1077-G5-2780John R Ramsay* (jramsay@wooster.edu), Dept of Mathematics and Computer Science, The
College of Wooster, 1189 Beall Ave, Wooster, OH 44691. Tires, Insurance and Clutches:
Applications of Undergraduate Consulting. Preliminary report.

Most consulting opportunities for academics in business, industry and government occur at the professional or graduate student level of academia. There are, in fact, many opportunities for undergraduate mathematics students to do important consultant work for clients as well. The College of Wooster Applied Mathematics Research Experience(AMRE) is a summer program that employs students to work as consultants in the surrounding region. Students generally work in teams of three with a mathematics or computer science faculty member acting as advisor. Clients of the program come from business, industry, government agencies, and service organizations. This paper will outline the AMRE program and present the details of the following three representative projects completed by the undergraduate teams in the program:

- 1. Development of a tool for the analysis of the cross sectional geometry of complex steel cord structures.
- 2. Development of a market competitiveness metric to be used in analyzing insurance pricing elasticity.
- 3. Customizing an economic order quantity model in an automotive industry component part lot-sizing problem.

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