Success in College Math and Writing in the MUS

Updated: June 2024

Overview of College Readiness for Montana Students and Impacts on Post-secondary Attainment

- Math and writing achievement significantly impacts enrollment and success in post-secondary education at all levels as well as opportunities for those entering directly into career fields.
- The number of students entering the MUS with additional support needs in math and writing to meet college readiness standards **has remained relatively flat over time**. In 2021, 31% of students entering the system demonstrated a developmental need in math and 16% of students in writing.
- Montana requires a minimum of two math courses for high school graduation. **It is one of only three states to not require three or four math courses for graduation**. Every Montana Career Pathway, including certificates and degrees in CTE fields, recommends four years of math in high school.

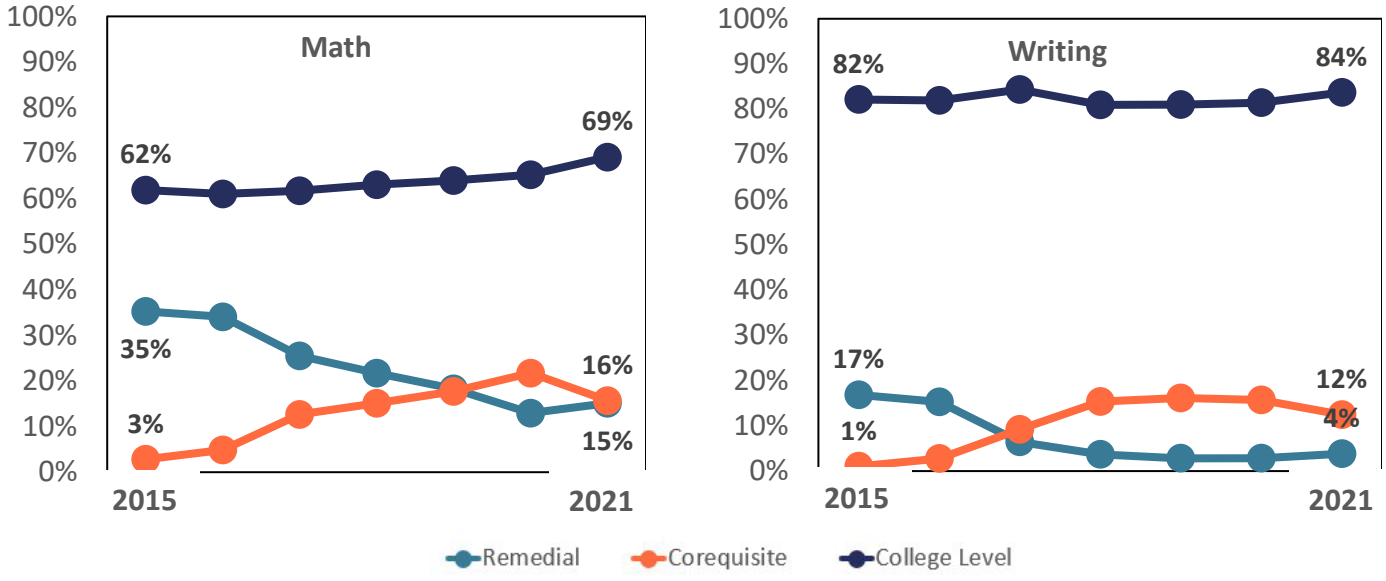
Supporting Math & Writing Success in the MUS

- **The MUS has undertaken comprehensive policy, pedagogical, and funding model reforms over the past decade to better support students who are underprepared in math and writing**.
- The MUS has transitioned away from a remedial model in which national averages show that less than one in ten students ever complete a degree to a co-requisite model in which students take a college-credit-bearing course and receive timely, targeted support. Students taking co-requisite courses have **increased course pass rates and increased likelihood of retention and degree completion**.
- The MUS has developed Math Pathways, a structure that identifies the entry-level math course directly related to each field of study at the certificate, associates, and bachelor's degree levels. Math Pathways **increases efficiency in degree paths, reduces financial costs to students, and increases academic success**.

Trends and Outcomes

Remedial Need

The rate of students entering the MUS needing additional support to build skills to be successful in entry level math and writing courses has **largely remained consistent over the past ten years**. With significant drops in math and writing achievement in state-wide assessments due to COVID impacts, the MUS anticipates **increases in under-preparedness.**



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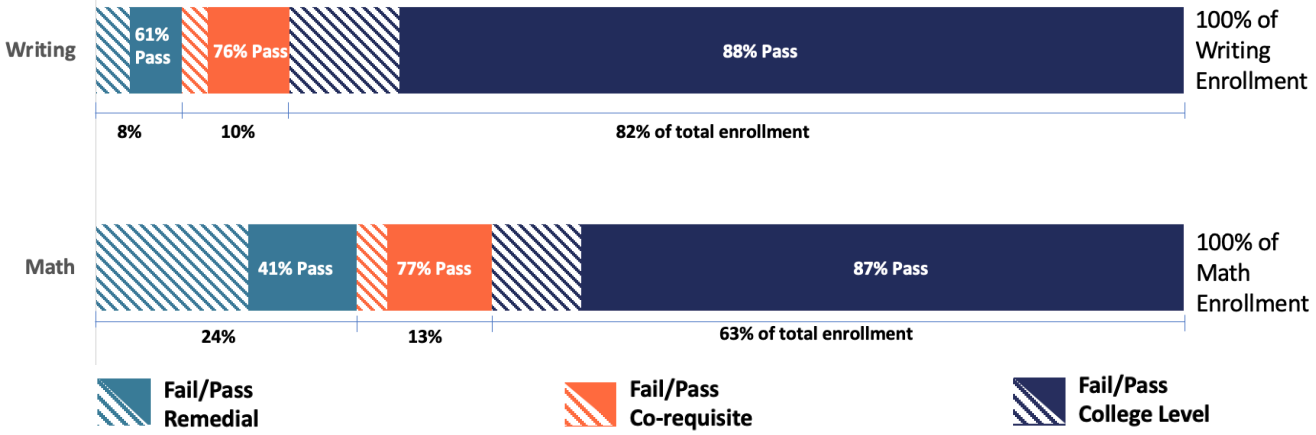
Trends and Outcomes

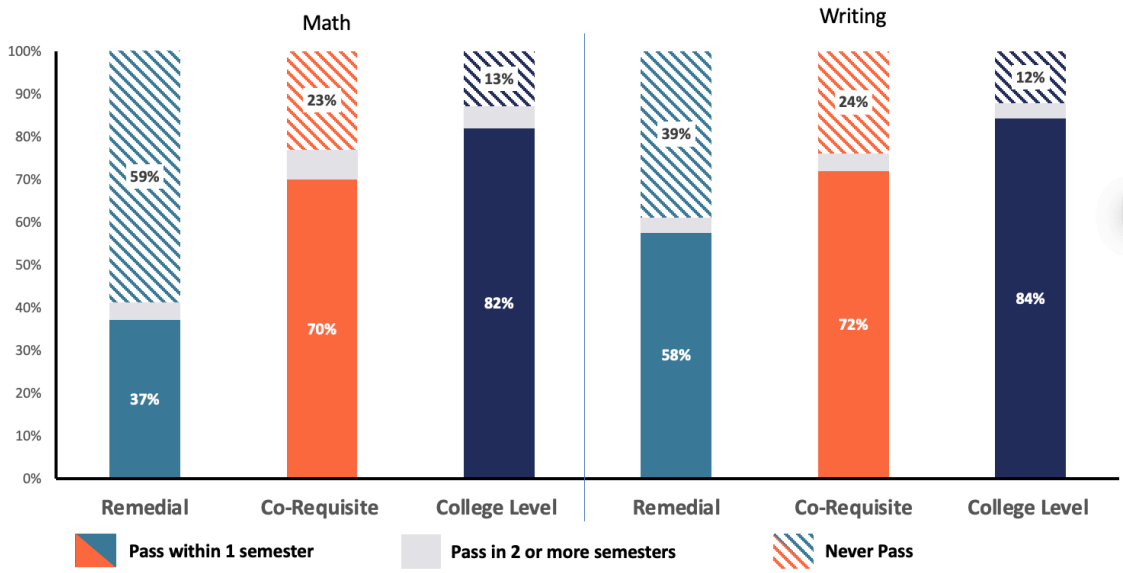
Increasing Math & Writing Pass Rates

By transitioning to evidence-based models of meeting remedial need where students are placed directly into credit bearing courses with targeted support, the MUS has increased course pass rates in entry level math and writing courses. Over the past 10 years, **students taking co-requisite courses pass their entry level math courses at 77% compared to only 41% taking traditional remedial courses.** The same holds true for writing where **corequisite pass rates are 76% compared to only 61% in remedial courses.**



Reducing Time & Cost to Math & Writing Success

Entry level math and writing course taking has significant impact on cost and time to a degree. **MUS students taking co-requisite courses passed their entry level math and writing courses faster, saving them money on course taking and eventually on cost to degree.** Co-requisite courses also reduce the number of students who never pass entry level math and writing.



Increasing Graduation Rates

Higher course pass rates, more efficient progress through early math and writing courses, and reduced rates of students who never pass all translate to higher graduation rates and reduced time to degree. **For MUS two-year institutions, students who take co-requisites are roughly twice as likely to graduate than their peers who have similar skill levels but take remedial courses.**