962-E1-324   **George W. Cobb*** (`Gcobb@MtHolyoke.Edu`), Department of Mathematics and Statistics, Mount Holyoke College, South Hadley, MA 01075. *Can Real Data and Real Mathematics Coexist in a Sophomore Level Course?*

College mathematics departments are in an awkward position when it comes to statistics. Nationwide, mathematics enrollments are declining, while those in statistics show strong growth. Surely part of the reason for the decline in numbers of math majors is the perceived job market in mathematics. This, even though a major in mathematics is ideal preparation for a career in statistics, and the opportunities for graduate support and jobs in statistics are plentiful. Handled well, the growth in statistics enrollments ought to help us reverse the discouraging trend in undergraduate math enrollments. Unfortunately, the typical applied statistics course has too little mathematics to count toward a major in mathematics, and the typical mathematical statistics course does a poor job of showing students what the practice of statistics is really like. In my talk I will describe three courses that could be taught by statisticians in departments of mathematics. These courses have three features in common: (1) they are serious about data and contemporary applications of statistics, (2) they are also serious about mathematics, not just as a tool, but as a subject in its own right, and (3) they are accessible to sophomore math majors or even first-year students with advanced standing. (Received September 11, 2000)