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The Louisiana Math and Science Teacher Community. Preliminary report.

The Louisiana State University Master of Natural Sciences degree (MNS) is administered by LSU Graduate School the LSU College of Science. It provides the depth and breadth of study in the sciences that is required of science professionals. With major support from NSF, USDoE and other sources, the LSU MNS has become a hub in the Louisiana Math and Science Teacher Professional Community, acting as an exchange for ideas and practices, providing access to mathematical and scientific knowledge in forms that are useful to teachers and supporting a culture that seeks and employs empirical evidence to deal with the problems of STEM education. In this talk, we will address several questions related to the MNS degree program and the community of K-12 teachers and university faculty that has grown around it. How were grant funds used to build the community? What are the benefits to K-12 mathematics education and what evidence supports claims of benefit? What challenges does the MNS face in sustaining the professional community in the future? We pay particular attention to reporting what we have found out about how mathematical knowledge must be engineered and packaged in a graduate degree program if it is to serve the professional community of mathematics teachers. (Received August 01, 2012)