QR a Viable Alternative to College Algebra

Non-STEM students have a higher success rate in quantitative reasoning than in traditional college algebra.

![Chart showing percentage of students passing the Foundations of Quantitative Reasoning and College Algebra Standalone courses by race/ethnicity.]

Source: Moena, R. & Marshall, A. (2020, April). *A new approach to mathematics: Increased success rates for ALL students at the University of Cincinnati* (Steps to Success series). Denver, CO: Strong Start to Finish, Education Commission of the States. Notes: The data used to create this chart came from Table 2 of the report. Pass rate is defined as the percentage of students earning a grade of C or above.

Historically, college algebra has been the gateway math course required for most majors. In recent years, however, community colleges have been experimenting with alternative gateway math courses for non-STEM majors. One college that is leading the way is the University of Cincinnati (UC) in Ohio. UC created an alternative math course called the Foundations of Quantitative Reasoning (FQR) that is more aligned with a student's program of study and is proving to be highly successful with its students.

From the fall of 2017 to the spring of 2019, UC students in most race/ethnic groups showed an increase in pass rates in FQR as compared to the standalone college algebra course. LatinX and multi-race students saw the largest gains, 12 and 13 percentage points respectively. This Points of Interest shows that non-STEM students have a higher success rate in an alternative gateway math course, such as Foundations of Quantitative Reasoning, than in traditional college algebra.

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