Statistical Abstract of Undergraduate Programs in the Mathematical Sciences in the United States

Fall 2005 CBMS Survey

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> Ellen Kirkman David Lutzer James Maxwell Stephen Rodi

Foreword

Every five years since 1965, the Conference Board of the Mathematical Sciences (CBMS) has sponsored a study of undergraduate mathematics and statistics in U.S. colleges and universities, and this is the ninth report in that series. With NSF support the CBMS2005 project surveyed a stratified random sample of three separate universes: two-year college mathematics programs, mathematics departments in four-year colleges and universities, and statistics departments in four-year colleges and universities.

As part of an ongoing cross-sectional study, the CBMS2005 project collected data on enrollments, bachelors degrees granted, and faculty demographics in each of the three universes mentioned above. Results of these studies appear in Chapters 1, 3, 4, 5, 6, and 7 of this report, with global data appearing in Chapter 1 and more fine-structured information in the other chapters. For example, data on the total number of bachelors degrees granted in the 2004–2005 academic year appear in Table S.4 of Chapter 1, and in Table E.2 of Chapter 3, where those data are broken out by the type of department through which the degrees were granted.

In addition, based on proposals from various professional society committees, the CBMS2005 project studied certain special topics that were judged to be especially timely. These were the mathematical education of pre-service teachers, academic resources available to undergraduates, dual-enrollments, mathematics in the general education curriculum, requirements of the national mathematics major, and assessment practices in college and university mathematics and statistics departments. Reports on these special projects appear in Chapter 2.

The CBMS2005 project differs from its predecessors in that the data in this report came from two separate surveys. Historically, CBMS surveys have not been the only source for faculty demographic data in the mathematics and statistics departments of four-year colleges and universities. A group of mathematical sciences professional societies have combined to sponsor a Joint Data Committee (JDC) that collects and publishes annual demographic data in the Notices of the American Mathematical Society, and in 1995 and 2000 there was considerable overlap between JDC and CBMS efforts to collect faculty demographic data. In response to complaints from department chairs about that overlap, the JDC and the CBMS2005 Steering Committee agreed to coordinate their efforts in fall 2005. See Chapter 4 for details.

To put the CBMS2005 data in context, this report sometimes refers to earlier CBMS reports (called CBMS2000, CBMS1995, etc.) and to other professional society reports. Publication data on the other reports cited appears in the CBMS2005 bibliography section.