

Dana Center Mathematics Pathways

Intervention Snapshot | Developmental Education

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WHAT WORKS CLEARINGHOUSE™

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Not all students enroll in college prepared for college-level coursework. In response, many colleges attempt to identify students who are underprepared for college-level courses and then place them into developmental courses intended to help them succeed. These courses are usually offered on a non-credit basis and do not count toward graduation. As a result, students enrolled in developmental education can take longer to graduate than peers who enroll in credit-bearing college courses from the outset.

Several interventions have been designed to accelerate students' transition from developmental to credit-bearing college courses, including the *Charles A. Dana Center Mathematics Pathways*, hereafter referred to as *Dana Center Mathematics Pathways* or *DCMP*. *DCMP* offers multiple

math pathways aligned to programs of study, accelerated enrollment in credit-bearing college math courses, integrated student supports, and math instruction that incorporates evidence-based curricula and pedagogy.

This What Works Clearinghouse (WWC) report, part of the WWC's Developmental Education topic area, explores the effects of *DCMP* on student progression in developmental education and progression in college. The WWC identified seven studies of *DCMP*. Three of these studies meet WWC standards. The evidence presented in this report is from studies of the impact of *DCMP* on community college students—including Asian, Black, White, and Hispanic students—in urban, suburban, and rural settings.

What Happens When Students Participate in *DCMP*?

The WWC found that implementing <i>DCMP</i> :	Effectiveness rating	Study findings	Evidence meeting WWC standards (version 4.0)	
		Improvement index (percentile points)	Number of studies	Number of students
Is likely to increase progression in developmental education	Positive effects	+21	3	46,012
Is likely to increase progression in college	Positive effects	+8	2	11,163

Note: The improvement index can be interpreted as the expected change in percentile rank for an average comparison group student if that student had received the intervention. A positive improvement index does not necessarily mean the estimated effect is statistically significant.

FINDINGS ARE BASED ON:

3 studies with 46,012 students in at least 27 community colleges in Texas



STUDENT CHARACTERISTICS:

Gender: 63% female	Race: 70% minority	Ethnicity: 48% Hispanic
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What Does *DCMP* Cost?

The cost of *DCMP* is reported in one study reviewed. Rutschow et al. (2019) reported the average *DCMP* start-up cost for each college was about \$140,450 over two years. Start-up costs included administrative costs to plan and align courses and conduct meetings with college leadership, training for faculty and advisors, and time spent revising curricula and preparing to teach the new courses.

The ongoing costs of implementing *DCMP* beyond the existing costs to deliver traditional developmental math courses were, on average, \$19,340 per year at each college or \$132 per student. The Dana Center contributed an additional \$295,057 in estimated start-up costs toward aligning math pathways at each college and statewide, developing math curricula, and hosting initial and ongoing faculty professional development.

LEARN MORE



Read more about the *DCMP* intervention and the studies summarized here in the [Intervention Report](#).

Contact the [The Charles A. Dana Center](#) at The University of Texas at Austin for additional information on implementing *DCMP*.