

Transportation Logistics—Inner City

Presented by DALE L. ANDERSON

Outlines current USDA work in Inner City movement of food produce and suggests potential future research projects.

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My article in the contributed papers issue of the Journal of Food Distribution Research, "Problems in Delivering Food to Low Income Urban Areas," posed a number of questions of concern to those of us interested in reducing the cost of distributing food to all segments of our population. I first collected these thoughts on paper over four years ago and have discussed these problems with a wide range of people in various public and private agencies. I believe these discussions have been helpful in getting a larger, though still inadequate, group of researchers interested in these problems.

The purpose of this presentation is to try to give an up-to-date report on what is being done about these problems. The President's recently stated concern with inner-city minority businesses, the poor record of productivity shown recently in food distribution, and the statement in Bill Applebaum's paper about the rising costs of space for retail outlets all somehow seem related.

By 1975, 70 percent of the U.S. population will reside in 224 metropolitan areas. Slightly over half of the population lives in the suburbs.¹ That makes approximately 30 percent of the U.S. population living in the urban area. Also, some parts of suburbia are taking on urban characteristics and problems.

Several studies relating to urban delivery were presented at an Urban Commodity Flow Conference, December 1970, sponsored by D.O.T. and the Highway Research Board. Some significant figures are: In a typical city 200 intra-city truck trips per day per 1,000 residents; 80 percent of the trips within 6 miles of the city's center; one-fourth of the trips carried no goods at all;

many trucks are idle 50 to 90 percent of the day; most trips occur between 9 a.m. and 5 p.m., 5 days a week; most firms have no knowledge of their actual delivery cost. Some further data are: one-third of goods tonnage movement that is consumer-oriented is food or agricultural products; since another third is fuel and coal, the heavy segment of inner city goods delivery is food related.²

Therefore, I think we have a unique opportunity in the food field to develop improvements in the system that will not only reduce food distribution costs but also will serve as an example to other urban goods movement. This is especially important when you consider that while others researching in this area — transportation researchers and urban planners — are getting statistical information for long-range planning of transport and highway network or regional land planning, practically none of this research is to improve the operations of the distribution system.

Work on problems of receiving food in 10 convenience stores and 10 small urban stores is currently under way by Penn State University. The Transportation Research Branch is just completing a study of 5 ice cream distributors' delivering operations. Some examples are: A Pennsylvania supermarket received 157 to 179 deliveries per week. A Pennsylvania convenience store chain averaged 70½ deliveries per store per week. A Virginia ice cream distributor's driver opened the doors of his truck 119 times during one day's deliveries.

Horrible examples you may say, but some of the things going on within a few feet of this hotel are even more surprising. This morning 100 feet from this room I saw a man with a rope and pulley with a small iron cage attached pulling up case goods one at a time to a third floor loft. The delivery and receiving problems in the older section of the city's core seem to be extreme examples of poor and costly handling practices.

The work we are doing "in house" and with Penn State are a start. We plan additional studies on vendor delivery routes for many kinds of food vendors and for florists. We plan studies of salvage and package wastes, and we plan further studies of the refrigeration on delivery trucks.

Other than some delivery truck routing work, we cannot find any other research in this vital area to provide improvement in operations.

I believe it is essential that more organized research be generated in this vital area.

Editor's Note:

Discussion following presentation of the papers brought forth these issues:

1. *More emphasis needs to place by stores to obtain qualified people in store engineering positions.*
2. *The new Federal laws regulating meat processing plants, was found not to be only cause for closing of meat processing plants.*
3. *It was also brought out that the adoption rate of recommendations made by the numerous research projects across the country is very low.*
4. *Also discussed were the advantages and disadvantages of carts both rigid and collapsible, pallets, lift gates, and other handling equipment for both retail and warehouse use. Elevated dock was considered better for all around use because all vendors could utilize these facilities.*
5. *The need for more studies on the economies of back-hauling were indicated. This included the feasibility of using carts for back-haul.*
6. *The advantages and disadvantages of family grouping in warehouse layout.*

LITERATURE CITED

Article 131 — Transportation Logistics — Inner City. . . .

¹ The State of Research and Data on Urban Goods Movement and Some Comments on the Problem. Wilbur S. Smith, Urban Commodity Flow Conference, Warrenton,

Virginia, December 7, 1970.

² The Structure and Economics of Intra-Urban Goods Movement, Robert T. Wood, Tri-State Transportation Commission, December 1970.