



**The University of New Mexico**

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To: Vera Norwood, Interim Dean  
From: Alejandro Aceves, Ed Bedrick, Ron Christensen, Sam Efromovich, Gabriel Huerta, Aparna Huzurbazar, Justin Kubatko, Laura Salter, Ron Schrader.  
Cc: Reed Dasenbrock, Interim Provost  
Re: Department of Statistics.

We were told that you think this is a good time to explore the possibility of forming a Department of Statistics. The statistics group in Math and Statistics remains very interested in creating such a department. We would like to know what information you need from us to further this goal.

To review the issues, statistics and mathematics are separate disciplines that have separate profession organizations and separate scientific journals. Most major universities have statistics departments separate from mathematics. Nationally, good statisticians and statistics programs are expected to be housed in statistics departments. A separate department will greatly facilitate recruitment of excellent faculty and graduate students (who are frequently counseled not to go to departments that are joint with mathematics). In addition, the presence of a separate Statistics Department will increase our visibility within the UNM community, thus promoting increased interdisciplinary work with other academic units on campus. Such a separation would be by mutual consent of the mathematics and statistics groups and will in no way will prevent collaborations between faculty of the two departments when mutual research/educational opportunities arise.

It has long been recognized that the discipline of statistics is not well served by being viewed as a branch of mathematics. While statisticians use mathematical reasoning, statistics is really about the collection and analysis of data. Residence within the Department of Mathematics and Statistics creates several problems. Most statisticians are not in the business of contributing to the theory of mathematics and, while we share the goals of contributing to the development of science, we do it in very different ways, which creates a fundamental conflict in the norms by which mathematicians and statisticians evaluate their work. The presence of statistics within a department dominated by mathematics makes many applied statisticians and users of statistics leery of consulting our group. Historically such fears are based on a perception that we would be interested only in mathematical theory and not in applied work. Evidence of this fear exists in the fact that courses in statistics are offered by numerous departments across the college and university. It would be in the university's interest to consolidate such courses but any consolidation can succeed only by maintaining close contact with customer departments. Perhaps the only way to ensure permanent close contact is through a system of joint appointments (a common structure for statistics departments). We would like to encourage broad participation in a new department by arranging joint appointments for current faculty in other departments whose primary activities are statistical. Such a system would not be realistic in the current joint Mathematics and Statistics Department.

A separate Statistics Department is certainly viable at UNM. We already have distinct degrees and course rubrics for Stat and Math. We currently have 7 tenure track statistics faculty, down 2 from last year because faculty were hired away by Minnesota and Georgia Tech. The 3 full professors in Statistics have been honored as fellows of either the American Statistical Association or the Institute of Mathematical Statistics. We feel that the younger faculty are equally strong. The statistics program has 59 graduate students of which 15 are teaching assistants, 5 are research assistants, and 25 have full time jobs. Four additional graduate students just passed their comprehensive examinations and need faculty research advising. The 59 graduate students constitutes a majority of the graduate students in Mathematics and Statistics. There are 33 undergraduate Statistics majors. The statistics program generates a large number of graduate and undergraduate student credit hours. For the 2004-2005 academic year, we had 1927 student enrollments in 100/200 level courses, 294 at the 300 level, and 375 taking 500 level courses. (These compare, respectively, to 1366, 225, and 261 for 2000-2001.) The 500 level students constitute over 50% of the joint department's enrollment.