An Illustration of Mapping as Applied to Locating Retail Stores in a Metropolitan Area

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Statistics of the United States Department of Commerce show a considerable mortality of small retail businesses in metropolitan areas. Recent field research in the Boston, Massachusetts, area has not only revealed numerous failures of retail units within the first year of operation, but indicated that some locations have experienced repeated failures.

The failure of retail units to continue in business for a profitable period of time is partly the result of an ignorance of urban patterns. Such patterns include the distribution of population, the network of transportation, the density of pedestrian and vehicular movement, and the location and character of retail shopping centers. These patterns change rapidly.

One factor of urban change is the fast growth of population which produces shifts in density. Movements of people away from the urban core and toward the fringe of the city have caused the relative or absolute decline of some business sectors and shopping centers and the rise of others.

Furthermore, the changing economic base of some cities and the increasing vigor of city and regional planning have accelerated modifications of patterns as reflected in the construction of arterial highways, establishment of mass housing projects, plotting of new industrial sites, and re-zoning. The prospective merchant must anticipate and study these developments and their effects wherever possible before his store is committed to an urban or suburban location and a physical site.

Urban patterns are most clearly and easily discerned on maps. A series of maps of the Boston metropolitan area, prepared at the Institute of Geographical Exploration, Harvard University, illustrates several ways in which maps may assist in the general location of retail units. First, a base map on a scale of one inch to three-quarters of a mile was prepared, which brought the street mapping of the Boston metropolitan area up to date.

Second, a population distribution map was prepared to give a picture of the areas of most dense population, and, consequently, the larger retail markets. Data derived from census tracts and by field reconnaissance were plotted by dots on the base map. Each dot represented 100 persons. No attempt was made on the dot map to distinguish any particular period or recency of growth, although this information was available from field maps. Field data showed a distinct westerly and southwesterly trend of population growth in the Boston area. Such growth tends to be oriented along and perpendicular to major arteries

which focus on the hub of Boston. Out-migration toward dormitory towns on the perphery has spurred the development of new shopping centers while Boston proper has suffered a severe decrease in its taxable base.

The final maps of the Harvard series presents the distribution of retail shopping centers of Boston overlaid on the population pattern of the metropolitan area. A shopping center on this map is defined as one which has at least five retail units. It may occur as a cluster at or near an intersection, or as a string or linear development along a well-traveled street.

Each of the clusters was mapped in the field at ground floor level. A size classification was established on the basis of the total number of retail units in the cluster, and the number of specialty shops, such as hardware, hosiery, hats, jewelry, etc. The classification covered all magnitudes of retail shopping centers from the small local service groups to the great agglomerations of specialized stores.

It is clear from an analysis of the pattern of shopping centers that as the magnitude of the cluster increases the specialization of retail functions increases. Clusters of similar magnitude have functions which are similar. The specialization of the function occurs even in areas of low income groups, although individual stores in such areas probably reflect a lower investment of capital and a poorer selection of goods.

Thus, from the maps in the Boston project, and from supplementary maps and data, a researcher could gauge the general movement of population along arteries, select a growing retail center, and suggest what types of retail units could be added feasibly to this center. By studying the proximity and magnitude of centers as they were mapped, the researcher could obtain a rough estimate of the trade territory of each center, and could further define the business potential by mapping the density of pedestrians and vehicles in any given cluster. More refined mapping will suggest the best physical sites for a particular retail unit within an existing or developing shopping center.

It is realized that large scale mapping projects are normally beyond the means of individual merchants, but sketch maps of likely locations may be made quickly to be proved later by population and traffic density maps and data from public agencies such as planning commissions. Decisions as to location of retail stores must be made quickly but accurately. It is significant that one super-market chain in the Boston area is plotting store locations in anticipation of highway construction and suburban housing development to the extent of very large purchases of property. The chain relies on its understanding of changes in urban patterns.

While the data and maps presented here are based on Boston, it is likely that the techniques discussed are generally applicable to cities such as Indianapolis, other metropolitan centers, and smaller cities. Mapping can lead toward a more scientific and a more secure location of retail units in all areas.