

ZMATH 2016d.00141

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Insights from the MAA national study of college calculus.

Math. Teach. (Reston) 109, No. 3, 179-185 (2015).

Summary: Over the past five years, the Mathematical Association of America, with support from the National Science Foundation, has explored the teaching of mainstream Calculus 1 at the postsecondary level, where by “mainstream” we mean those courses that can be used as part of the prerequisite stream to more advanced postsecondary mathematics. We surveyed 213 colleges and universities, 502 instructors, and more than 14,000 students to learn who takes Calculus 1 in college, why they take it, their preparation for this class, and their experience in this class. We also began to identify the characteristics of those classes that are most successful in encouraging students to continue their pursuit of mathematics. Following up on these surveys, teams of researchers visited twenty of these institutions, including community and technical colleges, liberal arts colleges, and public and private universities, to see firsthand what some of the best programs were doing. Here are some findings from this study, findings that should be of interest to those who are preparing students to succeed in college-level mathematics. A full account of the results of the study has been published in [*D. Bressoud, V. Mesa, and C. Rasmussen, Insights and recommendations from the MAA national study of college calculus. Washington, DC: MAA Press (2015)*]; links to this report and research papers from the study are posted at www.maa.org/cspcc. (ERIC)

Classification: C25 D35 C65 I15

Keywords: college students; college mathematics; calculus; national surveys; academic persistence; best practices; gender differences; mathematics achievement; socioeconomic status

<http://www.nctm.org/Publications/Mathematics-Teacher/2015/Vol109/Issue3/Insights-from-the-MAA-National-Study-of-College-Calculus/>