
AMS Task Force on Excellence in Mathematics Scholarship: Interim Report

Executive Summary

The AMS Task Force on Excellence in Mathematics Scholarship, with funding from the National Science Foundation and the Exxon Education Foundation, has the mission of identifying the critical issues related to quality mathematical experiences for students at doctoral institutions and addressing them in a way that will allow departments to make the case for assuring excellence in mathematics education within a research environment.

In the work the committee has done up until now, it has become apparent that there are three guiding principles crucial to the success of a department: understanding the mission of the university and role of the mathematics department within this mission; establishing an environment where faculty and students can be most creative; and finding the resources, both human and financial, to accomplish the goals of the department.

In a series of focus discussions with over a hundred chairs, deans, and departmental administrators, the Task Force has identified the teaching of calculus and precalculus, strengthening the major, preparing graduate students for the profession, coordinating and communicating with other departments and the administration, enhancing opportunities for underrepresented groups, and linking with K-12 educators as critical issues facing departments. The Task Force is working to clarify the link between mathematics research and mathematics teaching. Successful departments have acknowledged the importance of undergraduate instruction as part of their mission within the university while maintaining high standards for their graduate programs and faculty research. Through its work, the Task Force has identified several approaches that improve mathematics programs and has located departments that have implemented some of these effectively. It has be-

come clear that in every situation from providing effective calculus and precalculus instruction to establishing a successful graduate program, departmental leadership has played a crucial role in identifying the issues, in formulating approaches to address them, and in developing the needed resources.

The Task Force will prepare a full report, planned for 1997, that will include a resource book providing examples of successful strategies and data necessary for implementing them. More focus discussions with faculty, deans, and recent graduates who are currently teaching are planned for the next year. Visits to universities that have exemplary programs are planned to gather detailed information for inclusion in the resource book.

Members of the Task Force:

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Note: The summary and report of the Task Force on Excellence will be posted on e-MATH under "Professional Information and Services".