

Guest Presentation

The Appalachian Mathematics and Science Partnership and the Kentucky Early Mathematics Testing Program are two examples of how Kentucky's postsecondary institutions and school districts are working together to improve the quality of mathematics education throughout the Commonwealth.

Appalachian Mathematics and Science Partnership

The University of Kentucky, partnering with the Appalachian Research Systemic Initiative, was awarded \$22 million October 2002 by the National Science Foundation to provide professional development for mathematics and science teachers throughout Appalachia. The AMSP comprises 52 school districts and 9 postsecondary institutions in Kentucky, Tennessee, and Virginia. It addresses teacher and administrator preparation, K-12 professional development, parent and community engagement, and the development of research to advance rural education reform. The program provides UK graduate students as substitutes for teachers in professional development programs and trains teachers as early as the elementary level in teaching and assessment. The Kentucky GEAR UP program is a partner in this effort.

Kentucky Early Mathematics Testing Program

The KEMTP is funded by the Council on Postsecondary Education and administered by Northern Kentucky University, with online capacity provided by the University of Kentucky. KEMTP completed its second full year in 2003.

The KEMPT staff was asked to share its successful Web site and test with representatives from Iowa, North Carolina, Ohio, Oklahoma, Pennsylvania, and Washington at a conference in Ft. Mitchell last August. The program is designed as a diagnostic for tenth and eleventh graders to reduce the need for postsecondary remediation. The program directors work closely with high school mathematics teachers both in developing test questions and in determining ways to link high school mathematics teaching with postsecondary expectations. The KEMTP test has been shown to be consistently and remarkably effective in predicting final grades in college algebra at the University of Kentucky and Northern Kentucky University. This data will be supplied to Council members. The KEMTP program directors are expanding the program's outreach to mathematics teachers through meetings with local P-16 councils. In these sessions, which serve as content-based professional development for teachers, district teachers and postsecondary faculty closely examine how the KEMTP test and the ADP benchmarks in mathematics can be used at the district level to raise the quality and level of mathematics preparation.

Paul Eakin, professor of mathematics at UK, is principal investigator of the AMSP, and he directs the online component of the KEMTP. Steve Newman, professor of mathematics at NKU, directs the KEMTP. They will report to the Council on how these projects can raise the quality of mathematics education in Kentucky and help Kentucky's high schools meet the ADP benchmarks for college and workplace readiness.