figure 55: Percent of Minnesota State Students Employed in Minnesota 6 Years After Postsecondary Entry from Fall 2016 To Fall 2017, By Developmental Education Enrollment Status and Highest Degree Earned



Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota.

Hours Worked

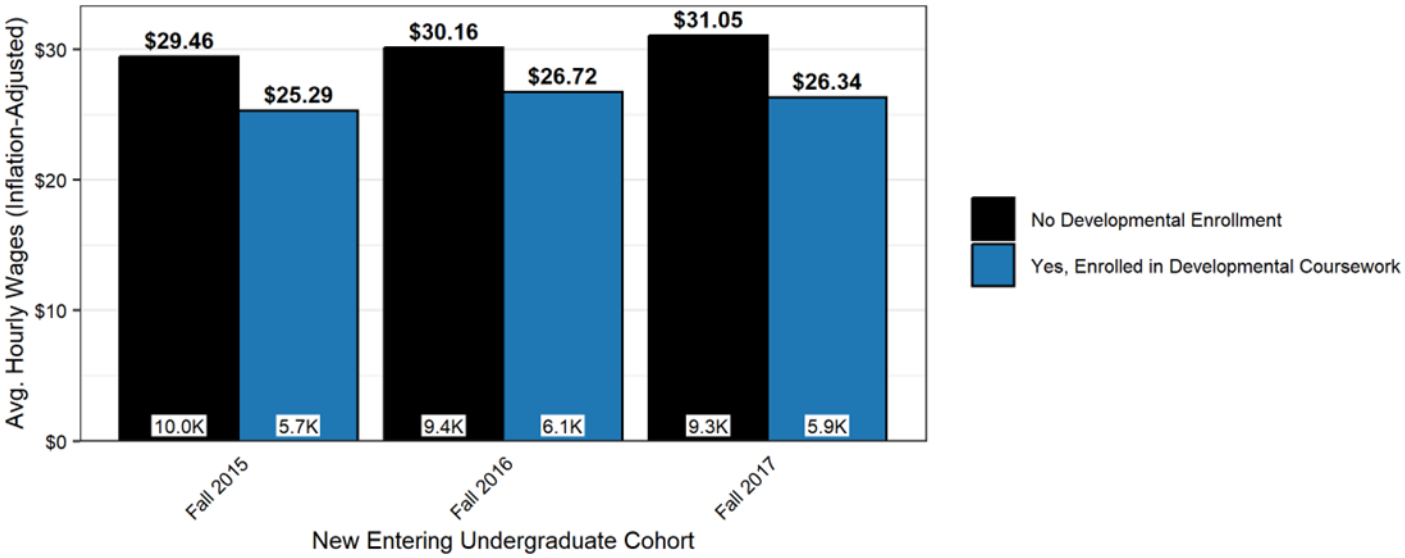
Figure 56: Average Quarterly Hours Worked 6 Years After Postsecondary Entry for Minnesota State Students Who Entered Between 2015-2017 By Developmental Education Enrollment



Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hours are only for those with reported hours > 0.

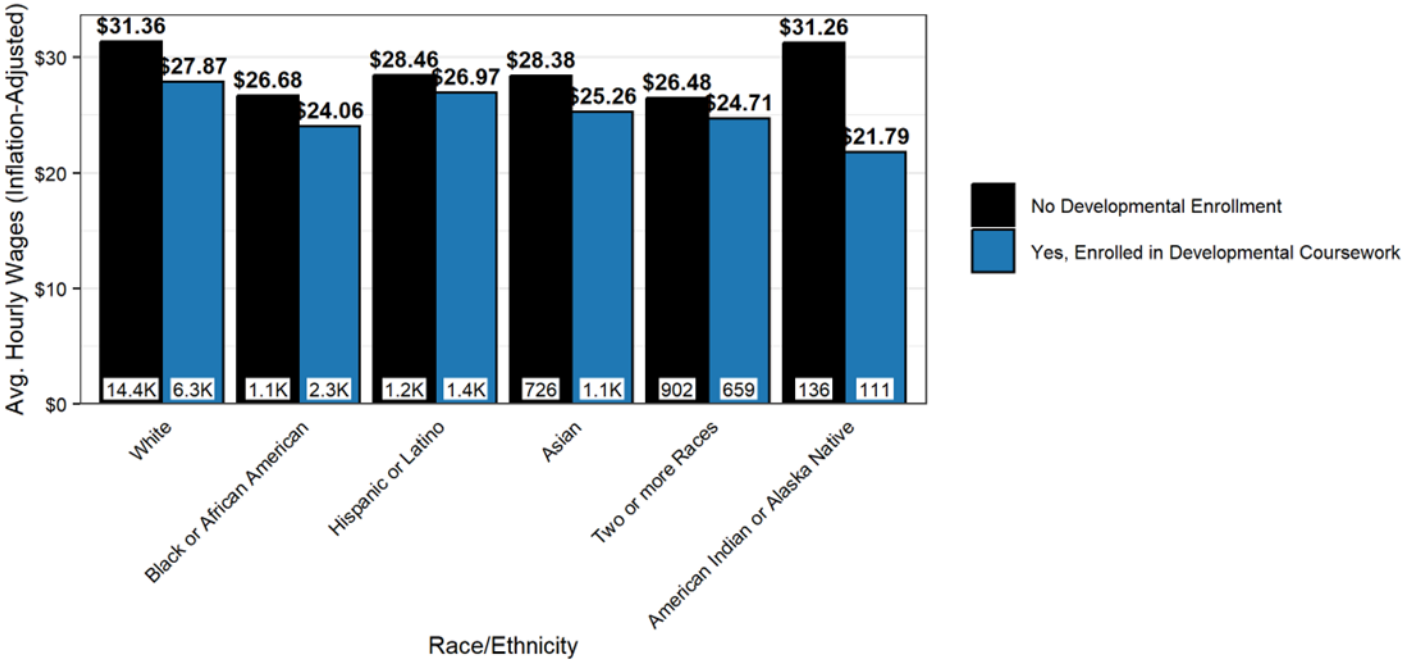
Hourly Wages

Figure 57: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered Between 2015-2017, By Developmental Education Enrollment Status and Cohort



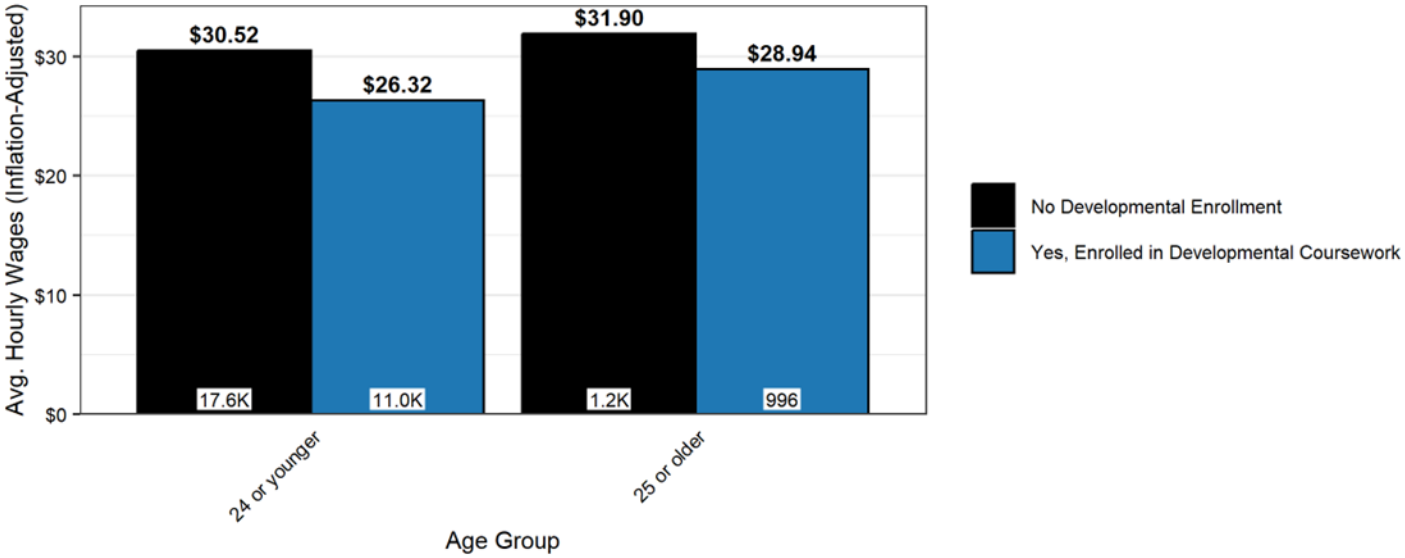
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 58: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and Race/Ethnicity



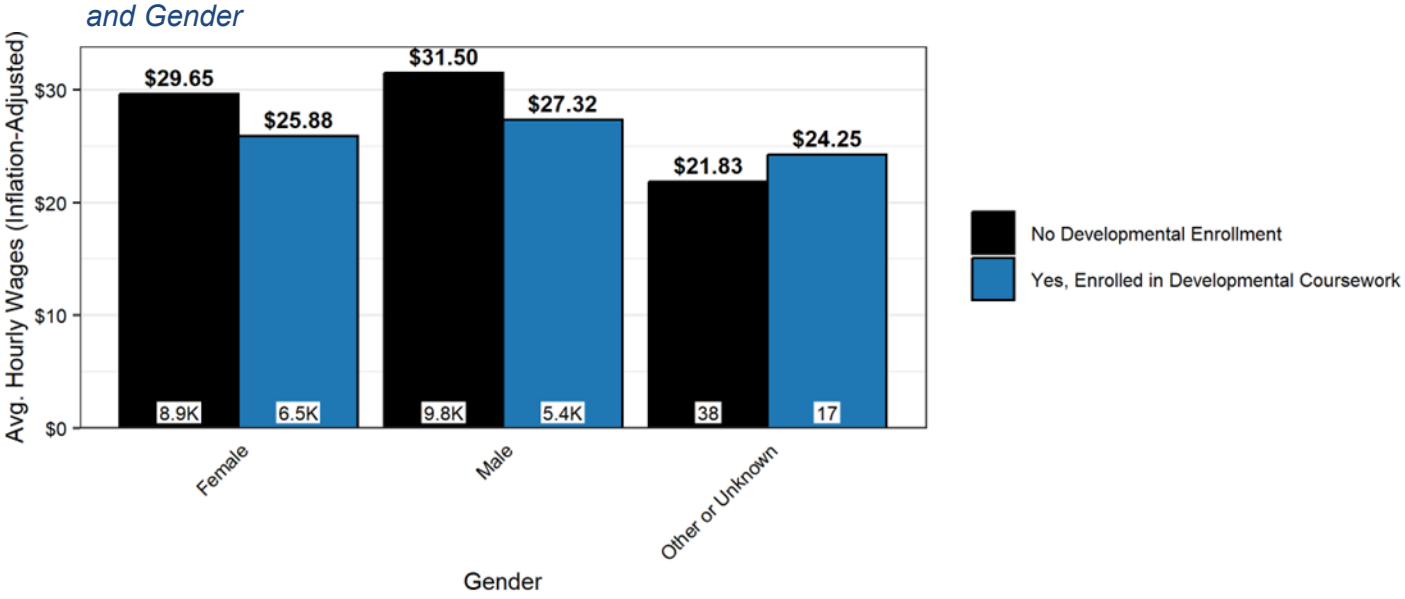
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI. Excludes Native Hawaiian or Other Pacific Islanders, International Students, and those whose race/ethnicity was unavailable. Any groups with less than 10 individuals are not displayed.

Figure 59: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and Age



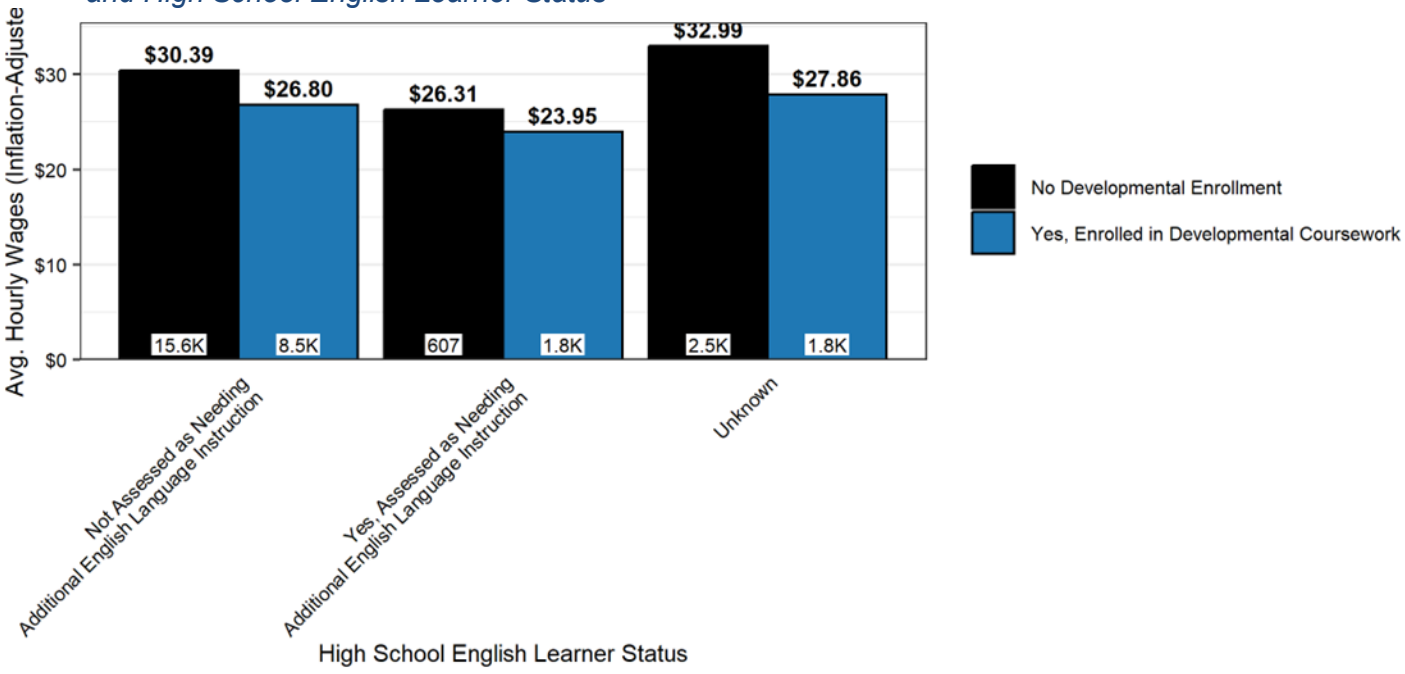
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 60: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and Gender



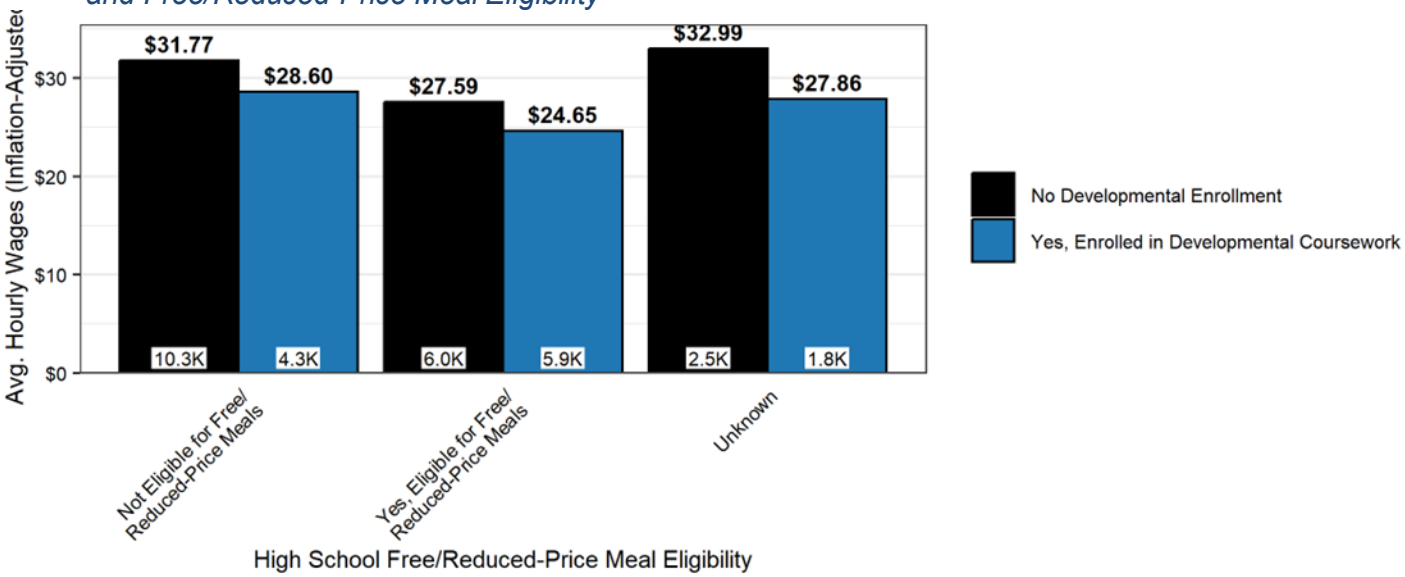
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 61: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and High School English Learner Status



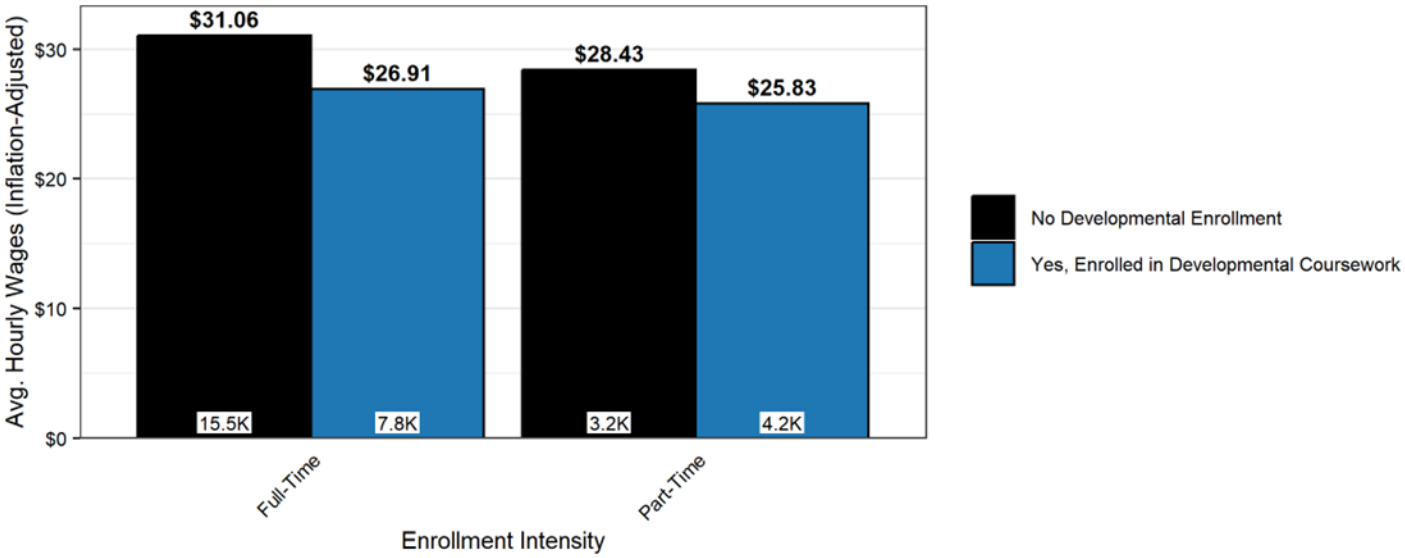
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 62: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and Free/Reduced-Price Meal Eligibility



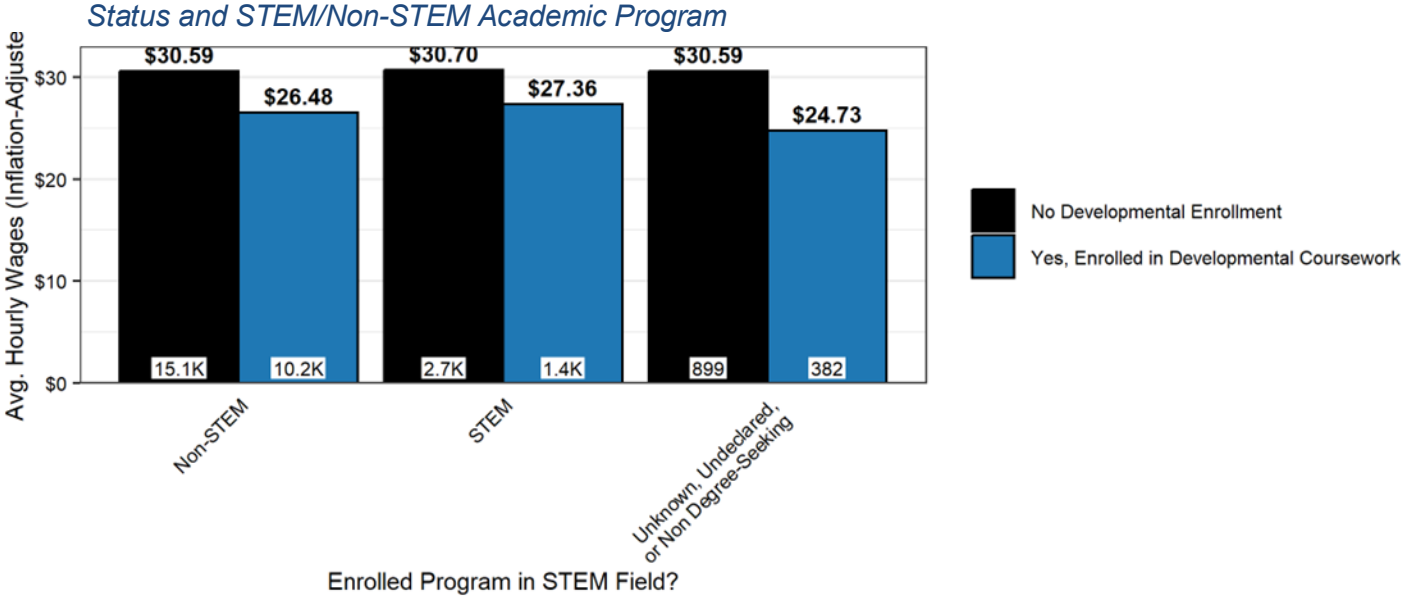
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 63: Average Hourly Wages 6 Years After Postsecondary Entry for Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and First-Semester Enrollment Intensity



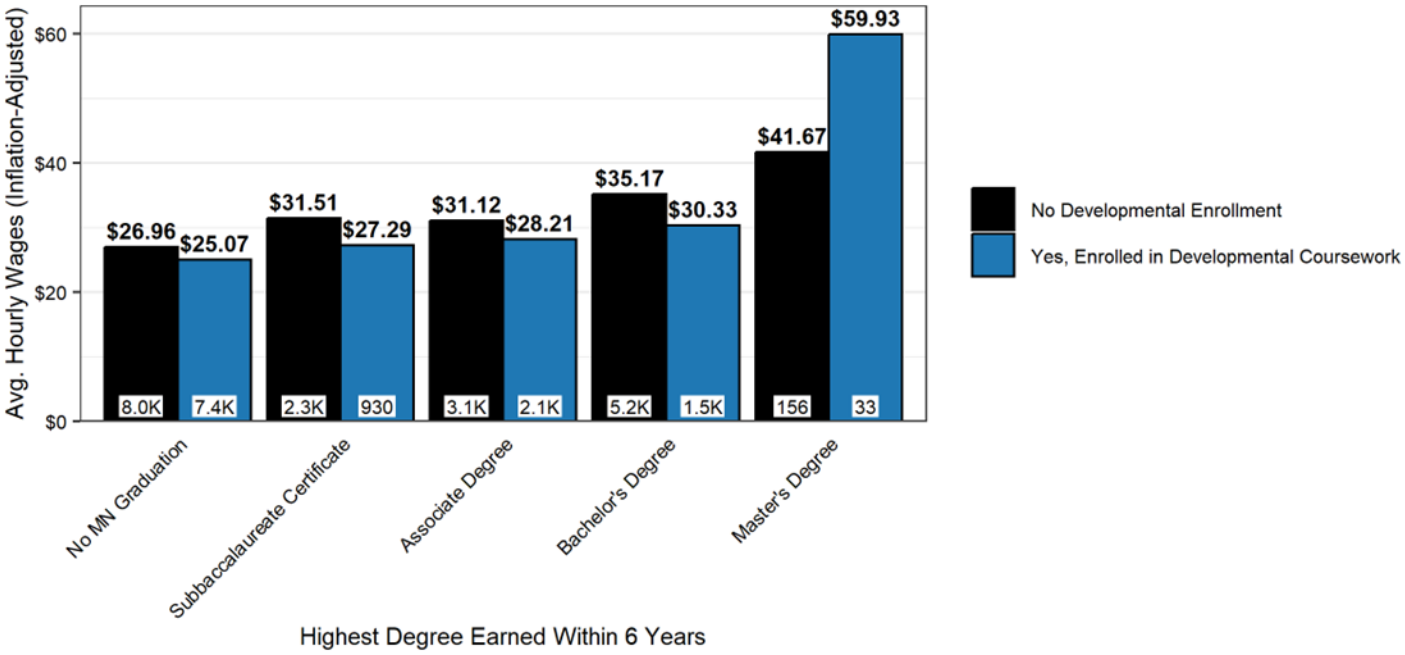
Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 64: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 And Fall 2017, By Developmental Education Enrollment Status and STEM/Non-STEM Academic Program



Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Figure 65: Average Hourly Wages 6 Years After Postsecondary Entry for Minnesota State Students Who Entered in Fall 2016 Or Fall 2017, By Developmental Education Enrollment Status and Highest Degree Earned.



Source: MN SLEDS. Note: Employment is based on a single quarter of UI wage records from the state of Minnesota. Hourly wages are only for those with both reported hours >0 and hourly wages between $6 and $1000. Wages are inflation-adjusted to 2023 dollars using the national CPI.

Minnesota State System Efforts

The most recent developmental education reform efforts within the Minnesota State System began in July 2021 with the Minnesota State System Mathematics Pathways project. The project goal is to:

Dramatically increase the number of students-especially BIPOC and low-income students-who immediately enroll in, and successfully complete gateway math courses aligned to programs of study, by providing corequisite supports that are based on sound, research-informed design principles.[30]

The project set a target for 100% of students completing a college-level math course by the end of their first year and that all educational equity gaps across race and ethnicity, socioeconomic status, and geographic location would close. The project workplan was to ensure all students who are assessed one level below college-level math be placed into a corequisite course while enrolled in the college-level course. Among the strategies to be deployed through the project are:

- Aligned math pathways with default or recommended math requirements
- Meta-majors with default or recommended math requirements
- Multiple measures placement
- Enhanced advising for those students still deemed underprepared
- Corequisite support for those students

Institutions were asked to immediately enroll students into a math pathway to ensure students have an opportunity to complete college-level math in their first year. In addition, institutions were

to support educators as they “address the role of bias and privilege in traditional school structures.”[31]

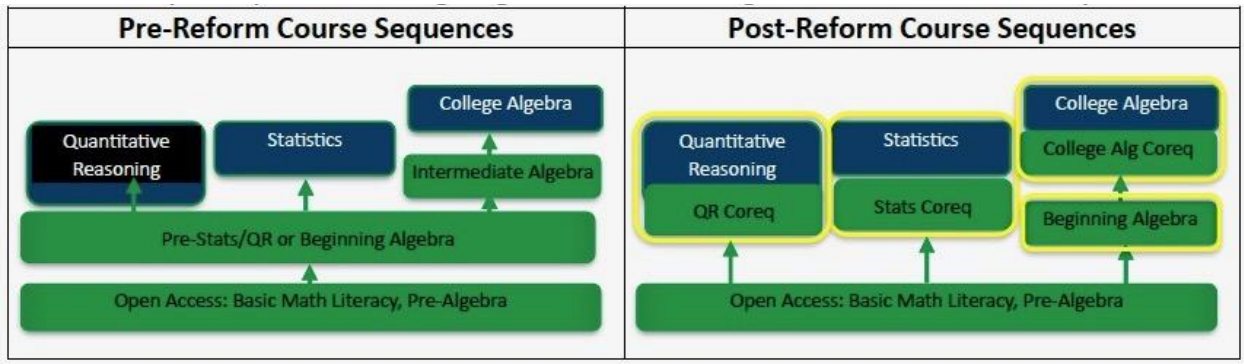
The project received a $2,371,200 grant to implement the project. At the end of 2022, 26 colleges and universities were investing in the redesign of their math curriculum through the implementation of corequisites.[32]

The Math Pathways project was the foundation for the Developmental Education Corequisite Model Implementation Plan. The plan, which began in Spring, 2024, includes four phases that will result in the full scale of corequisite support in writing, reading and math by Fall, 2027. The scale of corequisite support intends to achieve the following outcomes.

1. The number of students enrolling in and successfully completing “gateway” college courses in writing and math within their first year will increase.
2. Students will enroll in “gateway college courses in writing and math aligned to their program of study.
3. The disparities in Pell-eligible and Black, Hispanic, Asian, and Native/Indigenous students’ college-level math and English courses completion will be eliminated.
4. The disparities in Pell-eligible and Black, Hispanic, Asian, and Native/Indigenous students’ college-level math and English courses completion will be eliminated.

Students who are placed more than one level below college-level can still be placed in some form of prerequisite developmental education. Institutions are encouraged to build partnerships with ABE providers to provide support to students who are placed more than one-level below college-level in writing, reading, quantitative reasoning and Statistics. For students pursuing a College Algebra pathway, students who are assessed two or three levels below college-level can be placed in prerequisite developmental education courses. Figure 66 illustrates the reform of developmental math in the new model.

Figure 66: Pre and Post Developmental Math Pre- and Post-Reform at Minnesota State System Institutions [33]



Faculty working groups in reading, writing, and math began work on the development of a corequisite model for their subjects in Spring, 2024. The working groups will complete their work on models at the end of 2024.

Developmental Education Institutional Policy/Practice

Because the Minnesota State System is moving to a systemwide scale of developmental education reforms, our review of institutional practices amounts to a status update on current

implementation reforms to include Math Pathways and corequisite academic support along college-level courses.

We reviewed the extent that institutions offered college-level math courses that are most appropriate for a student's chosen program of study. Because completion of college-level math is a significant barrier to postsecondary success, it is important for students to focus on the math knowledge and skills that will be most beneficial to the student. For example, the first college-level course for STEM majors should be College Algebra, for social science majors statistics is likely a better option, as is quantitative reasoning for humanities and other majors that are not math dependent. Multiple math pathways are an evidence-based practice to offer students options to complete math requirements. (For more information on math pathways, consult the Research Primer located in Appendix 4).

System level efforts as described in the previous section, have resulted in the scale of Math Pathways across the system. Our review found that all 33 (100%) of Minnesota State System institutions offer multiple math pathways. These math pathways include multiple math options that simultaneously can better align to the quantitative needs of each major, satisfy Minnesota State Goal IV of quantitative literacy, and improve transfer between institutions. As a result of this work, College Algebra is no longer the default for all majors, just those with heavy quantitative requirements such as STEM. The math pathways also result in statistics and quantitative reasoning satisfying math requirements for many majors.

We examined if institutions provided information on their website that enables students to identify the college-level math course that fulfills general education and program requirements for each major: 26 (78.8) provided information about which math aligned with major degree requirements and seven (21.2%) did not provide information about the preferred math needed for major degree requirements. It is important to note that five of the seven not providing information that aligns math to the major, did indicate which math classes satisfied Minnesota State System goal 4 requirement for graduation. Several colleges indicated they were in the process of updating course sequencing and degree requirements. Across most institutions, this information was not easy or intuitive to find on their websites.

An alternative to ineffective prerequisite developmental course sequences is to deliver developmental education support while students are enrolled in the college-level math or writing courses as a corequisite. Corequisite support eliminates the structural flaw of prerequisite developmental course sequences that result in many students never reaching college-level courses. Corequisite support has resulted in dramatic improvements in college-level course completion rates.[34] The review of institutions found:

- 1 (3%) institution that has fully scaled corequisite math across all pathways,
- 18 (54.5%) institutions that are implementing corequisites consistent with the guidance provided by the Minnesota State System,
- Three (9.1%) institutions that are either in the piloting or planning phase of implementing corequisites in math,
- 10 (30.3%) do not have evidence of corequisite coursework in math either being offered or planned and,
- One (3%) did not respond to a request for clarification on their offerings.

The review also included a search for evidence of implementation of corequisite support in writing. The following are the number and percent of institutions engaged in one or more of the following strategies:

- 7 (21.2%) institutions have fully shifted to only offering corequisite English for developmental coursework,
- 25 (75.8%) have at least one level of prerequisite developmental writing or reading, and
- 1 (3%) is implementing corequisite English.
- 3 (9.1%) indicated that they are either in the process of developing and/or piloting corequisites in writing.

Community colleges were assessed to determine whether high school graduates with low placement scores were referred to ABE. Low-skilled learners in either math or writing were determined by not having any scores in the multiple measures of standardized assessments or HSGPA that met minimum thresholds established by the college.

- 7 (26.9%) community colleges did not require low-skilled learners to enroll in adult basic education,
- 15 (57.7%) referred students to ABE, but through the web review it was difficult to determine if placement in ABE was required or simply encouraged.
- 4 of 26 (15.4%) either did not respond or were unclear about the degree to which low-skilled students are referred to ABE.

For institutions offering coursework in reading, research has shown that integrating English and reading support while students are enrolled in college-level English is the most effective strategy for students placed into developmental reading.[35] Community colleges all offer developmental reading within the Minnesota State System. Our review found that:

- 3 (11.5%) have scaled corequisite reading
- 22 (84.6%) community colleges offer prerequisite developmental reading courses, and
- 1 (3.8%) institution was unclear on whether they were offering academic support in reading as a prerequisite.

Research has shown that completion of college-level math and English within the first year is associated with a higher probability that students will earn a credential.[36] Our review found that:

- 11 (33.3%) institutions encourage completion of college-level math and English within the first year and
- 22 (66.7%) did not show evidence that they encouraged completion of college-level math and English.

There was a broad range of approaches to encouraging students to complete college-level math and English in the first year. In each instance the institution had developed recommended sequencing for programs, others indicated they had robust advising to ensure that it was prioritized, some had a less strategic approach.

Providing ESOL to English learners was reviewed by the project team with:

- 22 (66.7%) institutions offer coursework for English learners,
- 11 (33.3%) do not offer any programming for English learners,
- 18 (54.5%) of institutions offer prerequisite developmental education courses for English learners.

- 2 offer corequisite ESOL coursework and two institutions did not provide clarity on ESOL offerings at their institution.
- 19 (86.4%) institutions that offer courses for English learners provided clear information about the flow and sequencing of these courses,

Some institutions have ESOL courses in their course catalog that have not been offered due to low-enrollment in the courses.

There are different approaches to offering ESOL, with some institutions offering non-credit ESOL developmental courses and others offering ESOL for college credit.

We searched for evidence that students who are enrolled in sub-baccalaureate certificates at community colleges were receiving support in completing math, English and ESOL competencies as a corequisite in certificate program courses.

- 4 (15.3%) offered corequisites in ABE/ESOL support alongside career-technical certificate coursework,
- 21(80.8%) did not appear to offer corequisite coursework in ABE/ESOL alongside CTE coursework, and
- 1 (3.8%), was unclear whether corequisite support in CTE was offered.

Student, Faculty, Staff Report on Practices and Perceptions

Institutions that completed the institutional survey demonstrated a wide variation in the length of prerequisite developmental education course sequences leading to college-level English and math courses. Faculty reported offering zero to three levels of prerequisite developmental education courses in both disciplines with one prerequisite course being the most common. With strong evidence that long prerequisite developmental education courses decrease the likelihood that students will enroll in and complete college-level courses, it is noteworthy to find institutions that maintain up to three prerequisite courses in math, reading and English.[37] (see the Research Primer in appendix X).

Table 5: Number of Developmental Education Courses That Are Offered as Prerequisites to Enrollment in College-Level Writing/Math Course Among Responding Minnesota State System Institutions.

Number of Courses	Writing/Reading	Math
0	5.6%	35.7%
1	77.8%	35.7%
2	11.1%	14.3%
3	5.5%	14.3%
Number of institutions	18	14

Student focus group participants who were enrolled in developmental education found the developmental course sequence difficult to understand, particularly when trying to determine if the course they were taking was a non-credit or credit course. This led to frustration when they later found they were paying for non-credit courses, and in some cases, may have had a choice about taking developmental education courses. One student described her experience as follows:

> *"I learned a lot, but I feel like I definitely could have also just went into classes and been earning credits that were towards my degree. It was a little bit disappointing when I found out that they wouldn't count just because I wouldn't have taken them had I known that they didn't count."*

Students who had been in corequisites were positive about the experience and appreciated that they did not have to take additional courses. However, at least one student still indicated that they did not fully understand that the corequisite portion of the course did not carry college credit.

Students had a wide range of reactions to the developmental courses in which they were enrolled. Students largely reported positive experiences in developmental education courses even in cases where they failed a course - although this may be a report based on retaking the course. Students appreciated that developmental courses had smaller class sizes, which allowed more time for faculty to build relationships and work with students individually.

> *"Maybe it's due to the smaller class size or whatnot, but you're able to talk and continue to pick up your learning and accommodate around things that are happening, like [another participant] said. So, they're probably some of the best relationships with teachers that you're maybe ever going to have."*

Students shared many examples of how faculty showed caring, encouraged them and made them feel valued. This is highly consistent with research showing the importance of relationships with faculty and creating a sense of belonging. This underscores that faculty are doing good work, and that the ineffectiveness of developmental education has to do with the structure of delivering developmental education as a prerequisite. This observation provides valuable insights on the importance of student engagement and creating a sense of belonging in college classrooms. Institutions should ensure that the design corequisite courses should strive for this level of faculty engagement with students.

Students also noted that they appreciate flexible options for course taking including in-person, online and hybrid models. They wondered about opportunities to accelerate within developmental education and ESOL courses, i.e., complete a course more quickly.

With evidence suggesting that students who enrolled in developmental education and declare a STEM major are much less likely to earn a bachelor's degree, we asked institutions about the number of college-level prerequisite courses that lead to a required calculus in STEM programs. Colleges that require prerequisite developmental courses before students can enter a calculus pathway, it is highly likely that many students may not have the opportunity to enroll in calculus until at least their fourth term and in some cases more terms.

Table 6: Number of College-Level Courses Preceding Calculus If a Student in Placed Into The Lowest College-Level Math Course Among Minnesota State System Institutions.

Number of Courses	Percentage
2	71.4%
3	21.4%
4	7.1%
Number of institutions	14

Access to corequisite courses varies across institutions. A higher percentage of institutions were reported as offering corequisites for math courses than for writing courses as shown in

Table 7. This may be because some institutions only had submissions from one of the disciplines.

Table 7: Percentage of Responding Minnesota State System Institutions Offering Corequisite Courses to Provide Extra Support in College-Level Writing/Math Courses Based on Survey Data.

Corequisite Offerings	Writing	math
Yes	55.6%	85.7%
In development	5.5%	
No	38.8%	14.3%
Number of institutions	18	14

Among the institutions that responded to the survey that indicated they are offering English corequisites, the vast majority are offering a cohort model in which one instructor teaches both the college-level and the support classes. One institution offers a cohort model with two instructors, i.e., the students are in the two courses together but have different instructors for each. Most of the institutions report that the corequisite curriculum is aligned to provide just-in-time support for the college-level course. Three institutions report that the corequisite curriculum is based on the prerequisite developmental education course that preceded the adoption of a corequisite. One institution reported offering corequisite support specifically designed for English learners who enrolled in college-level English. This is an area in which training might be helpful as just-in-time support is considered a more effective practice.

There was greater variety among the corequisite math models. Nine institutions have a cohort model with one instructor, three have a model in which the corequisite students have the same instructor for both courses but are commingled with students who are not in corequisites in the college-level course. Three institutions offer multiple corequisite models. The various models create an opportunity for shared learning across institutions to identify the models that are most effective for different contexts. All the respondents reported that the corequisite curriculum is designed to provide just-in-time support aligned with the college-level course rather than teaching math content that may not be necessary for students to complete the college-level course.

Sixteen respondents to the math survey indicated that their institutions offer multiple math college-level courses. All reported that math faculty had worked with partner disciplines to determine which college-level course was best aligned to programs of study and ten reported that this had been done for *all* programs. However, a Project Advisory Committee member noted that the

alignment of math courses to programs of study is not standardized across institutions which can lead to problems in transfer.

Any differences in data between the institutional website review results from the survey of institutions can be explained by the two different sources of information and the fact that the survey of institutions did not receive responses from all Minnesota State System institutions.

Many faculty are wary of corequisite courses and believe that many students need prerequisite developmental courses. A notable point of contention is the effectiveness of corequisites in improving pass rates and retention for students who are well below the cutoff, as opposed to students who are on the cusp of college-level readiness.

> *"We're stealing. We are stealing from students when we place them into classes that they are not ready to take. That is theft."*

Other faculty shared the success that they have achieved with the implementation of corequisite models. One math faculty member shared,

> *"Students are completing their math requirements faster, with higher pass rates and greater retention" and another shared that "student throughput has increased due to corequisite implementation."*

A writing faculty member wrote in the survey that:

> *"Corequisite students are taking and passing the gateway writing course within their first year at higher rates than they did under our previous model consisting of two stand-alone developmental writing courses prior to the college-level gateway course."*

Other areas of concern expressed by faculty and staff are the impact of large class sizes, students placing into courses for which they are not prepared, scheduling challenges, high number of credits/contact hours required for corequisite and college-level courses, and the availability of in and out of classroom support. Scheduling challenges, particularly for non-traditional students, and the need for more guidance and clarity around placement policies are areas that require attention. An advising staff member worried,

> *"If developmental education is eliminated, there will not be enough funding to increase student support services for students in college level math and writing courses."*

The surveys revealed continuous improvement practices being deployed by institutions. Most respondents in math and writing reported that faculty have received training to develop skills to meet the needs of students who may be minoritized due to race, income, language or immigration status. Focus group participants expressed a need for additional training, especially in meeting the needs of English learners.

The surveys revealed a wide range of data used in improving developmental and college-level courses including data from institutional research on course outcomes, throughput, retention,

graduation rates, and classroom-level student learning outcomes. Most institutions said that they are using disaggregated data to understand differences among students. Some institutions are developing processes around data use. Some respondents indicated frustration with faculty access to data. One respondent was especially concerned about focusing only on success in a college-level course without tracking student outcomes in later courses. At the other end of the spectrum, Inver Community College reports using PowerBi data visualization software to provide data dashboards accessible to faculty.

The use of institutions gathering student input and feedback was much less prevalent and mostly focused on course evaluations, surveys, and direct feedback to faculty from students. Examining student input was often dependent on the efforts of individual faculty, rather than by the department. Several respondents stated that they did not know of any use of student feedback in improvement efforts. Anoka Ramsey Community College reports using survey data collected weekly, monthly or after exams in math courses in real time to improve courses and to identify trends that are discussed in faculty learning communities.

The variation in data use across institutions provides an opportunity for shared learning and training to help institutions, departments and faculty use data more effectively and efficiently. Engagement and transparency around data is an opportunity to build trust and ownership processes and build a more positive, student-centered culture.

Summary of Project Findings

Impact of Minnesota Placement Policies and Practices on Students and Families

As the population of potential college students shifts to become older and less White, enrollment efforts will need to reach populations that have traditionally been underserved by postsecondary education, particularly Black, Hispanic/Latino, Asian, Indigenous, and adult students as well as students from low-income backgrounds, resident immigrant and refugee populations. Unless enrollment efforts are focused on these populations, Minnesota will not achieve its attainment goals.

The legislation outlined that the study should address the following four questions:

1. Did policies, practices, and assessments exclude students from admission thereby hindering their full participation in higher education?
2. Did policies, practices, and assessments hinder the participation of students?
3. Did policies, practices, and assessments hinder the placement, retention, or timely college graduation of students?
4. Did policies, practices, and assessments have adverse consequences to students and their family, including burdensome economic and related costs of delaying their degree plans?

Overall, we found that policies and practices where students are placed into prerequisite developmental education and must complete developmental education before enrolling in and completing college-level math and English courses had a detrimental effect on postsecondary progress toward and completion of postsecondary credentials. Further, students who enrolled in developmental education had lower hourly wages six years after enrollment in postsecondary education. Finally, we found that placement of students into prerequisite developmental education contributed to equity gaps in postsecondary outcomes. Following are more detailed findings.

Did policies, practices, and assessments exclude students from admission thereby hindering their full participation in higher education?

Placement and prerequisite developmental education did not impact admission to college, but lack of supports for English learners, refugees, and immigrants made applying to college more complicated.

We found little evidence that students were denied admission into postsecondary education due to placement policies and practices. However, we did find examples of practices that would complicate student application and admissions into postsecondary education. Lastly, we did find practices being implemented by individual institutions that promoted enrollment in postsecondary education, particularly for students of color and low-income students.

Refugee and immigrant students who did not graduate from a U.S. high school face a more complicated process for getting admitted to Minnesota State system institutions. Most institutions indicate that resident refugees and immigrants should apply through the traditional application process used by U.S. citizens, but information about demonstrating proof of secondary education is not explicitly articulated on many campus websites for these students. Further, there is not a standard policy across the system for how to demonstrate proof of earning a secondary education. The lack of transparency may result in different outcomes for students across all Minnesota State System institutions.

Institutions are implementing promising strategies for increasing the number of applicants and enrollments among students of color and low-income students. There were examples of institutional efforts that did result in higher rates. US Department of Education grant-funded TRIO programs have been a long-standing opportunity for first generation students, students of color and other underserved populations to transition from high school into postsecondary education.

Some colleges are providing admissions and financial aid information in the native language of English learners. This practice ensures that English learners, and resident refugee and immigrant students can access postsecondary enrollment information more effectively.

ABE participants are an important population for increasing postsecondary enrollments. The review of ABE data reveals low postsecondary enrollments two years after individuals participate in ABE. While we found many instances where ABE services were available on postsecondary campuses, ABE presence has not resulted in strong partnerships to successfully transition ABE participants into postsecondary education at many institutions. Fortunately, there are some partnerships that show potential for replication across the system. For example, the International Institute of Minnesota's College Readiness Academy has shown positive outcomes for ABE students in terms of postsecondary enrollment and completion. ABE programs provide unique insights on how best to serve populations that have been traditionally underserved by postsecondary education. This unique capacity within ABE should provide a leg up to students by helping prepare students for their application to Minnesota State Colleges. Students pursuing high school equivalencies or resident refugee/immigrant students who choose ABE before applying for college should benefit from strong partnerships between Minnesota State institutions and the ABE providers on their campus.

Did policies, practices, and assessments hinder the participation of students?

Shifts to using HSGPA increased access to college-level classes, but did not increase participation in those classes.

The Minnesota State System guidance to institutions to use HSGPA for placement increased access to college-level courses. The shift to placing students via HSGPA provided an opportunity for institutions to have direct experience with a placement approach that research has demonstrated is a more effective measure than standardized tests. The guidance outlined a set of specific HSGPAs that would exempt students from placement into developmental education courses. The HSGPA set by Minnesota State System resulted in many more students being placed directly in college-level math and English courses. Research has shown that enrollment in college-level courses, without first placing students in prerequisite developmental education, is the strongest predictor of student completion of college-level math and English courses.

Despite increased access to college-level math courses, new entering students are not participating in and completing college-level math courses in their first year. Minnesota State institutions have consistently had a low percentage of new entering students who complete college-level math courses in their first year. As a result, we don't believe that increasing access to college-level math affected college-level math completion. A more likely explanation is that most new entering students, regardless of placement, are not enrolling in college-level math courses in their first year. A primary reason for low enrollments in college-level math is because college-level math is not a general education requirement at Minnesota State institutions. As a result, many students can complete all their general education requirements without enrolling in math. This is problematic given that many programs of study still require one or more math courses to earn a credential. We are concerned that students are either delaying entrance into programs with math requirements or are not participating in those programs at all. Given that math skills are highly valued in the 21st century economy, many Minnesota State students may not be graduating with the skills they need to compete in the current economy. Further, with research illustrating that completion of college-level math in the first year is predictive of college completion, it is important to examine how low first year college-level math and English completion rates are impacting credential completion rates, particularly bachelor's degrees.

Many students who were placed into developmental education did not participate in developmental education courses in their first year. Another consequence of math not being a general education requirement is that students placed into developmental math may be avoiding both developmental education and college-level math. Student avoidance of both developmental math and college-level math suggests that developmental education students may be less likely to enter programs with math requirements. The fact that math is not a general education requirement raises the question of why students are required to be placed into college-level math at all.

Inconsistent advising for new entering students complicates student placement and participation. Given low participation rates among new entering students in college-level math and English courses and the potential implications for not completing those courses in the first academic year, it very important that new entering students meet with advisors once they receive their placement and before they register for courses. Students need an advisor to point out how

their choices in the first year will impact their prospects of success. Most, but not all institutions, either require or strongly encourage students to meet with an advisor before registering for classes. These institutions can provide the initial support that many students need to effectively transition into postsecondary education. Students expressed the need for advising to help make the transition to postsecondary education by helping them identify and clarify a program path that they could follow to a credential. Helping students choose a program of study and complete college-level math and English in the first year is the cornerstone of a strong academic plan. Completing college-level math and English courses in their first year, credit accumulation, and student choice of program in the first year are also predictive of student persistence and completion.[38] Effective advising for new entering students can ensure more students achieve all these momentum metrics in the first year.

Faculty, staff and Minnesota State system office representatives articulated several challenges to requiring advising for all new entering students to include limited resources and staff. In addition, many community colleges register students right up to and through the first week of classes, making it difficult to advise students before registration.[39] While there are real challenges, several Minnesota State system institutions have implemented this practice.

Students value effective instruction and support they received in developmental education courses, but did not feel they needed the prerequisite developmental education course. Many students valued the more personalized instruction and community building that occurred in prerequisite developmental education courses. Nevertheless, they did not think they needed a full semester prerequisite developmental education course. This finding suggests that instructional strategies could be replicated in college-level and corequisite courses. Many students found the smaller class sizes, the more individualized instruction, and the effort by faculty to build a relationship highly valuable. While many students thought they did not need the separate developmental education courses, their experience in the course seemed to increase their sense of belonging. While this is not a reason to maintain prerequisite developmental education, it does provide insights on how to effectively support students once they enroll in corequisite and college-level courses.

Students who enrolled in developmental education did have decreased participation in higher education.

The change to HSGPA did not eliminate equity gaps in developmental education participation. While the shift to HSGPA increased access to college-level courses for all students, we still found that students of color, students from low-income backgrounds, and students from urban communities were still more likely to enroll into developmental education courses. Given that prerequisite developmental education reduces the likelihood that students will complete college-level math and English courses, the equity gap in enrollment in developmental education translates into an equity gap in the percent of students who complete college-level math and English in their first year.

Students who did not enroll in a rigorous or CTE focused high school curriculum were more likely to participate in developmental education, contributing to equity gaps. Students who participated in a Career Technical Education or a rigorous high school curriculum that included: PSEO, Concurrent Enrollment, Advanced Placement and/or International

Baccalaureate courses were less likely to be enrolled into developmental education. Given that students of color and other underserved populations are less likely to enroll into rigorous high school courses, it is possible that lower participation in these high school options among these populations may contribute to equity gaps.

Students who participated in English proficiency instruction or special education in high school, adult students, and part-time postsecondary students were more likely to enroll into developmental education. Adult students, who are seeking a postsecondary education to improve their job prospects and income, and part-time students, who are already less likely to complete a credential in six years, may take even longer to complete their postsecondary credentials once they are placed into developmental education.

Referral and placement of admitted students to ABE is inconsistent and may impede college participation. We found many colleges that either refer or place students into ABE to complete prerequisite developmental education requirements. The practices were inconsistent and there appears to be little evidence indicating if this practice improves the likelihood that students will successfully complete a postsecondary credential. There is strong evidence that requiring admitted students to complete prerequisite developmental education before enrolling in college-level courses decreases the likelihood of them completing important first-year academic milestones. As a result, the practices of referring or placing admitted students into ABE to receive English language, reading, writing, and math instruction are likely to negatively impact student participation in postsecondary education. While ABE can provide a leg up for prospective students, referring students who are already admitted to a Minnesota State institution acts as a step back from postsecondary education.

Did policies, practices, and assessments hinder the placement, retention, or timely college graduation of students?

Placement of students into prerequisite developmental education hindered student retention, timely completion of a credential, and achievement of bachelor's degrees.

Students who were placed and enrolled in prerequisite developmental education are less likely to complete college-level math and English in their first year, persist to a second year, and graduate with a credential within 6 years of entry. This finding is consistent with research finding that placement in developmental education negatively impacts credential completion. This finding illustrates that within the Minnesota State system, enrollment in prerequisite developmental education negatively impacts success in postsecondary education.

Prerequisite developmental education expands equity gaps. Students of color and students from low-income backgrounds who are enrolled in developmental education are less likely to complete college-level math and English courses than white students placed into developmental education. When combining this finding with the earlier finding that students of color, low-income students and other underserved populations are more likely to be placed and enroll in prerequisite developmental education, it is reasonable to conclude that prerequisite developmental education expands equity gaps in postsecondary attainment.

Students enrolled in developmental education are far less likely to earn bachelor's degrees in six years than students not enrolled in developmental education. Students enrolled in

developmental education are less likely to earn a postsecondary credential of any kind in 6-years. However, the most significant difference in credential completion is the significant difference in bachelor's attainment between those who enrolled in developmental education and those who did not. This difference in bachelor's degree completion is even wider among students who declare their intention to pursue a STEM credential. Students who enrolled in developmental education and declared a STEM major are far less likely to earn a bachelor's degree than non-developmental STEM majors. At a minimum, this finding suggests that students who enroll in developmental education are taking longer than six years to complete bachelor's degree, they are choosing to pursue sub-baccalaureate certificate or associate degree programs instead, or they are dropping out without earning a credential.

Did policies, practices, and assessments have adverse consequences to students and their family, including burdensome economic and related costs of delaying their degree plans?

Placement and enrollment into developmental education presented economic burdens in terms of lower likelihood of reaping the dividends from timely completion of a postsecondary credential.

Participation in the workforce six years after graduation was not significantly different between students who enrolled in developmental education. There were no differences overall in participation in the workforce and there were no significant differences based on the credential earned between students enrolled in developmental education and those who did not enroll in developmental education first year.

Students enrolled in developmental education worked fewer hours than students who did not enroll in developmental education 6 years after initial enrollment in postsecondary education. One reason students enrolled in developmental education may have worked fewer hours is that they had not earned a postsecondary credential or were still enrolled in postsecondary education.

Hourly wages for students enrolled in developmental education are lower than students who did not enroll in developmental education. Earnings six years after entrance into postsecondary education are generally lower for students who enroll in developmental education. The combination of lower wages and fewer hours worked suggests that enrollment in developmental education resulted in lower overall earnings than students who did not enroll in developmental education. We found that students of color were particularly impacted by this finding. As a result, enrollment in developmental education resulted did not result in short term economic benefits.

Lower 6-year graduation rates for students increase burdens on students who enrolled in developmental education. As a result, these students were either still enrolled in postsecondary education or had dropped out. In either case, students were not benefiting economically from a postsecondary credential. For many who were still enrolled, these students had the ongoing burden of balancing college, work, and family.

For students enrolled in developmental who completed a credential, credits to degree were lower and employment rates for bachelor's degree students were higher. While these results should be recognized, this finding also suggests that developmental education may also

be filtering out many students. It could be argued that the students who did earn credentials were those who persisted despite the additional hurdles developmental education presents, not because of their developmental education placement. Because students enrolled in developmental education are less likely to earn a postsecondary credential in 6 years, positive findings for those who completed a credential should be tempered.

Policies and Practices that Hinder or Support Effectiveness of Developmental Education

Inconsistency in the design and implementation of placement practices increases potential for inequitable outcomes.

Most institutions are using HSGPA for course placement but there are some institutional practices that are not aligned with evidence-based practice. Nearly all institutions are implementing HSGPA consistent with Minnesota State System guidance. With full recognition that institutions are transitioning their placement practices and are anticipating a new placement policy, we did find differences in the implementation of HSGPA as a placement measure that should be examined before a new policy is adopted. We found several institutions that combined the use of HSGPA with other measures like high school course taking and standardized tests. Combining HSGPA and high school course taking can result in more effective placement, particularly in math. We also found colleges that have a particular HSGPA **and** a standardized test score for students to be placed into college-level course. Requiring students to meet both HSGPA and a standardized placement score to place into college-level courses may undermine the effectiveness of placement. There is strong evidence that HSGPA should be the default measure for placing students into college-level courses. If a student does not place into college-level courses based on HSGPA, examining additional measures like standardized assessments can be used to give students an additional opportunity to place into college-level courses. Conversely, any single placement measure should not demote students who have placed into college-level courses using other measures.

Placement practices are often complicated and not transparent. We found that faculty, staff and students all agreed that placement practices are often complicated, confusing and inconsistent. They urged more simplicity and consistency in placement. We also found that information about placement on institutional websites was inconsistent across institutions. Some institutions provided clear and accessible information about policy and practices, while others provided very few details about various placement practices. There is research that placement policies and practices need to be as simple as possible to ensure maximum transparency and effectiveness. As the policy becomes more complicated, there is a likelihood that it will become more difficult to implement and more confusing to students, faculty, advisors, and other staff.

Placement of students into developmental education sequences are inconsistent across institutions. While all institutions have consistent placement standards for placing students into college-level courses, there was not the same level of consistency for placing students into various levels of developmental education. The lack of consistency could result in students with similar placement profiles receiving different placements at different institutions. Based on the placement standard at any given institution a student could be placed into one or two developmental courses they must complete before enrolling in college-level courses. Some students may even be referred to Adult Basic Education. As Minnesota State system institutions

move toward implementing corequisites, it is possible that institutions will set very narrow bands for placing students in corequisites, which could result in many students being placed into prerequisite developmental education or ABE. For that reason, it is important to establish additional standards for placing students into developmental education sequences. Another way to solve this problem would be to fully eliminate prerequisite developmental education.

Institutions are using guided self-placement in various ways, despite a lack of evidence on effective approaches to implementation. Guided self-placement allows students to participate in the placement process by empowering them to make informed choices regarding their placement. Guided self-placement is a common practice for students who graduated from high school more than ten years before their enrollment in college or students who don't otherwise have a HSGPA. We found several Minnesota State institutions that were implementing guided self-placement, but there was no consistency in how it was deployed from institution to institution. There is little evidence on the most effective approach for guided self-placement. Given the various approaches taken at institutions, it is possible that there may be wide variation in the effectiveness of using guided self-placement.

Few institutions engage in evaluation and continuous improvement of developmental education practices. We found that most institutions do not review their placement practices annually and many do not have a regular interval for evaluating the impact of their practices. Ongoing evaluation and continuous improvement of the system policy as well as support for institutional efforts to revise practices can result in improvements of student success and create greater buy-in to reforms among faculty and staff. The College System of Tennessee, City University of New York, and other systems that have implemented placement reforms regularly evaluate their placement practices and revise policy and practice accordingly. Through regular evaluation, these systems have made several adjustments to practice that are improving placement effectiveness and instructional practices. In addition, evaluation and continuous improvement creates greater transparency and opportunities for engagement with faculty.

Placement Practices that Hindered or Supported Effective ESOL Instruction

Lack of consistency in placement policies and practices for English proficiency may cause inequities across the Minnesota State system.

Processes for the identification of students for assessment of English language proficiency and placement criteria are inconsistent and not transparent at many institutions. There is not a Minnesota State System policy on the identification and placement of students into ESOL. Without a policy, institutions are likely using different approaches that might result in inconsistent placement. There are also no clear standards across the system for determining when students who participate in ESOL courses are deemed proficient. The result of these practices is that there could be inequities across institutions where a student at one institution may receive a different placement than they would receive at another institution.

English learners and ESOL faculty often feel stigmatized at their institutions. ESOL faculty expressed that ESOL faculty, and their students are not always valued on college campuses. We heard that some students avoid being assessed for English language and/or enrolling in ESOL courses because they don't want to delay their progress to a degree or to be stigmatized as an "English learner." ESOL instructors also mentioned feeling marginalized at their institutions.

Minnesota State institutions don't receive student results from the ACCESS assessment. ACCESS is used to measure English proficiency among high school students who are English learners.[40] ACCESS results could help standardize student placement into ESOL without students having to take assessments, like the ACCUPLACER and TESOL. We are not certain that use of ACCESS will improve placement of English learners, but we believe it is worthy of study because of its potential to standardize placement and improve the efficiency of placement of students for ESOL.

Some institutions are implementing innovative practices for serving English learners. We found institutions that had adopted practices to more effectively serve English learners and provide them ongoing support without delaying their entry into college-level math and English courses. Corequisite English sections for English learners, offering degree credit for completion of ESOL coursework, and collaboration between ESOL faculty and discipline faculty were all mentioned as strategies that institutions should consider. Postsecondary institutions should provide ongoing English language support to ensure the success of students. We believe there should be deeper study and examination on how to maximize language proficiency for students without undermining student intentions to enroll in postsecondary education.

Current Minnesota State reforms and expected policy changes will address many, but not all problems with placement of students into developmental education.

Planned Minnesota State reforms will improve placement and the delivery of developmental education for students. Minnesota State has been continuously engaged in the revision of placement and developmental education policies and practices for the past several years. The system is making great strides to address the systemic flaws of using standardized tests to place students in prerequisite developmental education. We anticipate that these changes will result in improved outcomes for students who would have traditionally been placed into prerequisite developmental education in years past.

The Minnesota State System developmental education reform plan does not fully address the failures of prerequisite developmental education. While the planned reforms are an improvement over past practice, we don't believe these reforms will go far enough to ensure student access and success in postsecondary education. Several planned practices are not supported by research and are contrary to evidence-based practices that have been effectively implemented and scaled in other states. For example, Minnesota State's plan to maintain prerequisite developmental basic algebra for students on the math pathway that leads to STEM degrees could result in many students who desire a STEM degree not following that path. We found that the path to calculus courses for any student may take up to two years, but it would be even longer for a student who begins their path to a STEM degree in basic algebra. Maintaining long course sequences through both prerequisite developmental education and college-level math courses that students must complete before they can enroll in calculus will result in many students never reaching calculus, much less completing it.

In addition, Minnesota State's recommendation to refer admitted students to ABE is inconsistent with current research. The research has shown that students who are assessed at the lowest skill levels are more likely to complete college-level courses if they receive their support as a corequisite. The Minnesota State plan to refer students to ABE maintains prerequisite

developmental education for many students. Further we are concerned that maintaining prerequisite developmental education in any form will result in many institutions limiting access to corequisite courses for many students who would benefit from being placed in those courses. We are concerned that referring students to ABE will diminish the overall impact of developmental reforms by allowing institutions to increasingly rely on ABE referrals for students who do not place into college-level courses.

Many faculty and advisors are not convinced that current HSGPA placement standards and guided self-placement are effective placement measures. Faculty and advisors we engaged raised doubts about new placement measures based on their personal experiences with the placement process. A primary concern was that the HSGPA standard for being placed into college-level courses was too low. A new placement policy should evaluate the current guidance on HSGPA and adjust the HSGPA standard based on data and engagement with faculty and staff.

Faculty and staff seek resources to implement developmental reforms. As access to college-level courses expanded after moving to placement using HSGPA, faculty reported that college-level courses became more difficult to teach and that course success rates for students enrolled in the course were lower. Faculty expressed frustration that they are asked to implement reforms with little to no resources and that their concerns about implementation of reforms go unheard. As a result, faculty and staff advocated for more resources and support to implement reforms. Faculty also ask for an ongoing dialogue across the system to discuss challenges to implementation and seek systemwide solutions. States that have implemented and scaled developmental education reforms have appropriated funds, acquired philanthropic resources, and/or reallocated existing resources to implement reforms with fidelity. Investments in professional development, release time to redesign courses, and small grants to institutions to support the transition to the new approach to developmental education have all been utilized by other states.

Minnesota State system institutions' lack of timely access to HSGPA and other high school performance data complicates implementation of placement reform. We found that Minnesota State institutions are not able to receive HSGPA and MCA information in a timely manner. The Minnesota State system's adoption of HSGPA as a placement measure and state statute requiring that the MCA be used as a placement measure increases the need for more efficient access to this information for placement.

Student and community engagement resulted in new insights on the experiences of students. Our engagement of both students and community representatives in this study provided valuable insights into the challenges students face when placed into developmental education. Students were empowered by their opportunity to share their perspectives for the study, and they would welcome further opportunities to be engaged. The Project Advisory Committee, which included community leaders, state leaders, system leaders, and faculty leaders made great contributions to the project. In addition, it provided an opportunity for all constituencies to come to some common understanding of both the challenges and solutions to improving equitable outcomes. We also found in this project that community leaders can also participate in solutions to improve student outcomes. Partnerships with such local community organizations to

offer support services like advising, tutoring, and student success workshops create opportunities for students to receive services in their local neighborhoods.[41]

Conclusion

Developmental education reform as the cornerstone of a broader postsecondary attainment strategy. Developmental education reform is not a singular solution to low postsecondary completion rates, but it can be the cornerstone of impactful institutional reforms to ensure improved and more equitable outcomes for students. Institutions should double down on investments to increase college-level course completion rates, by investing in advising and other supports to sustain the momentum students achieve after reaching academic milestones. This is particularly important for students who have the greatest academic and non-academic needs. Such support could include humanizing and culturally responsive advising approaches to create greater social belonging and proactive and holistic advising, which is characterized by relationality, empathy, cultural competence and holistic advising services. Likewise, an expansion of tutoring services that include after-hours tutoring, in-person and synchronous (virtual) options, and tutoring in multiple languages from ESL-trained tutors can enhance holistic support for students.

Other strategies that can support the success of all students include the use of semester-by-semester program maps that lay out all the courses needed for a program and the semesters they should be taken. A customized academic plan for each student that adapts program maps to the unique circumstances for each student.

These strategies can also be useful for meeting the needs of students who are typically underserved by institutions and improving their credential completion rates. Lower credential completion among students of color, students from low-income backgrounds, English learners, and adults is an important challenge that requires energy and resources.

Recommendations

The project team applauds the efforts of Minnesota State System and their Developmental Education Roadmap for implementing reforms to course placement and developmental education reforms. We have confidence that implementation and scale of placement and developmental education reforms will result in improvements in key student success milestones and earnings for students who have traditionally been placed into developmental education. However, there is still a great deal of work to be done. Decreasing numbers of high school graduates, mostly fueled by deep declines in high school graduation among White students suggest that Minnesota State could experience dramatic drops in postsecondary enrollment. The silver lining is that there will be increases in high school graduations among students of color. Minnesota State can capitalize by engaging in reforms that will reach these students as well as adults, resident refugee and immigrant populations, and ABE students.

For these reasons we recommend that the state of Minnesota and Minnesota State consider the following recommendations that build on their existing developmental education reform strategy.

1. The Minnesota State system should codify current system guidance on use of HSGPA for placement by establishing system wide policy to scale the use of high school grade point average as the primary measure for placement of students into college-level courses.

We recommend the following action steps to achieve this outcome.

Minnesota State should:

- Work with the Assessment for Course Placement Committee to adopt and standardize the use of HSGPA cutoffs as the primary measure for placement into college-level math and English courses as well as corequisite and prerequisite development education.
- Standardize the use of HSGPA as the primary placement measure for 10 years after high school graduation.
- Students who enter postsecondary education more than 10 years after high school graduation should be default placed into corequisite courses, with the opportunity to select out of the courses through a guided self-placement or other institutionally based placement procedure.
- Incorporate the use of additional placement measures including use of standardized assessment to “bump up” student placement into college level math and English courses if the student does not place into college-level courses through HSGPA.
- Ensure that any placement measure is not used to refer students who have already placed into college-level courses into developmental education.
- Study guided self-placement practices to determine the most effective practices for placing students into college-level math and English in the first year of college.
- Set standards based on evidence-based practice for use of guided self-placement for students without HSGPA.
- Annually collect, disaggregate, and annually review placement and developmental education enrollment data for the purposes of engaging in continuous improvement of placement policy and practice.
- Set common expectations for institutions for publishing course placement practices, placement thresholds for each placement measure and level of developmental education, and test preparation services in a clear and accessible manner for all prospective and admitted students.
- Facilitate systemwide institutional planning, professional development, and implementation support for institutional leaders, faculty, and advisors to ensure reforms are implemented with fidelity.
- Develop a policy that all new entering students enroll in college-level math and writing courses required for their program of study in their first year.
- Develop an implementation plan and resource allocation to ensure all new entering students meet with an advisor before registration of courses in their first semester. Advising should support:
    - Students’ choice of a program of study or academic focus area,
    - Registration for college-level math and other courses aligned to a student’s program of study or academic focus area

The Minnesota State system and the Minnesota Department of Education should collaborate to ensure more timely access to HSGPA and MCA scores for Minnesota High School graduates who apply to Minnesota State System institutions.

2. The Minnesota State system should fully eliminate prerequisite developmental education and fully scale corequisite support for admitted students who are assessed as needing academic support in college-level math and English.

   We recommend the following action steps to achieve this outcome.

   Minnesota State should:

   - Revise the current Developmental Education Corequisite Model Implementation Plan to fully eliminate prerequisite developmental education in reading, writing, and math and to scale the use of corequisite support for all postsecondary credential seeking students requiring academic support in reading, writing, math.
   - Replicate the successful Washington I-BEST model to allow sub-baccalaureate and applied associate degree students without a college-level math and English requirement to address math, reading, and writing basic competencies as a corequisite while enrolled in certificate program courses.
   - Devise innovative practices and collaborative solutions across institutions to enable small and/or rural institutions to effectively deliver corequisite support for all students.
   - Support institutional and cross-institutional efforts to develop and pilot practices for maximizing college-level completion rates for all students enrolled in corequisite courses, with special attention to students who are assessed at the lowest academic levels.
   - Annually collect, disaggregate, and review first year college-level math and English enrollment and completion rates, persistence, and credential completion for all students, to include those students placed into developmental education.
   - Facilitate systemwide institutional planning, professional development, and implementation support for institutional leaders, faculty, and advisors to ensure reforms are implemented with fidelity.

3. The Minnesota State system should pursue reforms that will accelerate the progress of English learners through ESOL, developmental education and college-level math and English courses.

   We encourage the following action steps.

   Minnesota State institutions should:

   - Support the ELL Workgroup and accelerate action on their recommendations. We call out the following Workgroup recommendations as having the potential for high impact:
     - Engage with TESOL experts to guide the application of multiple measures and guided self-placement.
     - Engage with TESOL experts to help standardize the process for the identification, assessment, placement and instruction of English learners in ESOL courses.
     - Collect, analyze, and report data related to ESOL students' success, persistence, and completion.
     - Award college credit and MnTC goal area fulfillment for some ESOL courses. We further recommend that these practices be standardized across institutions.

    - Allow ESOL course completers to enter transfer-level English rather than requiring completion of developmental reading/writing coursework.
    - Provide financial resources to support innovation and professional learning for ESOL and non-ESOL faculty.
- Information necessary for students to succeed in college should be made available in their native languages, possibly using technology-based tools.
- Create a working group to investigate challenges to providing ESOL courses at institutions with insufficient numbers of English learners to fill ESOL course sections.
- Examine various approaches to accelerate multilingual learners into college-level math and English courses, such as offering corequisite models for introductory college-level courses in which ESOL faculty partner with discipline faculty to support English learners.
- Engage multilingual learners to better understand the challenges and opportunities to more effectively meet their needs and increase their likelihood of postsecondary success.

The Minnesota Department of Education and Minnesota State system should explore whether Minnesota State institutions can review the ACCESS assessment results for English learner students who graduate from a Minnesota high school and are admitted to a Minnesota State System institution.

4. The Minnesota State Legislature and Minnesota State should allocate financial resources to fully implement reforms to course placement, developmental education, and services for English learners.

   We recommend the following action steps to achieve this outcome.

   Minnesota State should:

   - Develop a comprehensive implementation plan and budget for supporting the full-scale implementation of reforms. The plan should include the following activities:
     - Set a clear timeline for the design, implementation, and evaluation of reforms
     - Grants to institutions to support planning, design, implementation and evaluation of reforms.
     - Faculty release time from their teaching loads to engage in planning, design, evaluation and continuous improvement of reforms.
     - Professional development for academic administrators, faculty, advising, and other staff responsible for implementing reforms.
     - System facilitated planning, professional development, communities of practice and other cross-institutional opportunities to engage in meaningful deliberation and problem solving related to implementation of reforms.
     - Resources for institutions to support the development and piloting of institutional and instructional practices to address challenges to effective implementation and for meeting the needs of the full diversity of students placed into developmental education.

    - Resources to contract with national, system and institutional experts with deep knowledge and experience in implementation of reforms to identify the most effective planning, implementation, and instructional practices.
    - Evaluation of reforms using disaggregated student data as well as surveys and focus groups of faculty, administrators, advisors, students, and other key internal and external stakeholders.
    - Support for institutional administrators, faculty, advisors, and staff to engage in data review and substantive continuous improvement of practices to ensure improved and equitable outcomes for all students.
    - Provide grant writing support for individual institutions.
    - Engage academic administrators, faculty, staff, students, and community stakeholders to gain their commitment to reforms, identify implementation challenges, and shape implementation plans.
- Pursue philanthropic support from national, regional and local philanthropies to support the design and implementation of reforms.
- Reallocate existing resources, wherever possible, to support institution staff and faculty to implement reforms.

The Minnesota State Legislature should make a one-time multi-year appropriation to support the Minnesota State comprehensive implementation plan that includes:

- Set a reasonable timeline with Minnesota State for the use of resources for achieving full scale of reforms.
- Outline a schedule for the Minnesota State System to report progress on the implementation and scale of reforms.
- Resources to Minnesota State to collect data and draft progress reports.

5. The Minnesota State Legislature, in collaboration with Minnesota State should mandate ongoing state reporting of student outcomes for students impacted by Minnesota State system placement, developmental, and ESOL reforms.

   Metrics for the report should include:

   - Placement of all new entering students into developmental education
   - Enrollment of new entering students in prerequisite developmental education in math, writing, reading, and ESOL in the first academic year
   - Enrollment of new entering students in corequisite developmental education in math, writing, reading, and ESOL in the first academic year
   - Student outcome data for all new entering students disaggregated by placement into prerequisite developmental education, corequisite developmental education, placement in ESOL, or placement into college-level courses without the need for developmental education. Outcomes measures should include:
     - Completion of college-level math and English within the first academic year
     - Fall to Fall persistence
     - Graduation rates in 150% time (three years for community college students, six years for university students) for new entering states.

    - Transfer rates to a four-year institution within three years of entering college for community college students.
    - Time to degree
    - Credits to degree
- All data should be further disaggregated by:
    - Race/ethnicity to include racial subcategories within the traditional race/ethnicity measures included in this report.
    - Pell eligibility and/or high school Free and Reduced Lunch program participation.
    - Age
    - Gender
    - Part Time/Full Time enrollment status
    - English learner status
    - High school equivalency status (Minnesota high school graduate, out of state high school graduate, Adult Diploma, and GED/HiSet)
    - Participation in a rigorous high school curriculum, special education, CTE, or English proficiency instruction in high school.
    - Participation in Minnesota Adult Basic Education
    - Refugee/Immigration residency status

6. Minnesota State and the Minnesota Department of Education should conduct a study of postsecondary enrollment, persistence, and credential completion of students who participate in ABE and subsequently enroll in postsecondary education.

   The study should include:

   - All metrics included in recommendation five are relevant to ABE students.
   - Inventory of Minnesota State system institution and ABE provider practices to facilitate student application, admission, enrollment, and course placement.
   - Case studies of practices that have evidence demonstrating improved postsecondary outcomes.
   - Recommendations for the Minnesota Department of Education and Minnesota State System on how to most effectively transition ABE students into and through postsecondary education. Issues to consider are:
       - Defining the role of Adult Basic Education in the preparation of ABE students before they apply to a postsecondary institution, to include their role providing test preparation services for the TABE, GED, and HiSET for purposes of course placement.
       - Elimination of the referral of students who have been admitted to a postsecondary institution to ABE to complete prerequisite developmental education requirements.
       - Leveraging ABE capacity to support full scale implementation of corequisite support for students assessed as needing additional academic support.
       - Strategies for replicating effective partnerships between Minnesota State institutions and ABE providers to transition ABE participants into postsecondary education.

7. The Office of Higher Education and Minnesota State should implement strategies to increase student enrollment in postsecondary education among demographic groups essential to achieving Minnesota's postsecondary attainment goal.

   We recommend the following actions.

   Minnesota State should:

   - Scale access to admissions information in multiple languages on all institutional and the Minnesota State System websites.
   - Understand the experiences of refugee/immigrant populations, students of color, ABE participants, adult learners, and English learners to develop strategies to increase the enrollment of students from these backgrounds. Strategies should include:
     - Surveys and focus groups
     - Advisory groups of students and community representatives from these populations
   - Identify and support replication of promising practices at institutions that have improved enrollments among the identified populations.

8. Minnesota State should take steps to understand and address the concerns of faculty and staff as the system designs, implements, evaluates placement, developmental education and ESOL reforms.

   We recommend the following actions:

   - Make data accessible and transparent and engage faculty and staff in understanding and using data to design, implement and evaluate reforms. This can be done at the system level, and the system office should support faculty and staff to use data more effectively and efficiently at the institutional level.
   - Identify ways institutions can support and honor the contributions of faculty and staff.
   - Provide resources to help faculty and staff implement changes with stipends, release time, etc.

9. Minnesota State should include students and community representatives from traditionally underserved populations in the design, implementation, and evaluation of developmental education reforms. in student success reforms, particularly among those who are from populations that have been traditionally underserved by higher education.

   We recommend the following actions:

   - Include students effectively as partners in design, review and improvement efforts.
   - Make efforts to include students from marginalized communities and those that experienced challenges succeeding in the college environment.
   - Engage community leaders as partners in reform efforts by including them in reform discussions and seeking potential partnerships where community-based organizations can contribute to the effective implementation of reforms.
   - Compensate students and community participants for their time.

Areas for Further Study

Many Minnesota State students do not complete college-level math and/or English within their first year of enrollment. We recommend further research to identify the reasons underlying this

fact. Some of these non-completers will simply be students whose academic programs do not require college-level math or college-level English. Others will be students who choose not to enroll in those courses or delay taking them until later. Still others will be students who enroll in the courses, then fail or withdraw. Teasing apart these differences will provide greater insight into this possible problem and its solution.

While there is overwhelming evidence that students are more likely to succeed in corequisite models than in traditional prerequisite developmental education, it is also clear that too many students are not successful in corequisites. It is imperative that Minnesota State continue to support faculty innovation to develop evidence-based solutions to better support these students including how to expand access to and success in math leading to STEM degrees.

Due to limited placement data, we focused this study on the success of students who enrolled in developmental education courses. However, many students who are placed into developmental coursework do not enroll in those courses within their first year. To improve student success, we recommend Minnesota State pursue further research that looks at the characteristics of these students and the reasons for their non-enrollment in the courses they are placed into.

Table of Figures

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