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## SESSION I

### EXPLAINING PRODUCTIVITY DIFFERENCES IN GROCERY WAREHOUSES

by

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#### Problem Addressed

Food distribution costs have escalated in recent years due to rising labor costs and stagnant productivity. Yet distribution managers wishing to improve productivity typically do not know which aspects to address first. This analysis will assist in the identification of those warehouse characteristics associated with high labor productivity.

#### Methodology

Data from the "Cornell Report on Productivity in Grocery Distribution Centers" are analyzed using factor analysis. Inbound (receiving and storing) and outbound (selection and shipping) operations are analyzed separately.

#### Major Findings

Inbound productivity is associated with either strong unionization or high

supervisory/labor ratios. Unions, while raising wage rates, do contribute to coordination, a function which otherwise must be provided by management. Physical characteristics of the warehouse including crowding, slot selection criteria, etc. do not effect productivity strongly. Outbound productivity is even more strongly associated with supervisory levels, yet many firms misallocate supervisors. Incentives are shown to be a viable alternative to high supervisory levels. Larger warehouses are found on the average to have lower inventory turnover levels.

Managers should emphasize labor coordination over physical changes in the warehouse. This may be accomplished through higher supervisory levels or through strong union organization (inbound) and incentives (outbound).

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