



these two commodity categories to the 19 stores. This equates to a saving of slightly more than \$700 per week and compared favorably with actual results achieved by the firm handling and consolidated deliveries, the dry grocery wholesaler.

In the second experiment, an analysis was made of the effect of varying daytime traffic congestion and distribution costs of separate bakery deliveries. The comparison was made between these costs and consolidated delivery costs developed for dry grocery and bakery items in the first experiment. The simulation results indicated a range of potential savings, through consolidation, from \$200 per week to \$724 per week.

The third experiment compared a combined delivery of meat and produce and a separate delivery of milk with a combined delivery of meat, produce, and milk. Simulation results indicated that an annual saving of \$5,000 could be realized through this effort of further consolidation.

Productivity improvements noted in the three experiments were a direct result of improved utilization of equipment and labor. Where extensive capital expenditures are required to effect consolidation, the savings might possibly be less dramatic.

We believe the results of this study can contribute to a greater appreciation of the potential benefits of consolidated deliveries. More importantly, this research has produced an effective tool which can supplement managerial judgment and improve the decision making process. With CONSOL, a firm can analyze its own particular situation and predict the advantages or disadvantages of consolidation without making physical changes in the operation.

\*\*\*\*\*