INTRODUCTION: This paper is a summary of an invited talk given to the Business Session at SUGI 79. Here I will briefly describe (1) a primary user of SAS in industry, (2) the structure or characteristics of an O.R. group, (3) O.R. at Milliken, (4) users of SAS at Milliken, (5) some areas of application, (6) some types of problems, and (7) a few applications in manufacturing, marketing and development.

THE COMPANY: Milliken is a large privately owned textile corporation with approximately 75 manufacturing plants located mainly in the southeast with some in New England and Europe. The marketing headquarters is in New York but the central headquarters and research facilities are in Spartanburg, S.C. We're very proud of our research and information facilities as is expressed by the slogan "Textile Leadership Through Research". The major products are textiles, industrials, chemicals, and packaging.

OPERATIONS RESEARCH: Operations Research can be broadly defined as applying the scientific method (Research) to any activity (Operations) involving men, machines, materials or money to perform some useful function. Recently Cox and Ledbetter (1 and 2) conducted a study to characterize a typical O.R. group. According to their study:

- 75% of the O.R. Departments are corporate or division staff.
- 85% of the directors have at least a Master's degree (25% in Business, 10% in Chemical Engineering, 14% I.E., 10% Math, 10% O.R.).
- Their main areas of application are marketing, production, personnel, finance.
- The most frequently used techniques are statistics, math programming, simulation, network models.
- 73% of O.R. staff have at least a Master's degree (21% in Business, 14% O.R., 10% Math, 7% Chemical Engineering, 7% I.E., 5% Statistics).
- There is a strong correlation between background of directors and background of their staff.

USERS OF SAS AT MILLIKEN: The O.R. Department is by far the greatest user of SAS at Milliken. However, due to the infiltration of all areas of a business by MBA's and others with a quantitative background, there are several other users. For example, we have users in the areas of:

- Textile and Chemical Research
- Plant Computer Systems
- Corporate Systems
- Market Research
- Corporate Planning
- Manufacturing

AREAS OF SAS USE: Because of our wide scope of problems, we use SAS in almost every area imaginable. We use SAS in:

1. Manufacturing: for quality control, quality reporting, quality improvement and process improvement.

REFERENCES: