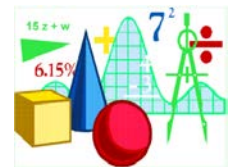


Colorado Math Pathways Task Force

“Strengthening student success in the study of mathematics; increasing timely completion of the appropriate gateway math course for the degree program; and ensuring transferability of credits.”

- Thirteen math faculty from four-year and two-year public institutions in Colorado.
- Facilitated by Ian Macgillivray of the Colorado Department of Higher Education
- Support from The Charles A. Dana Center and Complete College America (Building Pathways into Programs of Study initiative).



Multiple Math Gateway Courses at University of Northern Colorado

| Course | Percentage of enrollment | Select primary majors |
|--|--------------------------|---|
| Introductory Statistics | 37% | Pre-nursing, criminal justice, some social sciences |
| Quantitative Reasoning (Math for Liberal Arts) | 18% | Humanities, performing and visual arts |
| Calculus I and Precalculus | 16% | STEM |
| College Algebra | 15% | Business (prerequisite for business calculus) |
| Math for Elementary Ed | 14% | Elementary ed, early childhood |

Colorado MPTF Mission

- Draft a public statement on the importance of better alignment of and advising into gateway math courses.
- Identify and suggest alternative gateway math courses, that are rigorous and of quality in content and competencies, and that are appropriately aligned with the math skills students need to succeed in their programs of study.
- Work with representatives from academic disciplines and advisors to review math requirements and consider alternative courses to college algebra for non-calculus based majors.

What information was important to us?

- Inventory of math and statistics courses required for various majors at institutions in the state
- Enrollment patterns in various gateway mathematics and statistics courses at all institutions
- Talking to each other and our colleagues

A Few Findings

- Some institutions had very high numbers of students in college algebra and almost none in other non-calculus courses
- Some institutions had students distributed across various courses, such as quantitative reasoning, introductory statistics, college algebra, precalculus, and calculus
- Difference between patterns in four-years institutions were not directly related to mission (e.g. research vs. UG focus)
- Two-year institutions tended to have nearly all students taking college algebra

Recommendations

- Curriculum
- Advising
- Support and Professional Development
- Communication

Next Steps

- Communication
- Implementation