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Webb, Robert Tubbs, Matthew Voigt and Howard Gobstein. Student Engagement in Mathematics through an Institutional Network for Active Learning (SEMINAL). Preliminary report.

Student Engagement in Mathematics through an Institutional Network for Active Learning (SEMINAL) is investigating departmental commitments—particularly active learning strategies—that improve student learning in the Precalculus to Calculus 2 (P2C2) sequence. Changing department culture, norms, and practices to support widespread use of active learning is notoriously difficult, and case studies of departments that have successfully made such changes are rare. We will highlight practices and policies of six, research-oriented mathematics departments that have made and sustained considerable progress in infusing active learning into this sequence. In particular, we note how departmental and institutional leadership; P2C2 structures such as course coordination; use of data; student resources such as learning or tutoring centers; and professional development have been mutually supportive to initiate, implement, and sustain active learning in P2C2 courses. However, there is little attention to equity and inclusive practices and hence we call for departments to address these issues. Now in a second phase, we have added nine institutions to our network to study how we might adapt our knowledge to enable success in efforts to incorporate active learning into their P2C2 sequence. (Received September 14, 2018)