IMPACT on Mathematics Pathways and Developmental Course Redesign
Helen Burn, Highline College

Abstract:

Mathematics Pathways is an important and growing movement impacting the field of two-year college mathematics. This article clarifies what defines a mathematics pathway, describes three areas where the Mathematics Pathways movement will impact developmental course redesign, and highlights areas of IMPACT that provide guidance to practitioners who engage in Mathematics Pathways. The article addresses the need to focus on improving student learning in addition to bolstering completion rates when redesigning developmental courses in mathematics pathways. Second, the Mathematics Pathways movement will continue a trend toward fewer developmental mathematics courses and more college-level courses. This will impact instructional staff who primarily teach developmental courses and will require intensive professional development efforts, particularly when adopting corequisite models using just-in-time remediation. Finally, the Mathematics Pathways movement increases pressure to leverage student outcomes data to ensure that the different mathematics pathways are accessible and equitable for all students.

Helen Burn is an instructor in the Department of Mathematics and director of the Curriculum Research Group at Highline College, where she has served as both chair of the Pure and Applied Sciences Division and the mathematics department coordinator. Her research focuses on community college mathematics curriculum. She is currently Principal Investigator on the NSF-funded grant, Transitioning Learners to Calculus in Community Colleges (NSF IUSE 1625918) and chair of AMATYC’s Pathways Joint Subcommittee. Helen received the 2014 Washington State Two-Year College Mathematics Education Reform Award for her curriculum work within her college and state. She holds a BS from The Evergreen State College, an MS in mathematics from Western Washington University, and a PhD in higher education from the University of Michigan.