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Naneh Apkarian*, naneh.apkarian@gmail.com, and Jessica Hagman, Chris Rasmussen, David Bressoud, Estrella Johnson, Sean Larsen, Jessica Gehrtz, Kristen Vroom and Matthew Voigt. The Progress through Calculus Project: A National Study of Precalculus through Calculus 2 Programs.

In this presentation we report on findings from the five-year Progress through Calculus project. This project, begun in 2015, is a national investigation of the factors that influence student success over the university precalculus through single-variable sequence required of most STEM majors. The project is being conducted in two phases. Phase 1, now complete, was a survey of all mathematics departments that offer a graduate degree in mathematics. From this, we report the viewpoints of departments about features shown to support students' success, as well as the extent to which these features are being implemented across the country. Phase 2, currently underway, consists of 12 in-depth longitudinal case studies to explore the nuanced relationship between student success and departmental implementation of features shown to support student success. From these data, we report descriptive statistics from repeated instructor and student surveys that cover a range of student attitudes and beliefs, instructional practices, and departmental norms and culture. Lastly, we will discuss our ongoing analysis of cross cutting themes such as department change efforts, course coordination, course variations, and diversity, equity and inclusion, and related data collection to these four themes. (Received September 25, 2018)