

Case Studies of K-16 Learning Communities to Improve Science and Mathematics Teaching in Four Regions in Georgia

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This paper describes the results from four regional case studies on the effectiveness of science and/or mathematics learning communities in very demographically different regions of the state of Georgia. The case studies include urban and rural districts, minority and majority districts, high and low poverty districts and districts with increasing Hispanic populations. These learning communities are being implemented as a part of the Partnership for Reform in Science and Mathematics (PRISM) initiative to improve teaching and learning in science and mathematics in four regions of Georgia. A unique feature of the learning communities is the systematic participation of higher education science and mathematics faculty with K-12 educators. The K-16 learning communities are being implemented differently in the four regions, in part because of different types of colleges and universities working with local K-12 education systems and variation in the school districts participating. The higher education institutions include major research universities, state universities and two year colleges. Qualitative results show that learning communities across the four PRISM regions in Georgia have been successful in linking higher education and K-12 faculty in partnerships to study and begin implementing best practices in science and mathematics, to study the new Georgia curriculum to determine what professional learning is needed to successfully implement the new curriculum in diverse school settings, to identify resources that are helpful in professional learning, and to engage participants in action research to determine the effectiveness of innovative strategies in the classroom.

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