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NUMBER 1

THE PROBLEM OF RETAIL SITE SELECTION

BY

RICHARD U. RATCLIFF



UNIVERSITY OF MICHIGAN
BUREAU OF BUSINESS ADMINISTRATION
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ASSISTANT PROFESSOR OF REAL ESTATE MANAGEMENT



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AUTHOR'S NOTE

During the last eight or nine years, the frontiers of knowledge in the field of land economics, particularly in urban land economics, have been pushed backward with gratifying rapidity. The prominence of the housing problem and the eruptions and evolutions in home financing have supplied the stimuli for the assembling of a substantial body of enlightening fact, and for the prosecution of scientific research into much unexplored territory. Furthermore, the outcry of humanitarians, sociologists, municipal officials, and property owners, based on a belated recognition of the realities and implications of urban blight, have focussed attention on the economic aspects of urban dynamics, and have brought forth important contributions to our understanding of these phenomena. But concomitantly with the emphasis on housing, home financing, and blight, those problems of city growth and structure which are associated with the commercial utilization of urban areas have been neglected. Thus, the study on retail structure which is here presented is by way of cultivating a field which for long has lain fallow.

During the decade from 1920 to 1930, which was an era of rapid chain store expansion, some attention was given to the problems and techniques of store location by the larger chain organizations and by the more alert real estate brokers specializing in chain store leasing. Following 1930, the problem of breaking leases took precedence over that of making leases, for the chains found themselves in serious difficulties, often ending in bankruptcy. In large part these difficulties arose from overexpansion, and from the burden of high rents reflecting the intensive competition among the chains for choice sites during the period of expansion. The last few years have seen the tide turn, and once more retail chains, property owners, and real estate brokers are faced with problems of location.

One of the original objectives of this study of retail structure was to evolve general formulae which might

be useful in the testing of sites for particular retail uses. It was the plan to study the existing retail structure in a number of cities, and to draw upon the experience of chain organizations in an effort to develop general rules for site selection. But in the early stages of the study it became apparent that before formulae for selection can be developed, there must be an understanding of retail structure as it exists, and of the forces which give it form and order; that there is need for a clarification and statement of the underlying causes of the success or failure of a given retail type in a given location. And so no formulae will appear, nor any specific site specifications. If there be any contribution in the study, it is a clarification of those causative factors which have given form to the retail structure in our cities. However, it is likely that in the discussion of the existing retail pattern, of the import of consumer buying behavior, and of the methods of chains in site selection, the patient reader will uncover truths and principles of practical value in testing the appropriateness of a site for a particular retail use. It is to be hoped that some student of the subject may finally develop formulae by which retailers can identify with some certainty the locations suitable to their trade, and by which property owners may confidently select tenants suitable to their locations.

Grateful acknowledgment is due R. L. Polk & Co., which, at no small trouble and expense, made available for use a number of city directories providing valuable basic data. The author further wishes to express gratitude to the following persons and agencies who provided retail occupancy maps for use in the research: The Akron Real Estate Board, Akron, Ohio; Birmingham Real Estate Board, Inc., Birmingham, Alabama; Robert A. Cline, Inc., Cincinnati, Ohio; The Fred'k A. Schmidt Company, Cincinnati, Ohio; Joseph Laronge, Inc., Cleveland, Ohio; The Dayton Real Estate Board, Dayton, Ohio; Mr. Gerald F. Healy, Flint, Michigan; Grand Rapids Real Estate Board, Grand Rapids, Michigan; Lon Worth Crow Company, Miami, Florida; Atlanta Real Estate Board, Atlanta, Georgia; Mr. Charles B. Bennett, City Planner, Milwaukee, Wisconsin; Mr. Edwin L. Somerville, Minne-

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RICHARD U. RATCLIFF.

Ann Arbor, Michigan
March, 1939.

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CHAPTER 1

INTRODUCTION

The importance of location in retailing is fundamental, for in a large degree merchants succeed or fail as their locations within the city structure are favorable or unfavorable. Literally billions of dollars are staked on the selecting of proper locations for retail outlets. Skillful merchandising can modify but not extinguish the handicap of an inappropriate site. Location problems arise not only in the selection of appropriate sites for new retail outlets but also in the relocating of existing units affected by a shifting of the retail structure. The city is a dynamic organism, in a state of constant flux, growing or shrinking in response to economic forces, and ever readjusting its component parts in reacting to internal stresses. Therefore, the merchant must be vigilant in anticipating significant shifts in the retail structure, and intelligent in the interpretation of such changes lest he be left stranded in the wake of a migration.

The matter of location is a problem common to independent local merchants and large retail chains. In its solution the local retailer possesses the advantage of long familiarity with his own community and its growth trends, while, on the other hand, some of the chains have evolved site specifications and techniques of site analysis which have proven effective. Many chains, however, still depend on the judgment of local real estate brokers or upon a brief survey by their own field men, whose conclusions are often more intuitive than rational.

The owners of business property should be as concerned with the sound location of retail units as are their tenants, for the value of a lease is little greater than the ability of the tenant to profit under it. A tenant retailer badly located will not be a tenant for long. Furthermore, property values attain a maximum only when land is occupied by a use type capable of extracting the greatest economic utility from the site. The value of an individual

site is restricted by its commitment to an improper use, and the longer the term of the commitment, the greater the restriction on the value.

An inappropriate use type may extend its baneful influence beyond its own site. It tends to interfere with the natural arrangement of retail uses, and repels retail types which are appropriate to near-by locations. Thus, the presence of improperly located retail stores in a shopping area may delay the process of maturing, stunt land values, or unnaturally divert the course of growth.

The social repercussions of an irrational retail structure are far-reaching though subtle, for an inefficient retail pattern arising from the misplacement of individual outlets decreases the effectiveness of the marketing process through time wastage and added transportation and delivery costs. Finally, the community income from the taxation of real estate is restricted in so far as the imperfections of the retail pattern hamper the growth of land values.

It is the objective of this study to throw light upon the fundamental considerations in site selection, and to suggest an approach to some of the many problems which are involved. To provide a point of departure, certain hypotheses must be proposed and tested. A fundamental assumption is that as cities grow and mature, there tends to evolve a rational pattern or basic structure composed of the several functional areas, such as the retail areas, the industrial area, and the wholesale area, which comprise the urban community; that although there are many departures, this pattern tends toward the most efficient and profitable utilization of the land; and that the same basic tendencies appear in all cities, though often obscured or thwarted by irrational real estate development or special topographical conditions. This hypothesis is generally accepted as demonstrable by urban ecologists and land economists, and will not be further tested in this study. However, a rationalization of this principle will be attempted in order to explain the basic forces which create the tendencies for orderly arrangement within functional areas.

It is a logical extension of the principle of the functional basis of urban organization to assume that if the component areas of cities arrange themselves in accordance with a predictable system, the arrangement of land uses within each functional area will tend toward a definite pattern consonant with the underlying forces of city growth. This hypothesis will be tested with respect to retail structure through the analysis of existing retail patterns in a number of cities, and through the measurement of the spatial relationships of various retail types. An attempt will be made to explain structural tendencies in terms of functional efficiency and of the buying habits of the population.

If it can be demonstrated that the retail types tend to arrange themselves in an orderly pattern and that the position of most of the retail outlets in a mature area can be explained in terms of the buying habits of the public, it follows that a basis is provided for determining the appropriateness of a given retail type on a specific site. Each site can be analyzed with respect to its relationship to existing retail uses, and with respect to its functional appropriateness for serving the public with a given commodity. On this basis, site specifications for various retail types might be prepared. A study of the techniques of site selection employed by a number of large retail chains will be used to check the conclusions evolving from the deductive analysis of the problem.

The lack of facilities for a strictly factual analysis of the scope required for a definitive study of retail land-use phenomena explains the frequent resort to the deductive method. Statistical measurement in this field is hampered by technical difficulties which are inherent in geographic analysis, and by the inadequacies of available historical data. Finally, special conditions prevailing in each city and each area tend to obscure the fundamental forces. Despite its limitations, it is hoped that this study may at least suggest a technique of site analysis which will provide a better guide in retail site selection than is now generally available.

CHAPTER 2

THE FUNCTIONAL BASIS OF URBAN ORGANIZATION

The Economic Approach

It has been suggested in Chapter 1 that if there exist tendencies toward a schematic organization of retail uses, such tendencies are probably conditioned by the same underlying forces which are directive of the urban form as a whole. Thus, the first step in the analysis of retail structure is an examination of the urban ecology in general, describing the spatial relationships between functional areas, and attempting to uncover and explain those forces which have molded our cities into the basic pattern which is found repeated in every community.

Sociologists, more than any other group, have given attention to the phenomenon of urban agglomeration. This fact may explain the general tendency to consider the city as a social unit. But even a superficial consideration of the historical evolution of urbanism will reveal its fundamental economic causation. It is true that some cities grew up around religious shrines, that others originated as political capitols, while some, endowed by nature, developed as recreational centers. But there can be little doubt that the vast majority of our urban population is found in locations of favored economic opportunity. In general, cities are loci of the wealth-getting and wealth-spending activities of man, some at the sources of raw materials, some where accessibility to raw materials, power, and markets favor manufacturing, and some at points of transshipment where transport and trade provide economic opportunity.

If it can be assumed that urbanism is basically an economic phenomenon, it is a logical deduction that the internal organization of cities has evolved as a mechanism to facilitate the functioning of economic activities. Per-

haps the apparently haphazard arrangement of use areas does have an essential order, diffused though it may be as the result of shortsighted or speculative real estate development.

Increasing specialization of function has characterized the evolution of our present complex economic organism. The city, considered as an economic mechanism, has exhibited the same tendency in the form of increasing specialization of site function concomitant with the maturing of the urban structure. As villages grow into towns, and towns into cities, there is evidenced an increasing tendency for uses of like character to become concentrated in functional areas. In the several residential districts, the growing segregation of social and economic groups of the population is reflected in an increasingly variant quality of housing. Industrial areas begin to take shape. Within the retail and commercial districts, there appears a pronounced tendency toward sectionalism, a clustering of like uses. Through a process of economic selection, the city begins to acquire a definite land-use pattern.

In general, complexity breeds specialization and necessitates systematic organization. In manufacturing, the more complex the process, the more specialized are the functions, and the more highly organized are the operations. And so it is that growing cities, with an increase in the complexity of the economic functions performed within them, tend to rearrange the uses of land in order most effectively to facilitate these activities.

It is characteristic of specialization in any field that those persons or materials or locations best adapted to a particular function or operation gravitate toward the performance of that function. This is true in urban evolution. The utilization of land is ultimately determined by the relative efficiencies of various uses in various locations. Efficiency in use is measured by rent-paying ability, the ability of a use to extract economic utility from a site. The process of adjustment in city structure to a most efficient land-use pattern is through the competition of uses for the various locations. The use which can extract the greatest

profit from a given site will be the successful bidder. The outgrowth of this market process of competitive bidding for sites among the potential users of land is an orderly pattern of land use spatially organized to perform most efficiently the economic functions which characterize urban life.

The ideal land-use pattern is, of course, never attained. Site bids are too often matters of trial and error. The complexity of the forces impinging upon each site precludes any accurate measurement of its future utility. The widespread use of leases tends to perpetuate errors in site selection and to delay the process of rearrangement. Finally, the perpetual evolution of our economy, technological change, and social mutations are continually creating alterations in economic functions and giving rise to maladjustments in city structure which can be corrected but slowly and painfully.

Retail Structure

Before we undertake to analyze the specific locations of the various retail types, it will be well to examine the retail structure of the city as a whole, and the orientation of the retail areas with respect to the other functional areas comprising the community.

It has been customary to describe city structure as a series of concentric circles, with each band utilized predominantly by a different functional class of land use. This theory is well expressed in the following quotation:¹

... At the center of these zones lies the financial and office district; immediately surrounding this and interpenetrating it is the central retail district where the large department stores and high grade specialty shops are found. Clinging close to the skirts of the retail district lies the wholesale and light manufacturing zone. Scattered through this zone and surrounding it, old dilapidated dwellings form the homes of the lower working classes, hobos, and disreputable characters. Here the slums are harbored. Cheap secondhand stores are numerous and low priced "men-only" moving-picture and burlesque shows flourish.

¹Ernest M. Fisher, *Advanced Principles of Real Estate Practice* (New York: Macmillan Company, 1930), p. 125.

In the next zone heavy manufacturing may be found, although naturally this use breaks up the uniformity of the pattern to hover along routes of transport. The use characteristics of this district is that of homes of the respectable working classes. Apartment houses and tenements of the better grade are common.

Beyond the workingmen's homes lies the "residential" district, a zone in which the better grade of apartment houses and single-family residences predominate, and beyond this the commuter's zone of finer houses and larger lots.

Recent studies of city structure have introduced important qualifications into the concentric zone theory. For instance, it appears that the central shopping district is most frequently the nucleus of urban organization rather than the financial district. It is located at the convergence of the main arteries of transportation, and is the locus of the highest land values. The financial institutions and office buildings are normally close at hand, but apparently cannot compete successfully with the retail uses for the choicest sites. Finally, an important share of the retail business of the city is conducted outside of the central area, at retail subcenters at important intersections, along string-street retail developments,² and in neighborhood shopping clusters of stores. The character of the retail structure will be discussed in some detail at a later point.

The wholesale and light manufacturing zone lies beyond the central shopping and financial district and adjoins it. However, it is typically adjacent to only a portion of the retail area.

The past tendency of heavy manufacturing to occupy central locations has been reversed. Industrial uses are found in bands running outward from the center along transportation lines or river valleys, or in groupings at the outskirts where land is cheaper, taxes lower, and transport facilities available in belt lines or truck routes.

The concentric theory of city structure likewise fails to describe realistically the residential pattern. It can be demonstrated that the residential areas of various grades tend to grow outward in sectors radiating along

²For a definition of the string-street retail pattern, see p. 12.

axes originating near the center of the city. The low-rent areas extend themselves by creeping outward at the edges of districts where this class of housing has become established. The same tendency is found in middle-class and high-grade areas. The high-rent apartment house districts are most frequently found in fairly central locations, but extending outward along fashionable streets and fast transportation routes.

Although it never attains a perfect conformation, the basic structure of a city more nearly approaches the pattern of a cut pie than that of a series of concentric circles. The sectors of the pie are uneven and unequal, and at the center lies a roughly circular segment representing the central business district. The industrial areas are likely to be thin strips and rectangular sections; and the whole pastry is traced and spotted with the outlying retail structure.³

Since we are interested primarily in retail land use, a detailed consideration of the characteristic retail conformation is appropriate. The focal point of every city is the central shopping area, familiarly termed the "100 per cent district." Here are the great department stores, the incarnadine variety chains, the smart apparel shops, interlarded with restaurants, drug stores, and specialty stores which serve the shopping crowds drawn into the district. This is the area which, by virtue of the ecological organization of the city and the convergence of transportation lines, is the spot most accessible to the greatest number of consumers. Crowding and interpenetrating the area of most intensive retail activity are the lesser retail uses—popular-price department stores, men's wear, furniture, pianos, family shoes, sporting goods, radio, and popular-price restaurants. In one sector, there may be a scattering of theatres, and at another point, the financial and office building district. As the central business

³For a well-documented presentation of the "sector theory" of city structure, see Homer Hoyt, *The Structure and Growth of Residential Neighborhoods in American Cities*, a monograph in course of publication by the Federal Housing Administration.

area merges into the wholesale and light manufacturing district, or into the slum and rooming house area, there appear the lowest grade of central business uses—pawn shop, food store, pool hall and beer garden, burlesque house, automotive supplies, shoe repair, cheap photographer, and cheap restaurant. In the direction of the better residential areas, the retail area tapers off in specialty shops, food stores, restaurants, gift shops, small men's and women's apparel stores, and auto showrooms.

It is a common misconception that the majority of retail trade is done in the central district. Two authoritative studies of retail trade, one covering Baltimore in 1929,⁴ and the other Philadelphia in 1935,⁵ reveal the relative

TABLE 1—PER CENT OF TOTAL STORES AND TOTAL SALES FALLING IN CENTRAL BUSINESS DISTRICT, PHILADELPHIA, 1935

Business Group	Per Cent of Stores	Per Cent of Sales
All groups.....	9.2	37.4
Food stores.....	2.5	5.7
Automotive group.....	5.0	9.5
Filling stations.....	1.8	2.2
General merchandise group.....	4.9	71.5
Apparel group.....	22.1	63.2
Furniture-household group.....	18.0	34.9
Lumber-building hardware group.....	7.3	15.3
Restaurant group.....	14.6	37.4
Drug stores.....	5.7	25.2
Other retail stores.....	17.6	37.0

Source: *Intra-City Business Census Statistics for Philadelphia, Pennsylvania.*

importance of the central area. In Baltimore, the central shopping district contained 6.1 per cent of the city's stores and accounted for 28.1 per cent of the total retail business. In Philadelphia, the corresponding ratios were 9.2 per cent and 37.4 per cent. In only two retail classifications

⁴I. K. Rolph, "The Location Structure of Retail Trade," *Domestic Commerce Series*, No. 80, U. S. Bureau of Foreign and Domestic Commerce.

⁵United States Department of Commerce, *Intra-City Business Census Statistics for Philadelphia, Pennsylvania*, Bureau of the Census, May, 1937, prepared under the supervision of Malcolm J. Proudfoot, Research Geographer, p. 25.

did the central district account for more than 40 per cent of the city sales—the general merchandise group with 71.5 per cent, and the apparel group with 63.2 per cent. In three other groups, the central area accounted for roughly one-third of all sales—the furniture-household group, the restaurant group, and the unclassified group. Twenty-five per cent of all drug store sales, 15 per cent of the sales of the lumber-building hardware group, and less than 10 per cent for the food stores, automotive group, and filling stations were made in the central area.

The pattern of the outlying retail structure consists of combinations and variations of two basic conformations. The one phenomenon is the retail use of property abutting a traffic artery, stretching out along its length, and rarely sprouting off down intersecting streets. This form is variously called a "string-street development," a "business thoroughfare," or "business street." The nature of the uses comprising this conformation depends upon the extent to which the street is a main auto artery, and the degree to which it is the core of a residential area. The use of the street as a traffic artery attracts retail shops serving the transients—filling stations, accessory shops, auto showrooms, quick lunches and refreshment stands, food markets and fruit stands. The proximity of residential districts encourages convenience-type outlets—drug stores, grocery stores, laundry and cleaning branches, hardware stores, delicatessens, and pool halls. Since there are infinite variations in the relative importance of major streets as arteries and as the cores of residential districts, the nature of string-street retail development cannot be strictly defined.

The other basic conformation of the outlying retail structure is the nucleation, a clustering of retail uses, which in the higher forms, tends to assume a structural unity. This form typically appears at the more important intersections and creates a pyramiding of land values to a peak adjacent to the intersection. The nucleation may vary in nature, extent, and intensity of land use from the neighborhood grocery-drug store combination to a major

retail subcenter providing on a reduced scale all the services of the central business district. Frequently, nucleations appear as peaks of development in a string street, and the boundary between the string street and the nucleation is a matter of arbitrary definition. In most cases, the nucleation is concentrated on the primary street, although it frequently sends off short spurs down the major cross street. The junction of two string-street developments is usually the locus of a nucleation. The numerous isolated grocery stores and drug stores which spot residential areas are of the same nature as the nucleations proper, and often constitute the original germ which develops into a nucleation as the tributary residential area matures.

Attempts have been made to identify and define sub-classifications of these two basic conformations, the string street and the nucleation, which are encountered in the outlying retail structure. Imperfect as these classifications are, they prove useful in providing a rough measure of the relative importance, in the retail trade of the city, of these areas as defined, and in characterizing the services found there.

In his study of the retail trade of Philadelphia, Proudfoot identifies the more intensively developed nucleations as "outlying business centers."⁸

... Here, for the most part, are found shopping goods outlets such as women's and men's clothing stores, furniture stores, shoe stores, jewelry stores, one or more large department stores and an admixture of convenience goods stores. Although individual outlying business centers do not draw customers from all parts of the city, they frequently attract them from long distances. Since these centers depend on customers drawn from wide areas, they all have developed at focal points of intra-city transportation where pedestrian traffic is increased by passengers of mass and vehicular conveyance.

The lower-grade nucleations are termed "isolated store clusters."⁹

... These clusters usually comprise two or more complementary

⁸*Ibid.*, p. 3. Cf. p. 9.

⁹*Ibid.*, p. 4. Cf. p. 9.

rather than competitive convenience goods stores. Thus there may be a drug store, a grocery store, a meat market, a fruit and vegetable store, a delicatessen and possibly a small lunch room grouped together at a minor street intersection. These stores usually supply a large portion of the immediate convenience goods wants of residential families located within an easy walking distance. Frequently these store clusters develop in sparsely settled fringes of the urban area, but in many instances they are found within densely populated residential areas, restricted, by the chance of occupancy or by zoning regulations, to a scant block or even a city lot.

String-street developments are divided into "principal business thoroughfares," and "neighborhood business streets." With respect to the first of these two classifications,⁸

. . . It is both a business street and a traffic artery. As a business street it possesses large, widely-spaced shopping and convenience goods stores. As a traffic artery it carries a heavy density of mass and vehicular traffic. This dense traffic primarily results from attractive forces exerted on residential population by the central business district or by some outlying business center. Although stores of this structural type cater to, and are primarily dependent on customers derived from this dense traffic, their presence has little counter effect on the density of this traffic. Offering the special inducement of ample curb-side parking space, these stores manage to thrive by attracting customers from a small fraction of the passengers of this intercommunity traffic.

The neighborhood business street is primarily of neighborhood significance. It draws customers, almost without exception, from within easy walking distances. This structural type consists of more or less continuous rows of grocery stores, meat markets, fruit and vegetable stores, drug stores, and other convenience goods outlets, interrupted by a minor admixture of shopping goods stores. These streets extend throughout the residential portions of the city. They either take the form of a more or less regular network following the principal mass transportation and trucking routes which are undesirable for residential purposes, are extensions to outlying business centers, or are isolated from other retail structures.

In the statistical analysis of retail sales for Philadelphia, the data for outlying stores were grouped into three classifications—outlying business centers, principal business thoroughfares, and community business areas which include

⁸*Ibid.*, p. 4. Cf. p. 9.

isolated store clusters, neighborhood business streets, and single isolated retail stores.

The following table shows, for each of the types of retail business, what percentages of the total for the city were accounted for in outlying business centers.

TABLE 2—PER CENT OF TOTAL STORES AND TOTAL SALES FALLING IN OUTLYING BUSINESS CENTERS, PHILADELPHIA, 1935

Business Group	Per Cent of Stores	Per Cent of Sales
All groups.....	18.6	19.2
Food stores.....	13.3	22.0
Automotive group.....	17.5	34.8
Filling stations.....	8.1	10.8
General merchandise group.....	28.5	6.7
Apparel group.....	39.2	26.9
Furniture-household group.....	35.7	38.6
Lumber-building hardware group.....	21.6	20.9
Restaurant group.....	15.5	19.4
Drug stores.....	14.1	20.8
Other retail stores.....	19.6	19.3

Source: *Intra-City Business Census Statistics for Philadelphia, Pennsylvania.*

More than one-third of the city's purchases in the automotive and furniture-household groups are made in outlying business centers. With the exceptions of the filling station and general merchandise groups, which run lower, there is a high degree of consistency in the percentages for the other groups, ranging from 19 per cent to 27 per cent, with a clustering around 20 per cent.

An examination of the character of trade in the individual centers points to a marked diversity.⁹

... For example, there are: four centers with over 50 per cent of their individual business derived from sales in the food group . . . ; three other centers have from 50 to 70 per cent of their sales volume accounted for by the automotive group . . . ; three centers derived a substantial proportion of their business from sales in the general merchandise group . . . or in the apparel group . . . ; several other centers are as well represented in the furniture group . . . ; and

⁹*Ibid.*, p. 11. Cf. p. 9.

restaurants are outstandingly represented in five centers. In contrast, there is little concentration in the case of any individual center in such enterprise as filling stations and drug stores; and one-third of the centers, those not listed above, show little deviation from the average condition.

These facts suggest that there exists a diversity in the character of the tributary areas supporting these nucleations, and emphasizes the difficulties in constructing an adequate qualitative classification of retail groupings.

The principal business thoroughfares of Philadelphia are generally dominated by either the food or the automotive groups.¹⁰

. . . six thoroughfares are outstandingly dominated by stores of the food group . . . ; and four are dominated by automotive establishments . . . The dominance of these two kinds of business, as shown by the sales volume of these thoroughfares, amounts to from 50 to 80 per cent of their totals. Finally, in this connection, it is to be recalled that 67 per cent of the total sales recorded for all of these thoroughfares is derived from these two business groups. These conditions are the apparent outgrowth of heavy automobile traffic passing these establishments, which, with their wide spacing, offer ample parking space for vehicles, the passengers of which either make convenience goods food purchases or buy automobiles and auto accessories.

As has been suggested before, this explanation fails to recognize the effect upon retail trade of the residential districts adjacent to string-street developments. The predominance of food sales in some of these thoroughfares cannot be explained without considering the extent of residential development near-by.

The relative importance of the business thoroughfare in the various lines of trade for the city as a whole is shown in Table 3. It is apparent that, as defined by Proudfoot, the principal business thoroughfares of Philadelphia play a minor role in the retail distribution of the city, except in the automotive and filling station groups.

The community business areas of Philadelphia are the most important of the four general classifications of retail areas, containing 69.4 per cent of all stores and doing

¹⁰*Ibid.*, p. 11. Cf. p. 9.

TABLE 3—PER CENT OF TOTAL STORES AND TOTAL SALES FALLING IN PRINCIPAL BUSINESS THOROUGHFARES, PHILADELPHIA, 1935

Business Group	Per Cent of Stores	Per Cent of Sales
All groups.....	2.8	3.3
Food stores.....	2.3	3.0
Automotive group.....	7.0	20.3
Filling stations.....	4.7	8.5
General merchandise group.....	3.1	0.1
Apparel group.....	1.9	0.5
Furniture-household group.....	3.7	4.4
Lumber-building hardware group.....	4.2	4.0
Restaurant.....	2.8	2.2
Drug stores.....	3.0	3.0
Other retail stores.....	2.3	2.2

Source: *Intra-City Business Census Statistics for Philadelphia, Pennsylvania.*

40.1 per cent of all retail trade. According to Proudfoot, the outstanding characteristic of these areas is¹¹

... the rather uniformly high proportion of business conducted by stores of the food group. From a high average of over 42 per cent of the combined volume of sales recorded for food stores, it is notable that for fifteen areas over 40 per cent of their business is of this kind. In only two cases does this proportion fall below 25 per cent. . . , and in two other cases nearly 60 per cent of the volume of sales is of this kind . . . Outside of this primary dominance of food stores in most community business areas, there is a secondary concentration in three areas of sales in the automotive group . . . , and one area in which the general merchandise group accounts for over 83 per cent of the combined volume of sales . . . Therefore, the retail trade of these community business areas, with minor exceptions, seems to fit the general description given for neighborhood business streets and isolated store clusters.

Table 4 reveals the relative importance of community business areas in the trade of the city.

Among the other attempts at classification of outlying retail conformations are those of I. K. Rolph in a study of Baltimore, and of the author in a study of Detroit.¹²

¹¹*Ibid.*, p. 12. Cf. p. 9.

¹²Rolph, *op. cit.* Cf. p. 9. R. U. Ratcliff, *An Examination into Some Characteristics of Outlying Retail Nucleations in Detroit, Michigan*, doctoral dissertation (University of Michigan: 1935).

TABLE 4—PER CENT OF TOTAL STORES AND TOTAL SALES FALLING IN COMMUNITY BUSINESS AREAS, PHILADELPHIA, 1935

Business Group	Per Cent of Stores	Per Cent of Sales
All groups.....	69.4	40.1
Food stores.....	81.9	69.3
Automotive group.....	70.5	35.4
Filling stations.....	85.4	78.5
General merchandise group.....	63.5	21.7
Apparel group.....	36.8	9.4
Furniture-household group.....	42.6	22.1
Lumber-building hardware group.....	66.9	59.8
Restaurant.....	67.1	41.0
Drug stores.....	77.2	51.0
Other retail stores.....	60.5	41.5

Source: *Intra-City Business Census Statistics for Philadelphia, Pennsylvania.*

The Rolph classification recognizes neighborhood developments, string-street developments, isolated units, and subcenters. Subcenters are grouped into four classes.

The . . . extent to which they contain outlets representing commodities necessary to make a community self-contained from a merchandising viewpoint is the basis of the following designations:

Class A subcenter contains minimum requisites in all of nine groups of merchandise.

Class B subcenter contains minimum requisites in any seven groups of merchandise.

Class C subcenter contains minimum requisites in any six groups of merchandise.

Class D subcenter contains minimum requisites in any five groups of merchandise.

The nine commodity groups are similar to those previously cited from the Proudfoot analysis of Philadelphia, although adding a jewelry group and omitting filling stations and the miscellaneous group: food, general merchandise, apparel, automotive, furniture and household, lumber and building, restaurant and eating places, drugs, and jewelry.

In the study of outlying retail structure in Detroit, subcenters were classified on the basis of the presence of high-class retail uses, retail uses having been classified according to relative rent-paying ability.

Regardless of the usefulness of extended subclassification of retail conformation, it does appear that there are two basic forms—the nucleation (which describes the central business district as well as outlying clusters) and the string street. The essential difference between the two is the lack of internal organization in the case of the string street as compared with the more definite pattern in arrangement of uses which characterizes the nucleation.

The purpose of this brief consideration of urban retail structure has been to illustrate the complex pattern which has evolved with urban development. This pattern is not a haphazard design but has appeared in response to definite needs and demands. It is as much a part of the mechanism of distribution as the railroad or motor truck, and the underlying arrangement of its component parts is equally rational. The specialization of function is illustrated in the data showing the relative importance of the several commodity groups in different types of retail clusters. A more particularized examination would probably reveal functional differences among the retail areas which are reflections of the habits and requirements of special consumer groups. A final demonstration of the economic foundation of the retail structure can be found in its orientation with respect to the vehicular transportation system and the residential areas.¹³ But these things are matters which must be accepted without further demonstration in order to get on to the analysis of the internal organization of the central business district.

¹³Ratcliff, *op. cit.* Cf. p. 15.

CHAPTER 3

SPATIAL RELATIONSHIPS IN THE CENTRAL BUSINESS DISTRICT

Purpose of the Analysis

Up to this point in the discussion, we have been dealing in generalizations designed to provide a description of the retail structure of cities. We are now at the point of proposing the hypothesis that retail areas, like the city as a whole, tend to exhibit a systematic internal spatial organization of uses arising from a process of economic selection which is part of the process giving form and reason to the urban organization of functional areas. It follows that within commercial areas, the various retail types tend to arrange themselves in accordance with their several abilities to utilize the available sites most effectively. Thus, if the characteristics of the sites normally occupied by each retail type can be defined and differentiated, and if the functions of each retail type can be related to the site characteristics, we shall have provided a basis for determining the appropriateness of a given retail use in a given site.

Urban retail structure has been described in general terms by students in a number of fields. There are a few examples of statistical studies relating to the qualitative differences between the various parts of the retail pattern.¹ But a quantitative analysis of the spatial relationships between the retail land-use types has not been heretofore attempted.² For the purposes of this study, such a statistical analysis must measure, on the basis of an adequate sample covering a number of cities, the tendencies for certain use types to cluster, i.e., to be found in proximity to one another, within the retail area. In some cases these tendencies arise from the magnetic at-

¹Rolph and Proudfoot, *op. cit.* Cf. p. 9.

²An attempt to describe statistically the structure of outlying retail subcenters will be found in Ratcliff, *op. cit.* Cf. p. 15.

traction of one retail type for another, i.e., the merchandising advantage to one type of a location in the vicinity of another type. In other cases, retail uses are associated geographically because each type finds the same general location advantageous by reason of the buying habits of its customers, the location of transport facilities, of residential areas, or of centers of employment.

Analysis of this kind presupposes that similar tendencies in the clustering of retail types exist in all cities and that the strength of the attractive powers is of the same order. It is further assumed that in a mature retail structure such as may be found in the central business districts of large cities the pattern of uses has crystallized into a basic form found substantially repeated in other cities. Years of constant rearrangement of tenants in a process of trial and error, the application of intelligent site-selection methods by retail chains, and the wisdom, born of long years of observation and experience, on the part of local merchants in finding profitable locations—all these factors have tended to create in the central business areas of our cities a retail pattern wherein the majority of the retail outlets have found an appropriate location, and wherein the consumer may perform the purchasing function to the best advantage. The essential problem of retail site selection is to identify the locations within the retail structure which are best suited for particular retail uses. Therefore, the greater the knowledge of the underlying tendencies in retail arrangement, the greater the chance of successful selection. It is one of the objectives of this study to evolve a quantitative description of basic retail structure which may provide a guide to location analysts.

There are, of course, certain qualifications to the assumptions just outlined. In the first place, a true consistency of use arrangement as between cities does not in fact exist. Special geographical conditions or the unique circumstances of the evolution of the business area in each city affect retail arrangement. Furthermore, poor judgment in the selection of locations, or the restraining

influence of long leases, which restrict readjustment, tend to create inconsistencies in pattern. These conditions may diffuse the basic organization but cannot obliterate it.

Method of Analysis

The analysis of spatial association between the various retail types calls for the use of some indicator of geographical proximity. The use of a simple space measure runs afoul of the fact that equal spaces between units do not always have the same significance. For instance, the affinity may be stronger between two units located in the same block than two units, equally far apart, but in adjacent blocks, or across the street from one another. Another possible space unit is the store front, i.e., distances between units may be expressed in terms of the number of store fronts between the stores. This unit is subject to the same objections which may be levied against any other space measure; a further weakness lies in the irregularities in the width of store fronts.

After considerable experimentation in technique, a method of analysis was adopted which employs the fact of coincidence in a single block—one side of a rectangular city block—as the indicator of proximity. On this basis it is possible to measure roughly on a comparative basis the tendencies for the various retail uses to be found in geographical association. Thus where women's clothing stores constitute a substantially greater proportion of the uses found in blocks containing variety stores than in blocks containing furniture stores we may conclude that there is a stronger associative tendency between women's clothing stores and variety stores than that between women's clothing stores and furniture stores. It is recognized that the block unit method of analysis provides only a rough measure of association. However, it has proved to be the only practicable device in light of the nature of the problem and the limitations of the basic data. This method can be rationalized in light of current site-selection practice. In the first place, the real estate officers and field men of chain organizations, as well as real estate

brokers who specialize in lease negotiation, use the block as the unit in their differential rating of the parts of the central business areas. The "hot spot" is the "100 per cent block," while across the street may lie the "90 per cent block." Streets are considered to be barriers of varying importance, which usually create a break in the character of the retail development. Both the streets on which the frontage lies, and the intersecting streets at the ends of the block unit are natural barriers by virtue of creating a spatial discontinuity of shopping frontage, and because of delay and hazard created by the street traffic.

The attempt at a quantitative measurement of associative tendencies has been restricted to the central business district under the assumption, as previously outlined, that the central area exhibits a more definite internal structure than the outlying retail areas. It is the oldest part of the city, and probably the most mature. Thus the maximum opportunity has been provided for the assertion of the basic forces which determine retail organization.

Practical considerations made it necessary to limit the statistical analysis to relationships between relatively few of the numerous retail types native to the retail structure of our cities. Seven central business area retail types were selected, chosen in part to typify various districts within the central business area, and in part on the basis of differences in commodities and services offered. The seven types are department store, variety, shoes, jewelry, furniture, florist, and theatre, and will hereafter be referred to as the control types. Data on retail occupancies in some twenty-four cities were available from the street guide sections of Polk city directories and from occupancy maps prepared by Realtors in a number of the cities. On the basis of this information, a tabulation was made of the uses appearing in the same block units where representatives of each of the seven control types were found. The first step in this tabulation for any one city was to locate all the representatives of the control type, variety stores for example, in the central business area. Having spotted

all block units in which variety stores appeared, a listing was made of all the stores in those blocks. This procedure was followed for each of the seven control types, and for each of twenty-four cities. As a result, seven controlled samples were made available for analysis, each sample composed of a tabulation of all the retail units found in the same blocks with the control type in all the cities included. In other words, this part of the study consists of the analysis of seven samples of block occupancies, each sample consisting of blocks containing at least one representative of the control type, which is recognized to be typically, though not exclusively, a central business district use type. The method of selecting the samples obviated the necessity for a definite delimitation of the central business area, a task which is well-nigh impossible. All blocks in all samples are centrally located, and are situated within the areas generally recognized as constituting the business core of the various cities. The cities included in each of the seven samples are indicated in Table 5.

The problem of classifying the retail outlets which are encountered in the central business areas of American cities was solved in part by the adaptation of the grouping employed in the city directories published by R. L. Polk & Company. This classification is used in the street guide sections of the directories published in almost every important city in the country. The definitions are based on the type of goods or services offered in the outlets, and leave much to be desired where more complete qualitative descriptions are useful in the analysis. For instance, retail stores offering shoes for sale are classified merely as "shoes." The information in the city directories and in most cases on the occupancy maps gives no indication of whether the shoes are suitable for men or women, whether or not the store is a "family" shoe store, or whether the shoes are high-priced or popular-priced. Unfortunately, these qualitative differences in shoe outlets have some significance in the retail structure. A site suitable for a

TABLE 5—SOURCES OF DATA FOR THE SEVEN CONTROLLED SAMPLES

City	Department Stores	Variety Stores	Shoe Stores	Jewelry Stores	Furniture Stores	Florists	Theatres
Atlanta, Ga.....		x					
Baltimore, Md.....		x			x		
Birmingham, Ala.....	x	x	x	x	x	x	x
Buffalo, N. Y.....		x					
Cincinnati, Ohio.....	x	x	x	x	x	x	x
Cleveland, Ohio.....	x	x	x	x	x	x	x
Dayton, Ohio.....	x	x	x	x	x	x	x
Detroit, Mich.....	x	x	x	x	x	x	x
Flint, Mich.....	x	x	x	x	x	x	x
Grand Rapids, Mich.....	x	x	x	x	x	x	x
Kansas City, Mo.....		x					
Miami, Fla.....	x	x	x	x	x	x	x
Milwaukee, Wisc.....		x					
Minneapolis, Minn.....	x						
Newark, N. J.....	x	x	x	x	x	x	x
New Orleans, La.....	x		x	x	x	x	x
Oakland, Calif.....	x	x	x	x	x	x	x
Pittsburgh, Pa.....	x	x	x	x	x	x	
Portland, Ore.....	x	x	x	x	x	x	x
Providence, R. I.....		x	x	x	x	x	x
Seattle, Wash.....	x	x	x		x	x	x
St. Louis, Mo.....	x		x	x	x	x	
Tulsa, Okla.....		x	x	x	x	x	x
Washington, D. C.....	x	x	x	x	x	x	x

popular-priced line of men's shoes might not be at all appropriate for a line of high-grade ladies' shoes.

In the early stages of the study, an attempt was made to differentiate between independent and chain outlets. Ultimately this distinction was dropped because of inaccuracies which were revealed by field checks of the data, and because the differentiation appeared to be of minor importance in the particular problem which was under investigation.

The complete classification employed by the Polk directories proved to be too cumbersome to be practicable. For this reason, related categories were combined in a number of instances. A "Miscellaneous" class was created to accommodate those retail types which were encountered most infrequently in central business areas. An extensive tabulation of central retail uses in a number of cities was used as the basis for determining which retail types to

include in the final classification and which types to group in the "Miscellaneous" category. The final classification appears in Table 6 with indications of which classes represent combinations of classes from the original Polk classification.

TABLE 6—RETAIL USE CLASSIFICATION

Auto parts—used	Hosiery
Auto sales	Household appliances (gas ranges and stoves, vacuum cleaners, sewing machines, washing machines, refrigerators, stoves, electrical goods)
Auto sales—used	Industrial
Auto supplies (auto accessories)	Jewelry
Bakery	Laundry
Bank	Lumber (building supplies)
Barber	Meats
Beer garden	Men's furnishings (men's clothing, clothiers, men's and boys' clothing, clothing)
Bottling works (soft drinks manufacturing, beer wholesaler)	Millinery
Candy (confectionery, ice cream)	Miscellaneous (all uses which cannot be classified into the above groups)
Children's wear (children's clothing)	Moving and cartage
Cigars	Music
Cleaner (cleaner and dyer, hat cleaner)	Paint and wall paper
Curtains and upholstery (floor coverings)	Parking lot
Delicatessen	Plumber
Department	Pool (billiards and bowling)
Drugs	Radios (radio tubes, supplies)
Dry goods	Restaurant (lunchroom)
Filling station	Shoe repair
Florist	Shoes
Food specialties (fish, fruit, dairy products, butter, eggs, and cheese)	Tailor
Furniture—new	Theatre
Furniture—second hand	Tires
Furs	Undertaker
Garage (auto repairing, auto garage)	Vacant
General market	Variety (5c to \$1 department, general merchandise)
Grocery	Women's clothing (women's and misses' clothing, ladies' furnishings, ready-to-wear, women's furnishings)
Haberdashery (shirts, neckties, men's hats)	
Hardware	
Heating equipment (hot water heating, oil burners, furnaces, air conditioning)	

Only ground floor retail uses with street frontage are considered in this study. It is true that some retail operations are conducted on upper floors and in basements, but such cases are numerically unimportant. The major site-selection problems concern ground floor locations.

To illustrate the analysis, the basic data which were collected in the manner described above are presented in a series of tables and charts. Tables 7, and 10 to 15 are tabulations of the retail uses which are found in the same blocks with each control type, the percentage which each type bears to the total of all stores found in those blocks, and a cumulative percentage in order of descending frequency. The tables also indicate the number of blocks in which each control type is associated with each of the other retail types, and the frequency with which various numbers of the associated type appear in the same block with the control type. These data indicate the relative importance of each type in the blocks containing the control type as well as the diversification of types. Charts I to VII present the material in graphical form.

Table 8 presents for each retail type in each of the seven samples the frequency of its appearance as an indication of its relative importance in the sample. This frequency is expressed as a percentage of all uses in the sample, and as the percentage of the block units included in the sample in which one or more representatives of the retail type is found.

Table 9 is composed of the indexes of concentration for each use type encountered in the several samples. The derivation and significance of this index is found in a footnote to the table. In general, the index is an approximate measure of the relative tendencies of representatives of the various retail types to be found in the proximity of other outlets of the same type. The index might be termed a measure of relative "self-affinities."

Location Characteristics of the Seven Control Types

It is frankly recognized that the data which have been assembled for analysis are imperfect, and that interpre-

tation must be carefully qualified. However, the fact that a number of definite tendencies are revealed, and that the statistical description of central business areas is confirmed by field observation, impart validity to certain conclusions which may be drawn from a study of the data. In general, the quantitative measurements which are developed are relative rather than absolute.

The descriptive facts which have been assembled in an attempt to uncover underlying tendencies in central retail structure are subject to two general types of interpretation. In the first type of analysis, the location characteristics of the control types may be described in terms of the retail types which predominate in their vicinity. The fact that the seven samples are overlapping to an indeterminable extent, and the difficulty of definitely delimiting the central business district hampers any attempt at measuring the proportioning of the retail types within the business core. In addition to identifying the more important companions of the control types, it is possible to arrive at certain generalizations concerning the more frequently encountered neighbors of the associated retail types. The second order of analysis is concerned with an attempt to measure, on a relative basis, the tendencies for grouping of the various retail types by appraising the varying degrees of association between the different retail types and between representatives of the same type.

Department stores. The first step in analyzing the location characteristics of department stores is to present a statistical picture of the occupancy in blocks in which department stores are found. This summary of companion uses will be found in Table 7, together with two rough measures of the relative importance of each retail type.

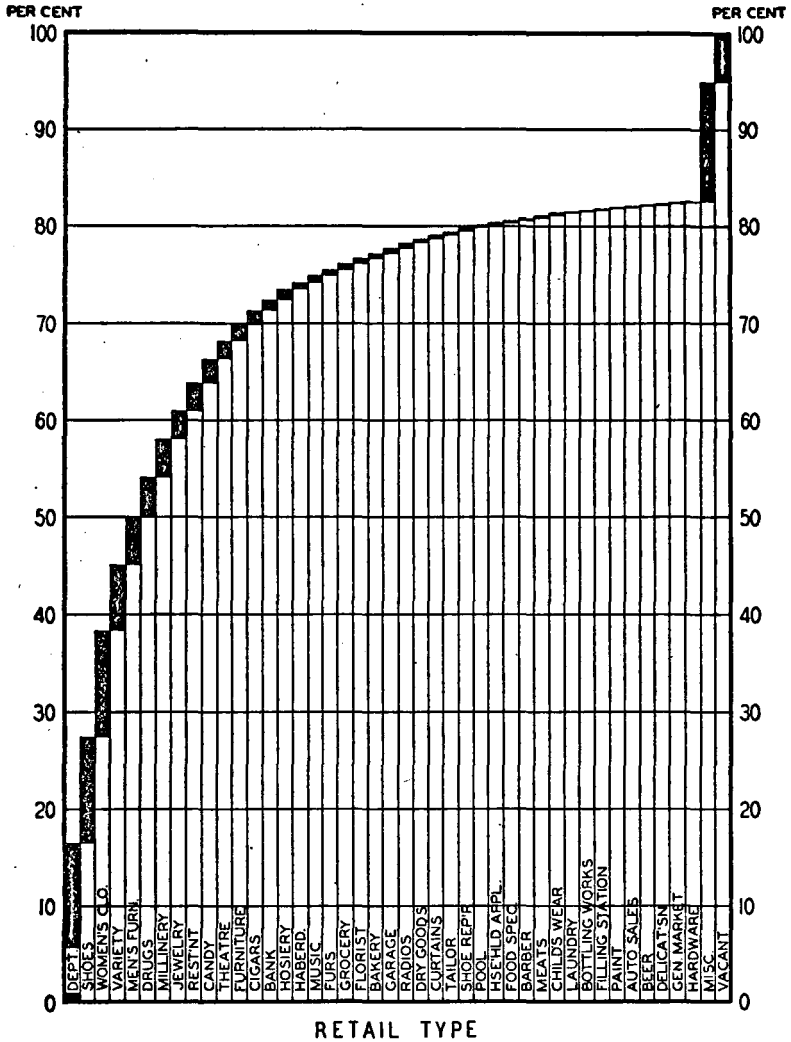
The first indicator is the percentage which each use bears to all uses in the blocks in which department stores are present. The second measure is the percentage of blocks in the sample in which there appears one or more representatives of each retail type. These indicators reflect the degree of association between each type and the

RETAIL SITE SELECTION

TABLE 7—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING DEPARTMENT STORES

Retail Type	Blocks Where Type Occurs		Appearances								Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units				
	Number	Per Cent	Total	Number Per Block												
				0	1	2	3	4	5	6			7			
Control type (Department store).....	105	100.0	116	0	94	11	.	.	.	.	.	.	.	16.41	16.41	
Shoes.....	36	34.3	78	69	16	8	5	4	3	.	.	.	.	.	11.03	27.44
Women's clothing.....	37	35.2	77	68	14	13	6	3	.	.	.	.	1	.	10.89	38.33
Variety.....	32	30.5	48	73	21	6	5	.	.	.	.	.	.	.	6.79	45.12
Men's furnishings.....	19	18.1	35	86	9	7	1	1	1	.	.	.	.	.	4.95	50.07
Drugs.....	27	25.7	29	78	25	2	.	.	.	.	.	.	.	.	4.10	54.17
Millinery.....	19	18.1	27	87	13	4	2	.	.	.	.	.	.	.	3.82	57.99
Jewelry.....	18	17.1	21	86	15	3	.	.	.	.	.	.	.	.	2.97	60.96
Restaurant.....	16	15.2	20	89	13	2	1	.	.	.	.	.	.	.	2.83	63.79
Candy.....	15	14.3	18	90	12	3	.	.	.	.	.	.	.	.	2.55	66.34
Theatre.....	11	10.5	13	94	10	.	1	.	.	.	.	.	.	.	1.84	68.18
Furniture—new.....	7	6.7	12	98	4	1	2	.	.	.	.	.	.	.	1.70	69.87
Cigars.....	9	8.6	10	96	8	1	.	.	.	.	.	.	.	.	1.41	71.29
Bank.....	7	6.7	8	98	6	1	.	.	.	.	.	.	.	.	1.13	72.42
Hosiery.....	6	5.7	7	99	5	1	.	.	.	.	.	.	.	.	0.99	73.41
Haberdashery.....	6	5.7	6	99	6	.	.	.	.	.	.	.	.	.	0.85	74.26
Music.....	4	3.8	5	101	3	1	.	.	.	.	.	.	.	.	0.71	74.96
Furs.....	5	4.8	5	100	5	.	.	.	.	.	.	.	.	.	0.71	75.67
Grocery.....	3	2.9	4	102	2	1	.	.	.	.	.	.	.	.	0.57	76.24
Florist.....	4	3.8	4	101	4	.	.	.	.	.	.	.	.	.	0.57	76.80
Bakery.....	4	3.8	4	101	4	.	.	.	.	.	.	.	.	.	0.57	77.37
Garage.....	4	3.8	4	101	4	.	.	.	.	.	.	.	.	.	0.57	77.93
Radios.....	3	2.9	3	102	3	.	.	.	.	.	.	.	.	.	0.42	78.36
Dry goods.....	3	2.9	3	102	3	.	.	.	.	.	.	.	.	.	0.42	78.78
Curtains and upholstery.....	3	2.9	3	102	3	.	.	.	.	.	.	.	.	.	0.42	79.21
Tailor.....	3	2.9	3	102	3	.	.	.	.	.	.	.	.	.	0.42	79.63
Shoe repair.....	2	1.9	2	103	2	.	.	.	.	.	.	.	.	.	0.28	79.92
Pool.....	2	1.9	2	103	2	.	.	.	.	.	.	.	.	.	0.28	80.20
Household appliances.....	2	1.9	2	103	2	.	.	.	.	.	.	.	.	.	0.28	80.48
Food specialties.....	1	1.0	2	104	.	1	.	.	.	.	.	.	.	.	0.28	80.76
Barber.....	2	1.9	2	103	2	.	.	.	.	.	.	.	.	.	0.28	81.05
Meats.....	2	1.9	2	103	2	.	.	.	.	.	.	.	.	.	0.28	81.33
Children's wear.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	81.47
Laundry.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	81.61
Bottling works.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	81.75
Filling station.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	81.90
Paint and wall paper.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.04
Auto sales—new.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.18
Beer garden.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.32
Delicatessen.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.46
General market.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.60
Hardware.....	1	1.0	1	104	1	.	.	.	.	.	.	.	.	.	0.14	82.74
Miscellaneous.....	47	44.8	86	58	26	10	6	3	2	.	.	.	.	.	12.16	94.91
Vacant.....	20	19.1	36	85	13	1	4	1	1	.	.	.	.	.	5.09	100.00
All types.....			707												100.00	100.00

CHART I—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING DEPARTMENT STORES



Source: Table 7.

control type, and, indirectly, the degree of association between the retail types other than the control type.

Among the various uses associated in the same blocks with department stores, women's clothing outlets rank first in importance. This type appears in 35.2 per cent of all blocks, and constitutes 10.9 per cent of all uses. Next in order are shoe stores, which appear in 34.3 per cent of the blocks and make up 11 per cent of the uses. Next come variety stores with percentages of 30.5 and 6.8 respectively. Drugs, men's furnishings, millinery, jewelry, restaurants, and candy follow in order. Candy stores are found in 14.3 per cent of the blocks and constitute 2.6 per cent of the uses.

Another approach to the study of type association is through the interpretation of the figures indicating the relative importance of department stores in the other six controlled samples. The figures in Table 8 indicate that in the blocks containing variety stores, department stores are most important by a wide margin; that this type is considerably less important in the shoe store sample and of little significance in the remaining samples.

Another characteristic of department stores which may be measured is that of self-affinity, or the tendency for department stores to group in single blocks. It is well recognized, and can be demonstrated on occupancy maps, that department stores show a definite tendency to locate in blocks adjacent to one another. However, on the block basis of statistical analysis the data indicate that out of 116 department stores there are only eleven cases where two stores are located in a single block, while the remaining ninety-four stores are found alone (Table 7). This situation is undoubtedly due in large part to the size of department store units and the physical limitations of block units. The index of concentration appearing in Table 9 is of little value in the case of department stores because of the small number of cases available in the samples.

Blocks containing department stores may be compared with blocks containing other control types with respect

TABLE 8—FREQUENCY OF APPEARANCE OF VARIOUS RETAIL TYPES APPEARING IN THE PERCENTAGE OF ALL BLOCKS IN WHICH THERE IS ONE

Retail Type	CONTROLL					
	Department Stores		Variety Stores		Shoe Stores	
	Per Cent of Outlets	Per Cent of Blocks	Per Cent of Outlets	Per Cent of Blocks	Per Cent of Outlets	Per Cent of Blocks
All types.....	100.0	.....	100.0	.....	100.0	.....
Shoes.....	11.0	34.3	12.2	57.3	14.7	100.0
Women's clothing.....	10.9	35.2	13.4	60.7	7.4	43.8
Men's furnishings.....	5.0	18.1	4.4	27.0	7.2	39.3
Restaurant.....	2.8	15.2	1.8	15.7	6.7	47.1
Jewelry.....	3.0	17.1	4.6	30.3	5.6	41.1
Drugs.....	4.1	25.7	4.4	34.8	3.7	35.1
Millinery.....	3.8	18.1	3.4	25.8	3.4	28.7
Variety.....	6.8	30.5	16.5	100.0	2.6	19.9
Cigars.....	1.4	8.6	0.7	6.7	2.4	24.8
Theatre.....	1.9	10.5	2.0	15.7	1.9	15.7
Bank.....	1.1	6.7	0.9	7.9	1.9	16.9
Candy.....	2.6	14.3	2.3	16.9	1.8	18.7
Haberdashery.....	0.9	5.7	0.6	5.6	1.7	15.1
Department.....	16.4	100.0	5.7	42.7	1.5	14.8
Furniture—new.....	1.7	6.7	1.1	6.7	1.0	10.3
Tailor.....	0.4	2.9	0.1	1.1	1.0	10.3
Shoe repair.....	0.3	1.9	0.3	2.3	1.0	10.6
Household appliances.....	0.3	1.9	0.1	1.1	0.9	8.5
Hosiery.....	1.0	5.7	1.8	13.5	0.9	7.9
Dry goods.....	0.4	2.9	0.6	3.4	0.8	7.3
Beer garden.....	0.2	1.0	0.1	1.1	0.8	7.9
Furs.....	0.7	4.8	0.6	4.5	0.7	7.0
Hardware.....	0.1	1.0	0.1	1.1	0.7	6.3
Music.....	0.7	3.8	0.3	1.1	0.7	6.7
Barber.....	0.3	1.9	0.3	2.3	0.7	7.3
Paint and wall paper.....	0.1	1.0	0.1	1.1	0.6	5.1
Grocery.....	0.6	2.9	0.3	2.3	0.5	4.8
Florist.....	0.6	3.8	0.3	2.3	0.5	5.7
Cleaner.....	.....	.....	0.3	2.3	0.5	5.1
General market.....	0.1	1.0	0.4	3.4	0.5	4.5
Bakery.....	0.6	3.8	0.5	4.5	0.5	5.1
Curtains and upholstery.....	0.4	2.9	0.4	2.3	0.4	3.6
Food specialties.....	0.3	1.0	0.2	2.3	0.3	3.0
Parking lot.....	.....	.....	.....	.....	0.3	3.3
Delicatessen.....	0.1	1.0	.....	.....	0.2	2.4
Auto supplies.....	.....	.....	.....	.....	0.2	1.5
Meats.....	0.3	1.9	.....	.....	0.2	1.8
Radios.....	0.4	2.9	0.1	1.1	0.2	1.8
Children's wear.....	0.1	1.0	0.1	1.1	0.1	1.2
Pool.....	0.3	1.9	.....	.....	0.1	1.2
Bottling works.....	0.1	1.0	.....	.....	0.1	0.9
Laundry.....	0.1	1.0	.....	.....	0.1	0.9
Garage.....	0.6	3.8	0.2	1.1	.....	0.6
Heating equipment.....	.....	.....	.....	.....	.....	0.3
Filling station.....	0.1	1.0	0.1	1.1	.....	0.3
Auto sales—new.....	0.1	1.0	.....	.....	.....	.....
Auto sales—used.....	.....	.....	.....	.....	.....	.....
Plumber.....	.....	.....	.....	.....	.....	.....
Tires.....	.....	.....	.....	.....	.....	.....
Industrial.....	.....	.....	.....	.....	.....	.....
Miscellaneous.....	12.2	44.8	16.4	69.7	18.1	77.0
Vacant.....	5.1	19.1	2.3	13.5	4.9	36.0

RETAIL SITE SELECTION

THE CONTROLLED SAMPLES EXPRESSED AS THE PERCENTAGE OF ALL OUTLETS AND MORE REPRESENTATIVES OF THE ASSOCIATED RETAIL TYPE

SAMPLE								Retail Type
Jewelry Stores		Furniture Stores		Florist Shops		Theatres		
Per Cent of Outlets	Per Cent of Blocks	Per Cent of Outlets	Per Cent of Blocks	Per Cent of Outlets	Per Cent of Blocks	Per Cent of Outlets	Per Cent of Blocks	
100.0	....	100.0	....	100.0	....	100.0	....	All types
6.9	42.7	2.7	16.2	4.2	25.0	5.5	30.4	Shoes
5.9	31.6	2.5	11.7	4.4	26.3	3.3	20.0	Women's clothing
6.3	38.2	6.5	24.3	3.8	21.3	6.3	34.1	Men's furnishings
7.6	52.9	6.8	40.5	8.1	47.5	9.5	58.5	Restaurant
12.3	100.0	2.3	15.3	4.2	30.0	5.2	37.8	Jewelry
3.6	32.0	1.9	13.5	4.2	35.0	3.0	27.4	Drugs
2.8	22.8	0.5	2.7	2.1	18.8	1.7	13.3	Millinery
1.0	7.0	0.7	2.7	0.5	3.8	0.6	5.2	Variety
2.2	23.2	1.3	10.8	1.3	13.8	2.4	22.2	Cigars
2.4	20.2	1.5	12.6	1.1	11.3	10.7	100.0	Theatre
1.5	14.0	0.5	4.5	1.0	8.8	1.5	12.6	Bank
2.1	19.5	1.0	8.1	1.7	16.3	3.1	28.9	Candy
2.3	20.6	0.4	3.6	1.4	10.0	1.9	17.0	Haberdashery
0.7	6.6	0.4	3.6	0.6	6.3	0.9	7.4	Department
0.9	6.3	18.3	100.0	1.1	8.8	0.8	7.4	Furniture—new
1.4	13.2	1.1	8.1	0.5	5.0	1.2	10.4	Tailor
1.4	13.6	1.0	8.1	1.4	10.0	1.1	10.4	Shoe repair
0.8	6.6	1.6	13.5	1.4	12.5	0.8	6.7	Household appliances
0.6	5.5	0.1	0.9	0.3	2.5	0.1	1.5	Hosiery
0.7	5.9	0.3	2.7	....	....	0.9	8.2	Dry goods
0.4	4.4	0.5	4.5	0.1	1.3	1.2	12.6	Beer garden
0.3	2.6	2.0	9.0	0.7	7.5	0.4	3.0	Furs
0.2	1.8	0.7	5.4	0.4	3.8	0.4	4.4	Hardware
0.6	6.3	0.8	5.4	0.4	3.8	0.4	3.7	Music
1.6	16.9	1.7	12.6	2.3	20.0	1.8	17.0	Barber
0.7	5.2	1.2	8.1	0.7	6.3	0.4	3.7	Paint and wall paper
0.2	2.2	0.7	3.6	0.7	6.3	0.2	2.2	Grocery
1.3	13.2	0.9	7.2	10.4	100.0	0.8	8.9	Florist
0.9	8.8	0.9	6.3	1.4	13.8	1.2	12.6	Cleaner
0.4	3.3	0.1	0.9	0.1	1.3	0.1	0.7	General market
0.5	5.2	....	....	0.4	3.8	0.3	3.0	Bakery
0.1	1.5	1.1	7.2	0.7	6.3	0.3	3.0	Curtains and upholstery
....	....	0.4	3.6	0.7	6.3	0.3	3.0	Food specialties
0.6	4.8	1.5	11.7	1.5	12.5	1.5	11.9	Parking lot
0.1	1.1	0.1	0.9	0.4	3.8	0.1	0.7	Delicatessen
0.2	2.2	0.3	2.7	0.1	1.3	....	....	Auto supplies
0.1	1.1	....	....	0.1	1.3	....	....	Meats
0.6	6.3	0.1	0.9	0.1	1.3	0.6	5.9	Radios
0.1	1.5	0.1	0.9	0.1	1.3	0.2	2.2	Children's wear
0.1	1.1	....	....	....	....	0.3	3.0	Pool
....	0.4	....	....	....	....	0.3	1.5	Bottling works
0.2	1.8	....	....	0.1	1.3	0.1	0.7	Laundry
0.3	1.5	0.3	2.7	0.7	5.0	0.2	1.5	Garage
0.1	0.7	....	....	....	....	0.1	0.7	Heating equipment
0.1	0.7	0.4	3.6	....	....	0.1	1.5	Filling station
....	0.4	0.2	0.9	....	....	....	....	Auto sales—new
....	....	....	0.9	....	....	....	....	Auto sales—used
....	0.4	....	....	....	....	....	....	Plumber
....	0.4	....	....	0.3	2.5	0.4	3.0	Tires
....	....	0.1	0.9	0.3	2.5	....	....	Industrial
20.8	84.2	26.8	82.0	26.0	90.0	20.6	81.5	Miscellaneous
6.1	39.3	7.7	35.1	8.0	45.0	7.2	43.7	Vacant

TABLE 9—INDEX OF CONCENTRATION BY RETAIL TYPE IN EACH CONTROLLED

Retail Type	CONTROLLED							
	Department Store		Variety Store		Shoe Store		Jewelry Store	
	Index	Standard Error	Index	Standard Error	Index	Standard Error	Index	Standard Error
Department.....	...	..	98	14	102	14	118	25
Shoes.....	159	18	135	14	143	..	134	9
Women's clothing.....	154	18	142	14	143	9	159	12
Variety.....	124	18	...	..	125	13	133	25
Men's furnishings.....	161	27	143	24	168	10	156	12
Drugs.....	95	18	96	16	97	8	100	10
Millinery.....	125	24	108	20	113	11	118	13
Jewelry.....	106	23	113	18	120	8	...	..
Restaurant.....	117	26	100	26	119	8	114	8
Candy.....	110	26	112	26	96	12	103	13
Theatre.....	117	33	111	28	122	15	112	13
Furniture—new.....	145	42	...	..	122	20	138	28
Cigars.....	106	34	...	..	95	10	92	11
Hosiery.....	...	..	113	29	114	20	104	26
Bank.....	...	..	...	..	111	13	106	16
Haberdashery.....	...	..	...	..	116	15	112	14
Tailor.....	...	..	...	..	105	17	105	16
Shoe repair.....	...	..	...	..	95	17	101	16
Household appliances.....	...	..	...	..	116	20	121	25
Dry goods.....	...	..	...	..	115	21	112	26
Beer.....	...	..	...	..	103	20	106	29
Furs.....	...	..	...	..	111	21	...	..
Hardware.....	...	..	...	..	118	23	...	..
Music.....	...	..	...	..	108	22	97	24
Barber.....	...	..	...	..	97	20	94	11
Paint and wall paper.....	...	..	...	..	118	25	121	23
Grocery.....	...	..	...	..	120	27	...	..
Florist.....	...	..	...	..	97	22	101	16
Cleaner.....	...	..	...	..	108	25	100	20
General market.....	...	..	...	..	109	26	128	37
Bakery.....	...	..	...	..	97	24	98	26
Curtains and upholstery.....	...	..	...	..	106	29	...	..
Food specialties.....	...	..	...	..	121	35	...	..
Parking lot.....	...	..	...	..	107	31	115	29
Radios.....	...	..	...	..	...	..	103	10
Vacant.....	115	19	163	37	131	10	137	24

*The index of concentration, which was proposed by Mr. Winfred P. Wilson, Research Assistant in the Bureau of Business Research, is designed to show the extent to which instances of a given use type, no matter how rare or numerous in the sample, tend to gather in some blocks and avoid others. This measure is to be distinguished from a measure of density expressed as the average number of appearances per block. In fact, the index of concentration is designed to reflect deviations from this average density. If there were, for example, an average density of two instances per block of some use type in a given controlled sample and chance played no part in the distribution of instances, there would be just two uses in each and every block. Such perfect distribution does not occur. Some blocks will from chance alone contain more and some less than the average.

RETAIL SITE SELECTION

SAMPLE WHERE THERE ARE TEN OR MORE OCCURRENCES OF THE TYPE*

S A M P L E						Average of Indexes	Retail Type
Furniture Store		Florist Shop		Theatre			
Index	Standard Error	Index	Standard Error	Index	Standard Error		
...	..	...	..	120	33	110	Department
124	25	134	23	159	18	141	Shoes
156	33	153	26	149	22	151	Women's clothing
...	..	...	..	...	..	127	Variety
178	23	179	32	163	17	164	Men's furnishings
105	26	99	17	102	16	99	Drugs
...	..	103	25	123	25	115	Millinery
115	25	124	21	120	14	116	Jewelry
116	15	128	16	123	11	117	Restaurant
...	..	100	27	98	15	103	Candy
95	25	...	..	...	..	111	Theatre
...	..	...	..	120	35	131	Furniture—new
95	27	94	28	103	17	98	Cigars
...	..	...	..	...	..	110	Hosiery
...	..	...	..	116	25	111	Bank
...	..	128	39	115	22	118	Haberdashery
106	34	...	..	120	28	109	Tailor
...	..	120	36	107	27	106	Shoe repair
94	24	...	..	114	34	...	Household appliances
...	..	103	31	111	31	...	Dry goods
...	..	...	..	100	24	103	Beer
146	34	...	..	...	..	128	Furs
...	..	...	..	...	..	118	Hardware
...	..	...	..	...	..	102	Music
112	28	106	24	103	20	102	Barber
114	34	...	..	...	..	118	Paint and wall paper
...	..	...	..	...	..	120	Grocery
...	..	...	..	96	28	98	Florist
...	..	94	28	100	24	100	Cleaner
...	..	...	..	...	..	118	General market
...	..	...	..	...	..	98	Bakery
116	37	...	..	...	..	111	Curtains and upholstery
...	..	...	..	...	..	121	Food specialties
102	27	110	32	126	27	112	Parking lot
...	..	...	..	...	..	103	Radios
142	28	133	17	135	13	142	Vacant

the sample. If the multiple appearances of the use in question are more numerous than would be expected to result from chance, there is evidence of a tendency to concentrate. The "Lexis ratio" is an appropriate measure of concentration in the sense described here. It is based upon the deviations from the pro rata share per block. It is, to be exact, the ratio of the standard deviation of appearances per block to the standard deviation that would occur if only chance forces were operative. If the ratio is greater than one hundred, there is some positive tendency toward concentration. If it is less than one hundred, there is some active tendency for individual representation of the use to avoid the same blocks. For a discussion of the Lexis ratio, see Reitz, *Handbook of Mathematical Statistics*, p. 87.

to the degree of diversification in the associated uses. With respect to department stores it may be said that there is less diversification than in the case of any of the other control types, except variety stores. Five retail types—department stores, shoes, women's clothing, variety, and men's furnishings—account for 50 per cent of all the uses found in department store blocks (Table 7, and Chart I). The first ten uses in order of importance—the five listed above plus drugs, millinery, jewelry, restaurants, and candy—account for two-thirds of all the stores.

Another indication of the small degree of diversity of uses is the relatively low percentage of uses falling into the miscellaneous category—the smallest percentage of any of the control-type blocks, 12.2 per cent as compared with the highest figure of 26.8 per cent in case of blocks containing furniture stores. It might be argued that the low degree of diversification is a result of the fact that department stores are large units normally occupying a considerable proportion of the block frontage. Thus, the possible number of associated occupancies is lower than for the other control types. However, since department stores represent only 16.4 per cent of all uses occurring in blocks containing department stores, this factor appears not to be important. It would seem that the unusually low diversification which is revealed in the data can be explained only by a strong associative tendency between the control type and the limited variety of uses which predominate in the same blocks.

Variety. The retail types which may be considered most characteristic of blocks containing variety stores are women's clothing shops, which appear in 60.7 per cent of the blocks containing variety stores, and which constitute 13.4 per cent of all the uses in those blocks; shoe stores, appearing in 57.3 per cent of the blocks and constituting 12.2 per cent of the stores; department stores, found in 42.7 per cent of the blocks and accounting for 5.7 per cent of the uses; and jewelry, drugs, men's furnishings, and millinery, which appear in from 25 per cent to 30 per cent of the blocks and which account for from 3 per cent to

4 per cent of the uses (Table 10, and Chart II). The other retail types which are present in association with variety stores appear only infrequently and are numerically unimportant.

The relative strengths of the tendencies to associate with the other control types indicates that in the blocks containing department stores, variety stores are relatively more important than in any of the other controlled samples. Variety stores are considerably less frequent in the shoe store sample, and in the other controlled samples, variety stores are of negligible importance (Table 8).

The measurements of self-affinity or the tendency toward the concentration of units indicate that variety stores rank moderately high among the control uses in this respect (Table 9). Out of a sample of eighty-nine blocks containing variety stores, there were twenty cases where two stores were found in the same block and thirteen cases where three stores were found in the same block (Table 8).

Blocks containing variety stores show a lower degree of diversification than in the case of any other of the control types (Table 10, and Chart II). Four retail types—variety, women's clothing, shoes, and department store—make up one-half of all the uses in the variety store blocks; and this group plus jewelry, drugs, men's furnishings, millinery, and candy, a total of nine uses, constitute two-thirds of all stores in those blocks. A relatively low percentage of uses falls into the miscellaneous category—16.4 per cent. Vacancies constitute only 2.3 per cent of the stores in the variety store blocks or the lowest vacancy percentage among the controlled samples.

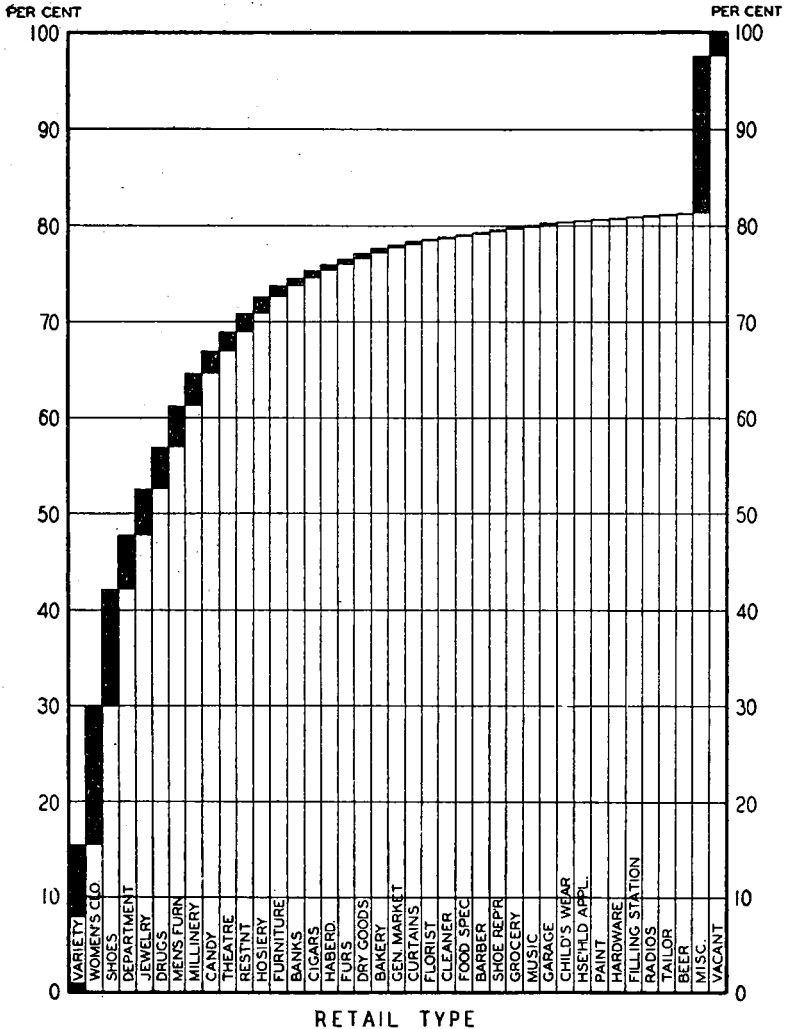
Shoes. Blocks containing shoe stores exhibit more diversification than in the case of blocks containing department stores and variety stores (Table 11, and Chart III). Women's clothing stores constitute the most frequently encountered single use, making up 7.4 per cent of all uses and appearing in 43.8 per cent of all blocks. This may be compared with the percentages of 11.0 and 13.4 representing the relative importance of the most important use

MICHIGAN BUSINESS STUDIES

TABLE 10—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING VARIETY STORES

Retail Type	Blocks Where Type Occurs		Appearances										Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units	
			Total	Number per Block											
	Number	Per Cent		0	1	2	3	4	5	6	7	8			
Control type (Variety store)	89	100.0	135	0	56	20	13							16.48	16.48
Women's clothing	54	60.7	110	35	25	14	20	2	1			2		13.43	29.91
Shoes	52	57.3	100	38	25	13	6	4	3					12.21	42.12
Department	38	42.7	47	51	30	7	1							5.74	47.86
Jewelry	27	30.3	38	62	17	9	1							4.64	52.50
Drugs	31	34.8	36	58	26	5								4.40	56.90
Men's furnishings	24	27.0	36	65	18	3	2			1				4.40	61.29
Millinery	23	25.8	28	66	19	3	1							3.42	64.71
Candy	15	16.9	19	74	11	4								2.32	67.03
Theatre	14	15.7	16	75	13		1							1.95	68.99
Restaurant	14	15.7	15	75	13	1								1.83	70.82
Hosiery	12	13.5	15	77	9	3								1.83	72.65
Furniture—new	6	6.7	9	83	4	1	1							1.10	73.75
Bank	7	7.9	7	82	7									0.85	74.60
Cigars	6	6.7	6	83	6									0.73	75.34
Haberdashery	5	5.6	5	84	5									0.61	75.95
Furs	4	4.5	5	85	3	1								0.61	76.56
Dry goods	3	3.4	5	86	2		1							0.61	77.17
Bakery	4	4.5	4	85	4									0.49	77.66
General market	3	3.4	3	86	3									0.37	78.02
Curtains and upholstery	2	2.3	3	87	1	1								0.37	78.39
Florist	2	2.3	2	87	2									0.24	78.63
Cleaner	2	2.3	2	87	2									0.24	78.88
Food specialties	2	2.3	2	87	2									0.24	79.12
Barber	2	2.3	2	87	2									0.24	79.37
Shoe repair	2	2.3	2	87	2									0.24	79.61
Grocery	2	2.3	2	87	2									0.24	79.85
Music	1	1.1	2	88		1								0.24	80.10
Garage	1	1.1	2	88		1								0.24	80.34
Children's wear	1	1.1	1	88	1									0.12	80.46
Household appliances	1	1.1	1	88	1									0.12	80.59
Paint and wall paper	1	1.1	1	88	1									0.12	80.71
Hardware	1	1.1	1	88	1									0.12	80.83
Filling station	1	1.1	1	88	1									0.12	80.95
Radios	1	1.1	1	88	1									0.12	81.07
Tailor	1	1.1	1	88	1									0.12	81.20
Beer garden	1	1.1	1	88	1									0.12	81.32
Miscellaneous	62	69.7	134	27	30	40	8	6	1		1	2	16.36	97.68	
Vacant	12	13.5	19	77	9	2					1		2.32	100.00	
All types	..	..	819	..	..	..	..	..	..	..	..	..	100.00	100.00	

CHART II—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING VARIETY STORES

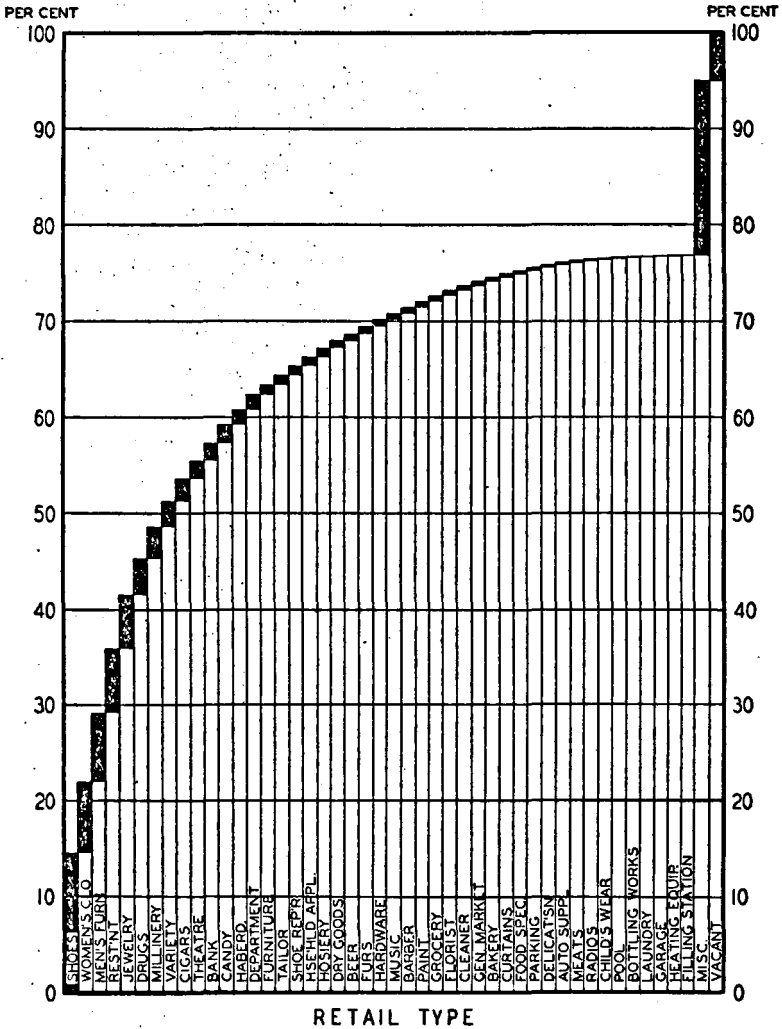


Source: Table 10.

TABLE 11—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING SHOE STORES

Retail Type	Blocks Where Type Occurs		Appearances													Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units	
	Number	Per Cent	Total	Number per Block														
				0	1	2	3	4	5	6	7	8	9	10	11			
Control type (Shoe store).....	331	100.0	538	0	204	78	31	9	7	1	1	1	1	1	1	1	14.65	14.65
Women's clothing.....	145	43.8	272	186	81	25	25	9	3	1	1	1	1	1	1	1	7.41	22.06
Men's furnishings.....	130	39.3	265	201	66	36	14	3	3	4	2	1	1	1	1	1	7.22	29.28
Restaurant.....	156	47.1	246	175	98	32	22	2	2	1	1	1	1	1	1	1	6.70	35.97
Jewelry.....	136	41.1	206	195	88	34	8	4	2	1	1	1	1	1	1	1	5.61	41.58
Drugs.....	116	35.1	136	215	98	16	2	1	1	1	1	1	1	1	1	1	3.70	45.29
Millinery.....	95	28.7	124	236	73	17	3	2	1	1	1	1	1	1	1	1	3.38	48.67
Variety.....	66	19.9	96	265	43	18	3	2	1	1	1	1	1	1	1	1	2.61	51.28
Cigars.....	82	24.8	88	249	76	6	1	1	1	1	1	1	1	1	1	1	2.40	53.68
Theatre.....	52	15.7	70	279	39	8	5	1	1	1	1	1	1	1	1	1	1.91	55.58
Bank.....	56	16.9	69	275	44	11	1	1	1	1	1	1	1	1	1	1	1.88	57.46
Candy.....	62	18.7	65	269	59	3	1	1	1	1	1	1	1	1	1	1	1.77	59.23
Haberdashery.....	50	15.1	63	281	39	10	1	1	1	1	1	1	1	1	1	1	1.72	60.95
Department.....	49	14.8	54	282	44	5	1	1	1	1	1	1	1	1	1	1	1.47	62.42
Furniture—new.....	31	10.3	38	300	27	2	1	1	1	1	1	1	1	1	1	1	1.03	63.45
Tailor.....	34	10.3	38	297	30	4	1	1	1	1	1	1	1	1	1	1	1.03	64.49
Shoe repair.....	35	10.6	35	296	35	1	1	1	1	1	1	1	1	1	1	1	0.95	65.44
Household appliances.....	28	8.5	33	303	25	1	2	1	1	1	1	1	1	1	1	1	0.90	66.34
Hosiery.....	26	7.9	32	305	20	6	1	1	1	1	1	1	1	1	1	1	0.87	67.21
Dry goods.....	24	7.3	30	307	18	6	1	1	1	1	1	1	1	1	1	1	0.82	68.03
Beer garden.....	26	7.9	28	205	24	2	1	1	1	1	1	1	1	1	1	1	0.76	68.79
Furs.....	23	7.0	27	308	19	4	1	1	1	1	1	1	1	1	1	1	0.74	69.53
Hardware.....	21	6.3	26	310	17	3	1	1	1	1	1	1	1	1	1	1	0.71	70.23
Music.....	22	6.7	25	309	19	3	1	1	1	1	1	1	1	1	1	1	0.68	70.92
Barber.....	24	7.3	24	307	24	1	1	1	1	1	1	1	1	1	1	1	0.65	71.57
Paint and wall paper.....	17	5.1	22	314	12	5	1	1	1	1	1	1	1	1	1	1	0.60	72.17
Grocery.....	16	4.8	20	315	13	2	1	1	1	1	1	1	1	1	1	1	0.54	72.71
Florist.....	19	5.7	19	312	19	1	1	1	1	1	1	1	1	1	1	1	0.52	73.23
Cleaner.....	17	5.1	19	314	15	2	1	1	1	1	1	1	1	1	1	1	0.52	73.75
General market.....	15	4.5	17	316	13	2	1	1	1	1	1	1	1	1	1	1	0.46	74.21
Bakery.....	17	5.1	17	314	17	1	1	1	1	1	1	1	1	1	1	1	0.46	74.67
Curtains and upholstery.....	12	3.6	13	319	11	1	1	1	1	1	1	1	1	1	1	1	0.35	75.03
Food specialties.....	10	3.0	12	321	9	1	1	1	1	1	1	1	1	1	1	1	0.33	75.35
Parking lot.....	11	3.3	12	320	10	1	1	1	1	1	1	1	1	1	1	1	0.33	75.68
Delicatessen.....	8	2.4	8	323	8	1	1	1	1	1	1	1	1	1	1	1	0.22	75.90
Auto supplies.....	5	1.5	8	326	2	3	1	1	1	1	1	1	1	1	1	1	0.22	76.12
Meats.....	6	1.8	7	325	5	1	1	1	1	1	1	1	1	1	1	1	0.19	76.31
Radios.....	6	1.8	6	325	6	1	1	1	1	1	1	1	1	1	1	1	0.16	76.47
Children's wear.....	4	1.2	4	327	4	1	1	1	1	1	1	1	1	1	1	1	0.11	76.58
Pool.....	4	1.2	4	327	4	1	1	1	1	1	1	1	1	1	1	1	0.11	76.69
Bottling works.....	3	0.9	3	328	3	1	1	1	1	1	1	1	1	1	1	1	0.08	76.77
Laundry.....	3	0.9	3	328	3	1	1	1	1	1	1	1	1	1	1	1	0.08	76.85
Garage.....	2	0.6	2	329	2	1	1	1	1	1	1	1	1	1	1	1	0.05	76.91
Heating equipment.....	1	0.3	1	330	1	1	1	1	1	1	1	1	1	1	1	1	0.03	76.93
Filling station.....	1	0.3	1	330	1	1	1	1	1	1	1	1	1	1	1	1	0.03	76.96
Miscellaneous.....	225	77.0	665	76	89	44	49	24	49	1	1	1	1	1	1	1	18.11	95.07
Vacant.....	119	36.0	181	212	84	21	5	5	4	1	1	1	1	1	1	1	4.93	100.00
All types.....			3,672														100.00	100.00

CHART III—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING SHOE STORES



Source: Table 11.

in blocks containing department stores and variety stores. The next most important uses associated with shoe stores are men's furnishings, restaurants and jewelry constituting 7.2 per cent, 6.7 per cent and 5.6 per cent of all uses respectively. Drugs, millinery, variety, and cigars appear in from 2.5 per cent to 4 per cent of the store units and in from 20 per cent to 35 per cent of the blocks. Each of the other uses encountered in conjunction with shoe stores constitutes less than 2 per cent of the units and appears in less than 20 per cent of the blocks.

The association of other of the control types with shoe stores is most pronounced in the case of variety stores and department stores (Table 8). The relative importance of shoe stores in the blocks containing the other control types is substantially lower, with the four categories found in the following order: jewelry, theatres, florists, and furniture.

The measure of relative concentration or self-affinity indicates that shoe stores show a strong tendency to group themselves, exceeded in degree only by women's clothing and men's furnishings (Table 9). Out of a total of 331 blocks containing shoe stores, 127 contained two or more shoe outlets, with seventy-eight having two stores, thirty-one containing three stores, nine blocks with four stores, seven blocks with five stores, one block with six stores, and one block with eight stores (Table 11). Shoe stores show a greater tendency for concentration when found in association with department stores and theatres than in association with any of the remaining control types (Table 9).

The diversification of uses in blocks containing shoe stores is somewhat greater than in the case of blocks containing department stores and variety stores (Table 11, and Chart III). Eight retail types—women's clothing, men's furnishings, restaurants, jewelry, drugs, millinery, and variety—account for 50 per cent of all uses, with a total of fifteen uses required to make up two-thirds of the occupancies. The proportion of uses falling into the miscellaneous category is 18.1 per cent or only a little higher than in the case of blocks containing variety stores.

Jewelry. As in the case of blocks containing shoe stores, there is no marked tendency for any particular retail types to be found in association with jewelry stores (Table 12, and Chart IV). Restaurants constitute 7.6 per cent of all uses in the sample, or the highest proportion among the various use types. Shoe stores, men's furnishings, and women's clothing follow closely behind. This same order exists when considering the proportion of blocks in which one or more of these use types appears in association with jewelry stores. Only six other types—drugs, millinery, theatres, haberdashery, cigars, and candy—account for more than 2 per cent of the total uses. The percentages range downward from drug stores, constituting 3.6 per cent of all uses, to 2.1 per cent for candy stores.

The measures of the relative degree of association with the other control types suggest that jewelry stores are less likely to be found in association with department stores and furniture stores than with theatres and shoe stores (Table 8).

The tendency of jewelry stores to concentrate is of moderate degree if the index of concentration can be accepted as indicative. The tendency is not so strong as in the case of shoes, women's clothing and men's furnishings (Table 9). Out of 272 blocks in the sample there are fifty-five cases where two jewelry stores appear in one block; eleven cases where three stores appear in one block; one case of four stores; and two cases of five stores in one block (Table 12).

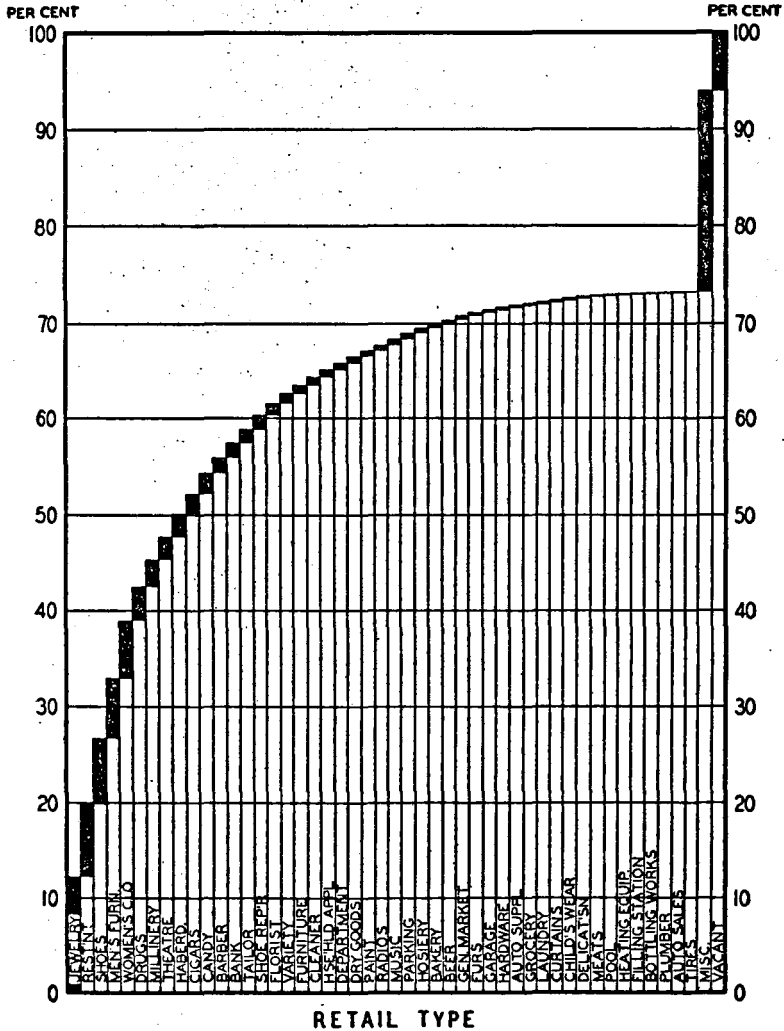
The relative degree of diversification in blocks containing jewelry stores is indicated by the fact that 50 per cent of all outlets in these blocks are made up from nine different retail types—jewelry, restaurants, shoes, women's clothing, men's furnishings, drugs, millinery, theatres, haberdashery—while to account for two-thirds of all store units the representatives of thirteen additional uses must be included (Table 12, and Chart IV). Compared to the other control types the diversification in blocks containing jewelry stores is about the same as that in blocks containing theatres, somewhat greater than in blocks containing shoe stores.

TABLE 12—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING JEWELRY STORES

Retail Type	Blocks Where Type Occurs		Appearances											Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units			
	Number	Per Cent	Total	Number per Block														
				0	1	2	3	4	5	6	7	8	9					
Control type (Jewelry store).....	272	100.0	360	0	203	55	11	1	2								12.32	12.32
Restaurant.....	144	52.9	221	128	93	33	12	4	2								7.56	19.88
Shoes.....	116	42.7	202	156	65	31	11	3	6								6.91	26.79
Men's furnishings.....	104	38.2	184	168	66	22	6	2	4	2	1			1			6.29	33.08
Women's clothing.....	86	31.6	173	186	44	21	8	7	2	3	1						5.92	39.00
Drugs.....	87	32.0	105	185	69	18											3.59	42.59
Millinery.....	62	22.8	82	210	47	12	1	2									2.81	45.40
Theatre.....	55	20.2	70	217	42	11	2										2.39	47.79
Haberdashery.....	56	20.6	68	216	47	7	1	1									2.33	50.12
Cigars.....	63	23.2	65	209	61	2											2.22	52.34
Candy.....	53	19.5	61	219	45	8											2.09	54.43
Barber.....	46	16.9	47	226	45	1											1.61	56.04
Bank.....	38	14.0	44	234	32	6											1.51	57.54
Tailor.....	36	13.2	41	236	31	5											1.40	58.95
Shoe repair.....	37	13.6	40	235	34	3											1.37	60.31
Florist.....	36	13.2	39	236	33	3											1.33	61.65
Variety.....	19	7.0	20	253	13	3	3										0.96	62.61
Furniture—new.....	17	6.3	25	255	13		4										0.86	63.46
Cleaner.....	24	8.8	25	248	23	1											0.86	64.32
Household appliances.....	18	6.6	23	254	14	3	1										0.79	65.10
Department.....	18	6.6	22	254	15	2	1										0.75	65.86
Dry goods.....	16	5.9	19	256	13	3											0.65	66.51
Paint and wall paper.....	14	5.2	19	258	9	5											0.65	67.16
Radios.....	17	6.3	18	255	16	1											0.62	67.77
Music.....	17	6.3	17	255	17												0.58	68.35
Parking lot.....	13	4.8	16	259	10	3											0.55	68.90
Hosiery.....	15	5.5	16	257	14	1											0.55	69.45
Bakery.....	14	5.2	14	258	14												0.48	69.93
Beer garden.....	12	4.4	13	260	11	1											0.44	70.37
General market.....	9	3.3	12	263	7	1	1										0.41	70.78
Furs.....	7	2.6	8	265	6	1											0.27	71.06
Garage.....	4	1.5	8	268	3				1								0.27	71.33
Hardware.....	5	1.8	7	267	4		1										0.24	71.57
Auto supplies.....	6	2.2	7	266	5	1											0.24	71.81
Grocery.....	6	2.2	7	266	5	1											0.24	72.05
Laundry.....	5	1.8	5	267	5												0.17	72.22
Curains and upholstery.....	4	1.5	4	268	4												0.14	72.36
Children's wear.....	4	1.5	4	268	4												0.14	72.49
Delicatessen.....	3	1.1	4	269	2	1											0.14	72.63
Meats.....	3	1.1	3	269	3												0.10	72.73
Pool.....	3	1.1	3	269	3												0.10	72.84
Heating equipment.....	2	0.7	2	270	2												0.07	72.90
Filling station.....	2	0.7	2	270	2												0.07	72.97
Bottling works.....	1	0.4	1	271	1												0.03	73.01
Plumber.....	1	0.4	1	271	1												0.03	73.04
Auto sales—new.....	1	0.4	1	271	1												0.03	73.08
Tires.....	1	0.4	1	271	1												0.03	73.11
Miscellaneous.....	229	84.2	609	43	66	52	47	22	42								20.83	93.94
Vacant.....	107	39.3	177	165	66	24	12	2	1	1							6.06	100.00
All types.....	...	...	2,923	...	...	...	...	...	...	...	...	...	...	...	...	...	100.00	100.00

RETAIL SITE SELECTION

CHART IV—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING JEWELRY STORES



Source: Table 12.

and less than in blocks containing furniture stores. The proportion of all uses falling into the miscellaneous category is 20.8 per cent in blocks containing jewelry stores, which constitutes a middle rank in this characteristic among the control uses.

Furniture. In the blocks in which furniture stores are represented, each of the two most prominent types constitutes between 6 and 7 per cent of the total of all retail stores in those blocks (Table 13, and Chart V). These two uses are restaurants, which are found in 40 per cent of the furniture store blocks, and men's furnishings, which are found in only 24 per cent of the blocks. The next three uses in order of relative importance are shoe stores, women's clothing, and jewelry. The percentages for these types range downward from 2.7 per cent to 2.3 per cent of the total occupancies, and the uses appear in from 10 to 15 per cent of the blocks. Each of the following categories, which appear in order of descending importance, represents between 1 per cent and 2 per cent of the total uses: furs, drugs, barber shops, household appliances, parking lots, theatres, cigars, paint, curtains, and tailor.

Only a relatively low degree of association with furniture stores is evidenced in blocks containing the other control types. In no cases do furniture stores constitute more than 2 per cent of the uses in blocks containing the other control types or appear in more than 11 per cent of the blocks (Table 8).

Compared with the other control types, furniture stores are characterized by a relatively high degree of self-affinity, although this propensity is not so pronounced as in the cases of shoes, men's furnishings, and women's clothing (Table 9). In 111 blocks in which furniture stores were found, twenty contained two units, twelve contained three units, three contained four units, and one contained five units (Table 13).

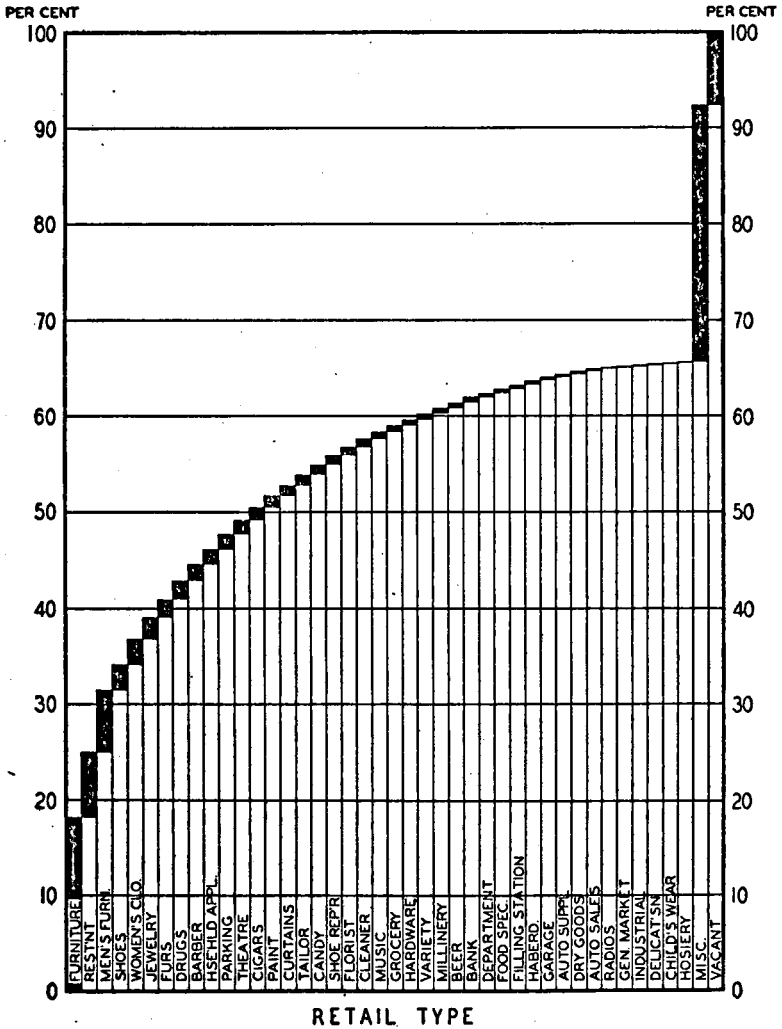
The diversification of use types in blocks containing furniture stores is as great as in the case of any of the other control types, except florists, where the diversification is about the same (Table 13, and Chart V). To make up

RETAIL SITE SELECTION

TABLE 13—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING FURNITURE STORES

Retail Type	Blocks Where Type Occurs		Appearances											Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units
			Total	Number per Block											
	Number	Per Cent		0	1	2	3	4	5	6	7	8	9		
Control type (Furniture store)	111	100.0	168	0	75	20	12	3	1					18.26	18.26
Restaurant	45	40.5	62	66	34	7	2	2						6.74	25.00
Men's furnishings	27	24.3	60	84	11	8	4	3					1	6.52	31.52
Shoes	18	16.2	25	93	13	3	2							2.72	34.24
Women's clothing	13	11.7	23	98	8	2	2		1					2.50	36.74
Jewelry	17	15.3	21	94	14	2	1							2.28	39.02
Furs	10	9.0	18	101	5	2	3							1.96	40.98
Drugs	15	13.5	17	96	13									1.85	42.83
Barber	14	12.6	16	97	13		1							1.74	44.57
Household appliances	15	13.5	15	96	15									1.63	46.20
Parking lot	13	11.7	14	98	12	1								1.52	47.72
Theatre	14	12.6	14	97	14									1.52	49.24
Cigars	12	10.8	12	99	12									1.30	50.54
Paint and wall paper	9	8.1	11	102	7	2								1.20	51.74
Curtains and upholstery	8	7.2	10	103	6	2								1.09	52.83
Tailor	9	8.1	10	102	8	1								1.09	53.91
Candy	9	8.1	9	102	9									0.98	54.89
Shoe repair	9	8.1	9	102	9									0.98	55.87
Florist	8	7.2	8	103	8									0.87	56.74
Cleaner	7	6.3	8	104	6	1								0.87	57.61
Music	6	5.4	7	105	5	1								0.76	58.37
Grocery	4	3.6	6	107	3		1							0.65	59.02
Hardware	6	5.4	6	105	6									0.65	59.67
Variety	3	2.7	6	108	1	1								0.65	60.33
Millinery	3	2.7	5	108	1	2								0.54	60.87
Beer garden	5	4.5	5	106	5									0.54	61.41
Bank	5	4.5	5	106	5									0.54	61.96
Department	4	3.6	4	107	4									0.43	62.39
Food specialties	4	3.6	4	107	4									0.43	62.83
Filling station	4	3.6	4	107	4									0.43	63.26
Haberdashery	4	3.6	4	107	4									0.43	63.70
Garage	3	2.7	3	108	3									0.33	64.02
Auto supplies	3	2.7	3	108	3									0.33	64.35
Dry goods	3	2.7	3	108	3									0.33	64.67
Auto sales—new	1	0.9	1	110	1									0.11	64.78
Auto sales—used	1	0.9	1	110	1									0.11	64.89
Radios	1	0.9	1	110	1									0.11	65.00
General market	1	0.9	1	110	1									0.11	65.11
Industrial	1	0.9	1	110	1									0.11	65.22
Delicatessen	1	0.9	1	110	1									0.11	65.33
Children's wear	1	0.9	1	110	1									0.11	65.43
Hosiery	1	0.9	1	110	1									0.11	65.54
Miscellaneous	91	82.0	246	20	22	27	12	16	14					26.74	92.28
Vacant	39	35.1	71	72	20	12	3	2	2					7.72	100.00
All types . . . . .	..	...	920											100.00	100.00

CHART V—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING FURNITURE STORES



Source: Table 13.

50 per cent of all uses in blocks containing furniture stores, the representatives of thirteen types are required, arranged as follows in order of relative importance: furniture, restaurants, men's furnishings, shoes, women's clothing, jewelry, furs, drugs, barber, household appliances, parking lots, theatres, and cigars. To make up two-thirds of all uses the representatives of twenty-eight additional types must be included. On a basis of this particular measure of diversification the blocks containing florist shops and furniture stores appear to be much more highly diversified than in the case of any of the other control types. The miscellaneous category contains 26.7 per cent of all uses in furniture store blocks, which is the highest percentage among the control types.

Florists. By far the most important single use in blocks containing florist shops are restaurants (Table 14, and Chart VI). This type constitutes 8.1 per cent of all uses and appears in 47.5 per cent of all blocks. Following restaurants in importance come a group of four uses—women's clothing, drugs, shoes, and jewelry—each constituting from 4 per cent to 4½ per cent of all uses and appearing in from 25 per cent to 35 per cent of all blocks. Men's furnishings constitute 3.8 per cent of all uses, while barber shops and millinery stores are the only two types accounting for more than 2 per cent of the total occupancies.

In none of the controlled samples are florists an important use type. The greatest importance is in the case of the jewelry store sample, where the two uses are found associated in 13.2 per cent of the blocks and where florist shops represent 1.33 per cent of the uses (Table 8).

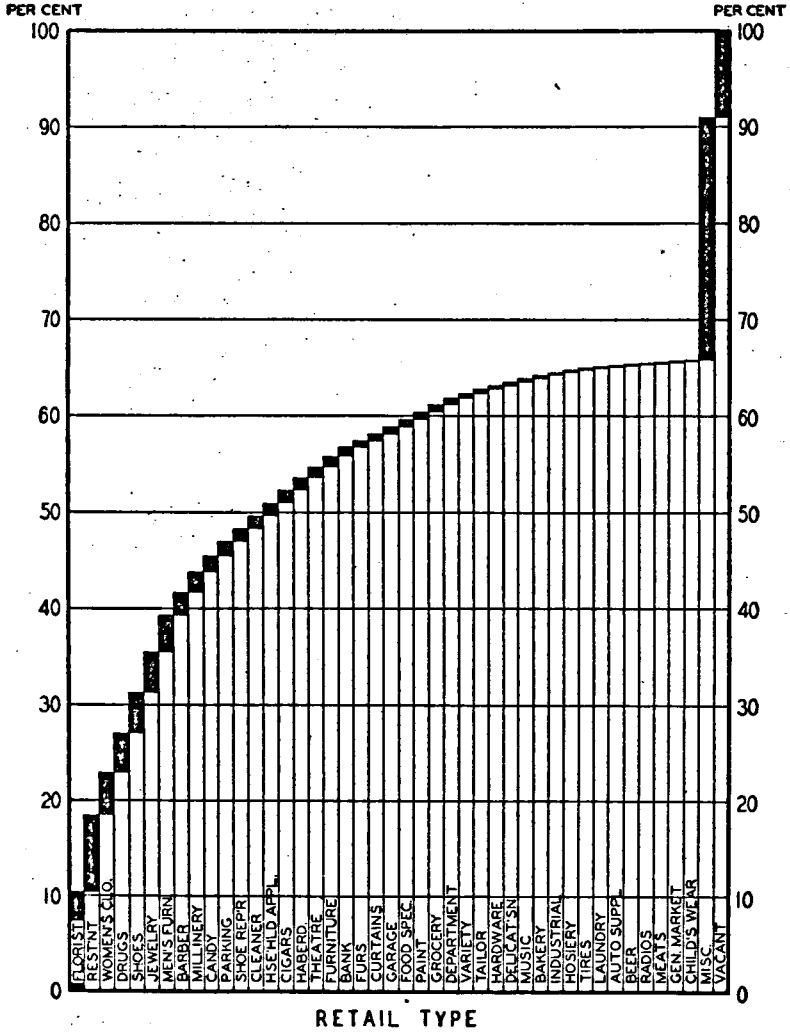
There appears to be very little tendency on the part of florists to locate in proximity to one another, although the index of concentration for this type is not highly dependable (Table 9). In the eighty blocks containing florist shops, seventy-five were found to contain only one representative and five to contain two representatives each (Table 14).

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TABLE 14—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING FLORIST SHOPS

Retail Type	Blocks Where Type Occurs		Appearances											Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units			
	Number	Per Cent	Total	Number per Block														
				0	1	2	3	4	5	6	7	8	9					
Control type (Florist shop).....	80	100.0	85	0	75	5											10.44	10.44
Restaurant.....	38	47.5	66	42	20	12	3	2	1								8.11	18.55
Women's clothing.....	21	26.3	36	59	14	4		1	2								4.42	22.97
Drugs.....	28	35.0	34	52	22	6											4.18	27.15
Shoes.....	20	25.0	34	60	10	7	2	1									4.18	31.33
Jewelry.....	24	30.0	34	56	18	3	2	1									4.18	35.50
Men's furnishings.....	17	21.3	31	63	11	4		1							1		3.81	39.31
Barber.....	16	20.0	19	64	13	3											2.33	41.65
Millinery.....	15	18.8	17	65	13	2											2.09	43.73
Candy.....	13	16.3	14	67	12	1											1.72	45.45
Parking lot.....	10	12.5	12	70	8	2											1.47	46.93
Shoe repair.....	8	10.0	11	72	5	3											1.35	48.28
Cleaner.....	11	13.8	11	69	11												1.35	49.63
Household appliances.....	10	12.5	11	70	9	1											1.35	50.98
Cigars.....	11	13.8	11	69	11												1.35	52.33
Haberdashery.....	8	10.0	11	72	6	1	1										1.35	53.69
Theatre.....	9	11.3	9	71	9												1.11	54.79
Furniture—new.....	7	8.8	9	73	6		1										1.11	55.90
Bank.....	7	8.8	8	73	6	1											0.98	56.88
Furs.....	6	7.5	6	74	6												0.74	57.62
Curtains and upholstery.....	5	6.3	6	75	4	1											0.74	58.35
Garage.....	4	5.0	6	76	3		1										0.74	59.09
Food specialties.....	5	6.3	6	75	4	1											0.74	59.83
Paint and wall paper.....	5	6.3	6	75	4	1											0.74	60.57
Grocery.....	5	6.3	6	75	4	1											0.74	61.30
Department.....	5	6.3	5	75	5												0.61	61.92
Variety.....	3	3.8	4	77	2	1											0.49	62.41
Tailor.....	4	5.0	4	76	4												0.49	62.90
Hardware.....	3	3.8	3	77	3												0.37	63.27
Delicatessen.....	3	3.8	3	77	3												0.37	63.64
Music.....	3	3.8	3	77	3												0.37	64.00
Bakery.....	3	3.8	3	77	3												0.37	64.37
Industrial.....	2	2.5	2	78	2												0.25	64.62
Hosiery.....	2	2.5	2	78	2												0.25	64.86
Tires.....	2	2.5	2	78	2												0.25	65.11
Laundry.....	1	1.3	1	79	1												0.12	65.23
Auto supplies.....	1	1.3	1	79	1												0.12	65.36
Beer garden.....	1	1.3	1	79	1												0.12	65.48
Radios.....	1	1.3	1	79	1												0.12	65.60
Meats.....	1	1.3	1	79	1												0.12	65.72
General market.....	1	1.3	1	79	1												0.12	65.85
Children's wear.....	1	1.3	1	79	1												0.12	65.97
Miscellaneous.....	72	90.0	212	8	17	14	16	6	19								26.04	92.01
Vacant.....	36	45.0	65	44	17	14	2	1	2								7.99	100.00
All types.....	..	...	814	..	..	..	..	..	..	..	..	..	..	..	..	..	100.00	100.00

CHART VI—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING FLORISTS



Source: Table 14.

In point of diversification of use types, blocks containing florist shops rank at the top with blocks containing furniture stores (Table 14, and Chart VI). The representatives of the following thirteen use types are required to make up one-half of the total uses: florists, restaurants, women's clothing, drugs, shoes, jewelry, men's furnishings, barber, millinery, candy, parking lots, shoe repair, and cleaners. The representatives of twenty-nine additional uses are required to make up two-thirds of the total. The miscellaneous category accounts for 26 per cent of all uses, or approximately the same figure as in the case of the furniture store sample.

Theatres. There are almost as many restaurants in blocks containing theatres as there are theatres (Table 15, and Chart VII). Theatres represent 10.7 per cent of all uses, while restaurants represent 9.2 per cent. The next types in order of importance are men's furnishings, shoes, and jewelry, constituting respectively 6.3 per cent, 5.6 per cent, and 5.2 per cent of the total. Restaurants are found in 58.5 per cent of all blocks, while jewelry, men's furnishings, and shoes come next in order with 37.8 per cent, 34.1 per cent, and 30.4 per cent respectively. Women's clothing stores, candy and drugs each account for about 3 per cent of all uses, while cigar stores constitute about 2.4 per cent.

The data indicate that theatres are more likely to be found in conjunction with jewelry stores than associated with any of the other control types (Table 8). However, among the controlled samples, the spread in values representing the percentage of uses accounted for by theatres is so small that any conclusions are of doubtful significance.

Theatres show no strong tendency to group themselves in the same blocks (Table 9). In 135 blocks containing theatres, two theatres per block were found only in thirteen cases and three theatres per block in three cases (Table 15).

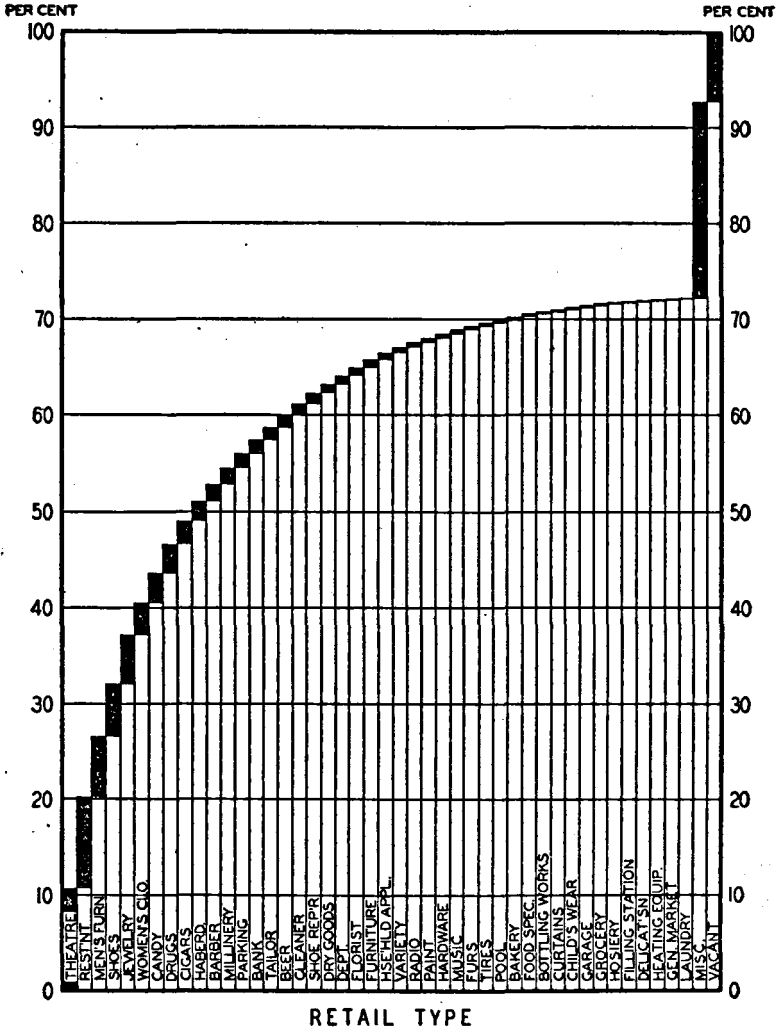
The diversification of retail uses found associated with

RETAIL SITE SELECTION

TABLE 15—OCCURRENCE OF RETAIL TYPES IN BLOCKS CONTAINING THEATRES

Retail Type	Blocks Where Type Occurs		Appearances											Per Cent of Total Store Units	Cumulative Per Cent of Total Store Units			
	Number	Per Cent	Total	Number per Block														
				0	1	2	3	4	5	6	7	8						
Control type (Theatre)	135	100.0	154	0	119	13	3										10.69	10.69
Restaurant	79	58.5	137	56	43	24	6	2	4								9.51	20.19
Men's furnishings	46	34.1	91	89	25	10	6	1	2	1							6.32	26.51
Shoes	41	30.4	80	94	23	9	3	1	4	1							5.55	32.06
Jewelry	51	37.8	75	84	33	15	1	1	1								5.20	37.27
Women's clothing	27	20.0	47	108	16	7		3	1								3.26	40.53
Landy	39	28.9	45	96	33	6											3.12	43.65
Drugs	37	27.4	43	98	32	4	1										2.98	46.63
Cigars	30	22.2	35	105	25	5											2.43	49.06
Haberdashery	23	17.0	28	112	20	1	2										1.94	51.01
Barber	23	17.0	26	112	20	3											1.80	52.81
Millinery	18	13.3	24	117	14	2	2										1.67	54.48
Parking lot	16	11.9	22	119	12	2	2										1.53	56.00
Bank	17	12.6	21	118	14	2	1										1.46	57.46
Tailor	14	10.4	18	121	11	2	1										1.25	58.71
Beer garden	17	12.6	18	118	16	1											1.25	59.96
Cleaner	17	12.6	18	118	16	1											1.25	61.21
Shoe repair	14	10.4	16	121	12	2											1.11	62.32
Dry goods	11	8.2	13	124	9	2											0.90	63.22
Department	10	7.4	12	125	9		1										0.90	64.12
Florist	12	8.9	12	123	12												0.83	64.95
Furniture—new	10	7.4	12	125	9		1										0.83	65.79
Household appliances	9	6.7	11	126	7	2											0.76	66.55
Variety	7	5.2	8	128	6	1											0.56	67.11
Radios	8	5.9	8	127	8												0.56	67.66
Paint and wall paper	5	3.7	6	130	4	1											0.42	68.08
Hardware	6	4.4	6	129	6												0.42	68.49
Music	5	3.7	6	130	4	1											0.42	68.91
Furs	4	3.0	5	131	3	1											0.35	69.26
Fires	4	3.0	5	131	3	1											0.35	69.60
Pool	4	3.0	4	131	4												0.28	69.88
Bakery	4	3.0	4	131	4												0.28	70.16
Food specialties	4	3.0	4	131													0.28	70.44
Bottling works	2	1.5	4	133	1		1										0.28	70.71
Curtains and upholstery	4	3.0	4	131	4												0.28	70.99
Children's wear	3	2.2	3	132	3												0.21	71.20
Garage	2	1.5	3	133	1	1											0.21	71.41
Grocery	3	2.2	3	132	3												0.21	71.62
Hosiery	2	1.5	2	133	2												0.14	71.76
Filling station	2	1.5	2	133	2												0.14	71.89
Delicatessen	1	0.7	1	134	1												0.07	71.96
Heating equipment	1	0.7	1	134	1												0.07	72.03
General market	1	0.7	1	134	1												0.07	72.10
Laundry	1	0.7	1	134	1												0.07	72.17
Miscellaneous	110	81.5	297	25	28	32	17	11	22								20.61	92.78
Vacant	59	43.7	104	76	34	13	7	2	3								7.22	100.00
All types . . . . .	..	...	1,441	...	...	...	...	...	...	...	...	...	...	...	...	...	100.00	100.00

CHART VII—PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGE OF RETAIL USES IN BLOCKS CONTAINING THEATRES



Source: Table 15.

theatres is about the same as that found associated with jewelry stores and shoe stores (Table 15, and Chart VII). This is a somewhat greater degree of diversification than in the case of department store and variety store blocks, but considerably less than for blocks containing florist shops and furniture stores. In the case of theatres, the following nine uses make up one-half of the total occupancies: theatres, restaurants, men's furnishings, shoes, jewelry, women's clothing, candy, drugs, cigars. To account for two-thirds of the total appearances, the representatives of fourteen additional types must be added. The miscellaneous category contains 20.6 per cent of all the uses, or about the same as in the case of blocks containing shoe stores and jewelry stores.

Location Characteristics of Associated Uses

It will be recalled that the basic data for the statistical analysis of the central retail structure were collected on the basis of seven control types. A tabulation was prepared showing the occupancies in all blocks containing each control type and with this information an attempt was made to describe its location characteristics. As a by-product of this procedure, it is possible to explore in a limited way the location characteristics of the associated retail types. This can be effected by analyzing the relative importance of these types in blocks containing the several control types, and by describing the tendency for concentration of each associated type as it appears in the seven samples. A number of the more important associated retail types will be analyzed on these bases, and an attempt made to indicate the relative tendencies for association with each of the seven control types. This process will suggest the general character of the area in which the associated type is likely to be found.

Women's clothing. Women's clothing stores appear to be more important in blocks containing variety stores than in any other of the control blocks (Table 8). This type appears in 60.7 per cent of the variety store blocks

and accounts for 13.4 per cent of all uses, or a larger proportion than any other type, except variety stores. However, in these blocks, shoe stores are almost as important. In blocks containing department stores, women's clothing stores are also one of the first two types in point of relative importance. Both shoe stores and women's clothing stores appear in approximately 35 per cent of the blocks and each accounts for about 11 per cent of the uses.

In blocks containing shoe stores, women's clothing stores, men's furnishings, and restaurants rank at the top in importance, with jewelry stores not far behind. It is a reasonable assumption that had it been possible to separate the data for women's shoe stores and men's shoe stores, a strong associative tendency would have been indicated between women's shoe stores and women's clothing stores.

In the remaining four samples, showing the uses appearing in association with jewelry stores, furniture stores, florists' shops and theatres, women's clothing stores are of less importance, ranking from third to fifth in relative frequency. In these blocks, the degree of association indicated probably results from the appearance of the control uses in blocks which are primarily devoted to women's shopping goods, rather than because of any magnetic attraction for women's clothing stores on the part of these four control uses. It must be remembered that women's clothing stores are, together with shoe stores, the most numerous of the downtown business uses. The tendency for women's clothing stores to cluster is stronger than in any other use type except men's furnishings (Table 9).

In summary, it appears that the most characteristic companions of women's clothing shops in the central business area are variety stores, department stores, and shoe stores, and, as will appear later, millinery and hosiery shops.

Millinery. This type is not important in point of number of outlets, but demonstrates some tendency to be found

more frequently in association with variety stores, department stores and shoe stores than with the other control types (Table 8). Thus, millinery shops are likely to be found in those same blocks where women's clothing stores are relatively important.

Only a moderate tendency for concentration of millinery stores is indicated by the data (Table 9).

Hosiery. Like millinery shops, these specialty shops are not numerous (Table 8). There is a definite tendency for this type to be most important in the same blocks as the previous two types. By far the greatest importance is indicated in the variety store blocks where hosiery shops appear in 13.5 per cent of the blocks and constitute 1.8 per cent of the uses. This type appears less frequently in blocks containing department stores, shoe stores and jewelry stores, and is rarely found in the other control blocks.

Furs. Since furs fall in the classification of women's apparel, it might be expected that this type of outlet would be more important in the blocks containing the women's shopping outlets than in any of the other areas within the central business district. However, the data indicate that this type is more important in blocks containing furniture stores than in any of the other control blocks (Table 8). Fur stores appear in 9.0 per cent of all blocks containing furniture stores and account for 2.0 per cent of the uses. Of the remaining control blocks, fur stores are more important in blocks containing florist shops and shoe stores. Fur stores encountered in blocks containing furniture stores show a marked tendency for concentration (Table 9).

Candy. The highest relative importance for candy shops is found in blocks containing theatres, with blocks containing jewelry stores and variety stores well behind (Table 8). Candy stores are relatively rare in blocks containing furniture stores, but are encountered more frequently in association with florist shops. The data suggest that

there is little tendency for candy stores to cluster (Table 9).

Men's furnishings. The variation in relative importance among the seven control samples is less for men's furnishings than for any of the classifications so far discussed (Table 8). This type is least important in blocks containing florist shops where it accounts for 3.8 per cent of the uses and appears in 21.3 per cent of the blocks. It is encountered only a little more frequently in blocks containing variety stores and department stores where it constitutes 4.4 per cent and 5.0 per cent of the uses respectively. In blocks containing jewelry stores, furniture stores, shoe stores, and theatres, this type represents from 6.3 per cent to 7.2 per cent of the uses and appears in from 25 per cent to 40 per cent of the blocks.

The data suggest that men's furnishings stores are likely to be most frequently encountered in the same blocks where restaurants are well represented. In blocks containing furniture stores and theatres, restaurants and men's furnishings stores hold the first two places in relative importance. In blocks containing shoe stores, they rank second and third. This apparent affinity does not hold for blocks containing florist shops, but in department store and variety store blocks both restaurants and men's furnishings are of but moderate importance.

There is some indication in the data of a definite affinity between shoe stores and men's furnishings stores. With respect to men's shoe stores, this attraction undoubtedly exists.

The tendency for the concentration on the part of men's furnishings stores is substantially stronger than for any other retail type (Table 9).

Haberdashery. Haberdasheries are more important in blocks containing jewelry stores than in any of the other controlled samples (Table 8). In jewelry store blocks this type appears in one out of every five blocks and constitutes 2.3 per cent of all uses. It will be recalled that men's furnishings stores were likewise relatively important in

jewelry store blocks. Haberdasheries are somewhat less important in the blocks containing theatres and shoe stores and are rare in blocks containing department stores, variety stores, and furniture stores. It is interesting to note that in the case of furniture store blocks, men's furnishings stores are among the first three most important uses, while haberdasheries are far down the scale.

Only a moderate tendency for concentration is indicated for haberdasheries (Table 9).

Tobacco. In the case of blocks containing shoe stores, jewelry stores, and theatres, tobacco stores are of about the same importance, appearing in from 22 per cent to 25 per cent of the blocks and constituting from 2.2 per cent to 2.4 per cent of the uses (Table 8). In the case of furniture store and florist shop blocks, tobacco stores appear in only from 10 per cent to 14 per cent of the blocks and account for from 1.3 per cent to 1.4 per cent of the uses. In department store and variety store blocks they are even less important. There is little tendency for tobacco stores to be found in clusters (Table 9).

Restaurants. In blocks containing florist shops and theatres, restaurants are encountered more frequently than in any of the other controlled samples (Table 8). Furthermore, in these two cases restaurants represent the most important use, with the exception of the control type. In blocks containing furniture stores and jewelry stores, restaurants are the most important use outside of the control use, but do not represent quite so high a proportion of all uses. In association with shoe stores, restaurants rank high in frequency, but in the variety store and department store blocks, restaurants appear with relative infrequency. The apparent affinity between restaurants and men's furnishings stores has already been discussed in connection with the latter use. There is a moderate tendency for restaurants to be found in close proximity with one another (Table 9).

Drugs. Drug stores are the most ubiquitous of all downtown retail types (Table 8). In all except blocks containing

furniture stores there is no significant difference in relative importance. Drug stores appear in from 25 per cent to 35 per cent of all blocks and make up from 3 per cent to 4½ per cent of all uses. In blocks containing furniture stores, however, the relative importance is substantially lower with an appearance in only 13.5 per cent of the blocks and a frequency indicated by 1.9 per cent of the uses.

There is little tendency for drug stores to concentrate, although the index of concentration shows an unusual consistency as between the various control samples (Table 9). Because of the method of collecting the data on a block basis, the extent of geographic concentration is not adequately reflected. In case drug stores were found on all four corners of an intersection, a concentrative tendency would not be reflected statistically. This deficiency in method is particularly significant in the case of drug stores, which are characteristically corner occupants.

Barber. In blocks containing florist shops, barber shops, as ground floor occupants, were found in one out of every four blocks and accounted for 2.3 per cent of all the uses (Table 8). This type was of somewhat lesser importance in blocks containing theatres and of still less importance in blocks containing jewelry stores and furniture stores. In the last case, barber shops appeared in 12.6 per cent of all blocks and accounted for 1.7 per cent of the uses. In the other control samples, barber shops were relatively rare.

Shoe repair. In all of the control samples, except for department stores and variety stores, shoe repair shops are found in roughly 10 per cent of all blocks and constitute from 1.0 per cent to 1.4 per cent of the uses (Table 8). In the two exceptional cases, this type is rarely encountered.

Household appliances. This type is found more frequently in blocks containing furniture stores and florist shops than in the other control samples (Table 8). It is less important in blocks containing jewelry stores, shoe

stores, and theatres, and relatively insignificant in blocks containing variety stores and department stores.

Radios. This retail type and those which follow are numerically unimportant, but do indicate a sufficiently wide spread in relative importance as between the several control samples to warrant brief mention (Table 8). In the case of radio shops, the data indicate a greater frequency in association with jewelry stores and theatres than in the other samples.

Curtains. By a relatively wide margin, curtain shops are found to be most important in blocks containing furniture stores.

Paint. It is also true in the case of paint stores that they are most important in blocks containing furniture stores.

Groceries. Groceries are an unimportant central business district use. As between the control types, groceries are found most frequently in association with florist shops, but appear in only 6.3 per cent of the blocks and constitute but 0.7 per cent of the uses.

Parking lots. Parking lots were found to be of insignificant importance, except in the cases of blocks containing theatres, florist shops, and furniture stores, in which they show a consistent importance as indicated by appearances in about 12 per cent of the blocks and by a frequency accounting for 1.5 per cent of the uses.

CHAPTER 4

LOCATION CHARACTERISTICS AND BUYING HABITS

The concept of the city as an economic mechanism was presented in Chapter 2. The theory was advanced that if the pattern of general use areas within the city is the product of economic forces, then as a logical extension of this assumption, it may follow that the special internal pattern of each functional area is of economic origin. Thus, in the central business district of a large city the structural arrangement of land uses might be represented as constituting an economic machine whose parts have been arranged and rearranged until there is approached the maximum of efficiency in the performance of its commercial functions.

In the last chapter, an attempt was made to describe the general character of the central retail pattern, and to indicate the tendencies of orientation among the component parts of the retailing mechanism. The rough measurements of associative tendencies have provided a quantitative expression of the geographical type relationships which are observable in the business cores of the larger cities. The analysis has demonstrated that there does exist a definable retail structure, a framework composed of members arranged in a generally predictable pattern.

The first step in demonstrating the underlying hypothesis of this study of retail structure, i.e., that there is present in the growth process of retail areas an economic causation which gives form and reason to the matured district, will be an attempt to explain the existing retail groupings in economic terms. Such an explanation must be based on an analysis of the economic functions of the area, and a differentiation of the various retail types with respect to their special functions. The approach to the analysis of the several types will require an interpretation of the

buying behavior of consumers in purchasing various retail items.

Merchants select and bid competitively for sites for their stores from among optional locations on the basis of their predictions of net return. If retail productivity were not affected by location, there would be no site competition among merchants. Rent would be a minor consideration, and would be determined by the productivity of the land in some utilization which is in competition with retail use. In practice, however, for any given retail site there are ordinarily a number of potential bidders representing different retail types. The maximum rent bid of each merchant is determined by that amount which would leave a balance of net profit after rent which is just greater than could be earned by operating a store on any optional site in light of the amount of the rent which would be necessary to outbid other merchants. The determination of this maximum requires an estimate of the volume of gross sales, cost of goods sold, and operating costs for a hypothetical store on the site under consideration, and on each optional site. It might be said that the successful bidder for any site will be that merchant who can most profitably exploit the location.

The most important variables among the determinants of the maximum rent which any merchant can afford to pay for a site are the volume of sales and the markup. Both of these items, particularly the volume of sales, are functions of location, though in varying degrees. To be sure, other factors influence site bids, as for instance the number of competitive outlets in the trading area. However, the general convenience of the location for potential consumers and the relative convenience of the site as compared with the locations of competitors are factors of major importance.

The ability of a given retail type to exploit a certain site—and thus the site bid of the retailer—depends not only on the number of potential customers but also upon their buying habits and motives. It is a natural impulse of consumers to wish to reduce to a minimum the disutilities

of purchasing. These disutilities consist in time and money costs which must be added to the costs of the goods ultimately purchased. This general desire for efficiency in purchasing applies to all goods, but in varying degrees of intensity for various types of goods. The importance of minimizing the disutilities in buying is conditioned by a complex of values in the mind of the prospective consumer, such as the desire for comparison, the immediacy of the need, the economic importance of the article, the frequency of purchase, and patronage preferences. The significant evaluation of these factors is, of course, the collective evaluation, i.e., the sum of the individual evaluations of all the potential consumers. Where comparison and shopping is a habitual part of the buying process, the consumers demand that stores selling a similar type and grade of the commodity be grouped. Collectively, the consumers indicate the importance of such a geographical arrangement by the volume of their patronage, and in some cases, by a willingness to pay a price premium. For example, a tobacco shop in the middle of the block on a quiet side street will have a small volume of sales because most smokers habitually purchase cigarettes and cigars at points convenient to their places of occupation, or directly in the course of their travels in shopping, in the conduct of their business, in going to and from lunch, or to and from home. At a football or baseball game, consumers willingly pay a dime for a bag of peanuts which they could secure for a nickel by going across the street. The convenience and timeliness of the offer offsets the premium in price. A furniture store may do well on a quiet side street, for the typical family buys furniture infrequently, and on such special occasions is not averse to traveling to a relatively out-of-the-way spot. Ladies' wrist watches could not be marketed successfully at a ball park, since a purchase of this kind requires careful consideration, comparison, and considerable time.

A common division of retail goods on the basis of buying habits is that developed by Copeland, who classifies retail articles into three groups—shopping goods, specialty

goods, and convenience goods.¹ This is a useful classification, but for the purposes of this study, a somewhat more refined device for characterizing retail types with respect to the buying habits of their customers is required. The following aspects of the shopping or buying act have been selected as of especial significance as determinants in the orientation of the several types within the retail structure.

Purchaser. One of the major determinants of location for any retail type is the family purchasing agent who characteristically shops for the goods offered. The buying habits of men and women are substantially different. Women enjoy shopping; men dislike it, in general. Women are more patient and thorough in appraising the market. They organize their buying in shopping expeditions. They are more observant, more susceptible to display, and hence indulge more generally in impulse buying. Men are more hurried in their shopping, impatient, and prone to buy the first article which approaches their requirements or taste. Convenience is more important in their minds, and the opportunity for comparison is less important. While this characterization of the buying habits of men and women generally obtains, it is less true in the purchase of certain articles such as sporting goods and mechanical equipment, in which men have a particular interest. Shopping for a tennis racket may be a pleasure for the sportsman, and the mechanically inclined man enjoys analyzing and comparing the specifications of automobiles or radios.

For certain articles and on certain occasions, husband and wife shop together. Whether the buying technique is predominantly feminine or masculine depends upon the balance of power in the family, or upon the nature of the article. If it is mechanical, the husband may do the preliminary shopping alone, bringing in his wife for the final decision. Where selection is a matter of taste, the wife is the probable determiner of the buying technique.

¹Copeland, *Principles of Merchandising* (Chicago and New York: A. W. Shaw and Company, 1927), p. 13.

Postponability. It is evident that variations in the intensity of desire may affect the evaluation which the purchaser places on convenience. The forces which actuate individuals to consummate a purchase vary in intensity and import with individuals and with commodities. For the majority of articles purchased at retail, the fulfillment of desires is postponable, sometimes for hours, sometimes for weeks and months. On occasion, however, the impulse to buy is the instant reaction to the display of an article, and the purchase is effected without much consideration. Finally, the desire for some good may be impelling, such as the craving for tobacco, and demands prompt satisfaction.

Selection. The process through which the final selection of an article is made is a matter of importance in the location of the store which sells it. In some cases, the article is preselected, i.e., the purchaser determines in advance of the shopping trip the type, quality, and perhaps the brand which he intends to buy. Under such circumstances, convenience may be of minor importance. Again, many articles are purchased only after a market comparison. In such cases, the proximity of a number of competing stores is advantageous. In some cases, the purchase is made after inspecting the offerings of a single store, without shopping among several outlets. Impulse buying may be characterized by the absence of comparison, although for some articles, such as neckties, some comparison may precede purchase. Goods which are subject to this type of buying are best displayed in locations of maximum exposure to the view of potential customers.

Frequency. Frequency of purchase affects the importance of convenience. Other things being equal, the greater the frequency, the more important the convenience of location. It is difficult to establish class limits for degrees of frequency since the frequency with which various articles are characteristically purchased varies greatly. However, certain broad classifications might facilitate general differentiation. Frequent purchases are considered to be those

which are made daily or several times a week. Occasional purchases are those made several times a year, while infrequent purchases are considered to occur once a year or less frequently.

The more significant aspects of the buying act which have been described—the purchaser, postponability, the process of selection, and the frequency of purchase—are derived in large part from the qualities of the commodity. Bulk, weight, fragility, and perishability all are factors. Bulky and heavy objects are not purchased on a shopping expedition which is dependent upon public transportation unless the store provides delivery service. Perishable items, like flowers, are likely to be bought on the way home or ordered by telephone for delivery. The economic importance, or value, of the article may determine whether the purchase is made as an incidental part of a general shopping trip, or whether husband and wife together make a number of special shopping trips before arriving at the decision to buy. Value is also a factor in establishing the frequency of purchase. The character of the article and the nature of the considerations which prompt final selection determine in part which member of the family acts as purchasing agent. The larger mechanical articles are frequently purchased by the husband, while the fashion goods are usually purchased by the wife. The quality and price range of the goods offered point to the patronage group which comprises the potential consumers. The buying habits of working-class women in shopping for cheap house dresses are quite different from the behavior of wealthy ladies in search of tea gowns. Postponability is affected by the importance of fashion, and the rate of change in fashions.

Convenience-Desirability

The purpose of the foregoing analysis of buying behavior has been to demonstrate that there exist differences in the weights attached to the convenience of location in the purchasing of various articles by various consumer groups. In shopping for dresses, women place a high value on the

convenience of a close grouping of competing outlets which facilitates comparison. Thus a group of dress shops congregated in the central business area will do a greater gross dollar volume of business than the same number of shops scattered throughout the residential areas. This is true even though under the latter circumstance, every potential customer might find at least one shop more convenient than the downtown grouping of shops. On the other hand, in the purchase of groceries, convenience to the home is highly important because of the frequency of purchase, bulk of the articles, relative unimportance of comparison, and relative immediacy of the need. In the purchase of tobacco by men, the intensity of the desire for the article and the frequency of purchase place a premium on locations convenient to points of consumption in central areas or centers of employment for men. On the other hand, the high economic value of an automobile, and the infrequency of purchase, result in attaching much less importance to convenience in the location of auto salesrooms, but some greater importance to the proximity of competing outlets. Examples can be multiplied to illustrate the variance in the weight placed by a given consumer group on the disutilities in purchasing various articles. Each consumer group expresses the relative convenience-desirabilities for the various commodities in terms of number of purchases and price of the article. Thus on the site most convenient to the consumer group, the retail store offering the article rated first in convenience-desirability will thrive better than any other retail type.

The concept of relative convenience-desirability as between retail goods may be further clarified by considering the fact that convenience is one of the important services offered for sale by retail stores. The subjective value which consumers attach to that service, as with other commodities and services, varies among individuals and with respect to the retail articles offered at convenient locations. In spite of these individual variations, there appears to be sufficient of a common mind in consumer

groups to create a general hierarchy of convenience-desirabilities among retail types.²

The foregoing argument could be further refined, but there is danger of obscuring the central theme, i.e., that consumers finally determine retail location by expressing their evaluations of the convenience-desirabilities for the several articles and services in terms of volume of purchases and purchase price. Thus the differential productivity of various retail sites arises from the differences in the aggregate amount which various consumer groups are willing to pay for convenience in the purchase of various articles.

Analysis of Retail Structure in Terms of Buying Behavior

The next step in demonstrating the relationship of buying habits and retail structure is to analyze the use types which show tendencies toward geographical grouping. If these groupings can be explained in terms of buying habits, we will have support for the hypothesis just presented, and a basis for analysis of specific sites with respect to the appropriateness of various retail types.

Statistical description is not necessary to establish the fact that the most significant and most highly crystallized grouping is that of the women's shopping goods stores. In every central business district, the popular-price dress shops, women's shoe stores, hosiery and hat shops are found in close proximity to one another, and closely associated with department stores and variety stores. This district, at the focal point of the transportation system and most accessible to the greatest volume of purchasing power, is the core of the retail area.

In the larger cities there are likely to be two women's shopping areas—the popular-price district, as described, and a concentration of fashionable apparel shops, which

²Closely related to the idea of convenience-desirability is the concept of "situs," a quality of urban land imparted to each urban site through the "consensus of human choice" with respect to its relative appropriateness for optional utilizations. See Dorau and Hinman, *Urban Land Economics* (New York: Macmillan Company, 1928), p. 167.

may be situated several blocks away, and out of the congested central core. Let us analyze these demonstrable facts in terms of the aspects of the buying act which have been outlined. For each type of goods offered in the women's shopping goods grouping of stores, we find that the customers are women. While this is somewhat less true of variety stores, it is a fact that 90 to 95 per cent of variety sales are made to women. In each case, the fulfillment of the desire is postponable, and purchases are made only occasionally. Again, the purchase of items in a variety store is more frequent than the purchase of apparel. There are important differences in the method of selection. Dresses, shoes, and hats are purchased only after due comparison. For hosiery buying, preselection and inspection are more important, although comparison of price, color, and style characterize much of the buying. Purchases in variety stores are to a large extent matters of selecting an item from among the goods offered in one store. Shopping is indulged in to some extent, and impulse purchases are common.

The grouping of apparel shops in the popular-price range can be readily explained in terms of the buying characteristics which have just been discussed. To facilitate comparison of the offerings, the convenience of one shop to another is important to the customers. The common practice of indulging in shopping expeditions involving visits to a number of different types of outlets encourages the clustering of those shops which are most frequently the objectives of multiple-purchase forays. The most frequent combination involves department stores, apparel shops, and variety stores.

Variety stores are found in this combination not primarily because of the considerations of comparison which account for the grouping of apparel shops, but mainly because small purchases of goods typically offered in variety stores are normally incidents to a shopping expedition. In larger cities particularly, women rarely go downtown specifically to buy an item at a variety store. Rather, they accumulate their needs in various lines until it is

worth-while to make the trip in the interest of buying a number of items. It is a boon to the customer, therefore, to find the variety store conveniently located with respect to outlets of types frequently included among the objectives of a shopping trip. It is significant that the variety chains deal in articles of small bulk and weight, not difficult to stow away in a shopping bag, and to carry home with the other spoils of the afternoon.

To the extent to which purchases in variety stores are impulse purchases, variety outlets are parasitical, drawing customers from the traffic stream composed of individuals who may have primary missions in other stores. To a large extent, however, the visit to the variety store is as much a part of the shopping expedition as the visits to the other shops.

The separation of the women's high-class apparel stores from the popular-price districts can be explained in terms of the buying habits of the women of well-to-do families. For one thing, their mode of transportation differs from that typical of shoppers in the popular-price area. The upper classes, instead of using mass transport facilities, are accustomed to employing their private automobiles for shopping. Thus there is less reason in locating the high-price district at the exact focus of mass transportation routes. In fact, there is a distinct advantage in avoiding the congested center, and in locating in a situation most accessible by auto to the fashionable residential areas. Furthermore, the buying of items of small economic importance and of no style value is often delegated to the servants by this class of people. The shopping of the upper classes is less actuated by price considerations and more by considerations of quality, prestige, and fashion. Articles which the lower classes buy in variety stores and popular-price department stores are purchased by the well-to-do at high-grade department stores and specialty shops.

Fur stores might seem to be a logical companion for women's dress and shoe stores. It is true that some of the ready-to-wear stores, and all of the department stores feature furs at certain seasons. However, the data

analyzed in the previous chapter indicate that fur specialty stores are characteristically found on the fringes of the women's shopping area. Among the seven control types, fur stores were found to be most important in blocks containing furniture stores. This fact might be explained by the relatively high economic importance of furs, and the relative infrequency of purchase. A fur coat is not acquired as an incident to a shopping expedition. It is a matter requiring careful consideration and considerable comparison. The very importance and infrequency of the purchase results in attaching a lesser weight to convenience in the location of the outlet than in the case of other women's shopping goods.

The analysis of the blocks containing jewelry stores indicates that they are most likely to be located on the periphery of the women's shopping district. In the large cities, fashioned jewelry stores are often found in the vicinity of the high-grade women's wear district. The popular price jewelry stores and credit jewelers are found on the outskirts of the main women's area, or on side streets just off the main shopping street.

There are several reasons why customer preference rarely permits jewelers to compete successfully for the choice sites in the women's district. In the first place, as in the case of furs, many items offered by jewelers are of relatively high economic importance, and purchased but infrequently. Furthermore, a substantial proportion of the customers are men. Comparison is of importance, particularly to the women customers, but the relatively high price of the items and the postponability of the purchase warrant leisurely shopping which may involve visits to a number of widely separated shops over a period of days. The fact that there is little tendency for jewelry stores to seek one another's company suggests that jewelry buying does not involve intensive and immediate comparison among different outlets.

Furniture stores are characteristically on the outskirts of the central business district. There are a number of reasons for this. First, the very bulk of the stock requires

a large display and storage space, and constitutes a handicap in competing with other uses for choice sites. As in the case of other goods of relatively high unit value, purchases of furniture are infrequent. It is customary for man and wife to make a special occasion of furniture shopping. Convenience and accessibility, then, are of secondary importance. These characteristics also explain the fact that there is a great diversity in the uses found associated with furniture stores. Since shopping for furniture is not customarily an incident to a general shopping expedition, there is no incentive to locate near other particular types.

In the last chapter it was brought out that restaurants were by far the most important single use in blocks containing florists' shops. The explanation of this tendency for proximity is not likely to be found in the hypothesis that the buying of meals and the buying of flowers are associated acts. The explanation probably lies in the fact that both uses best serve their potential customers in similar locations. Downtown restaurants do their major business at noon, serving office and shop workers. They must be, therefore, convenient to the places of occupation of these people. Flowers are bought on the way home. They are perishable and cannot be purchased too far in advance of use. Consequently, florists seek to locate at points convenient to the flow of outgoing pedestrian traffic at the end of the day. Thus both restaurants and florists best serve when in locations of similar characteristics. Some florists, of course, are found at points convenient to the women's shopping area, and in special spots in the hotel district and theatre area, where they serve the peculiar needs of buyers frequenting the areas.

It is probable that the majority of theatre patrons make an advance selection of the show for which they buy seats. This is certainly true of the legitimate theatre, and probably generally true of the evening movie crowds, though there is some shopping around. The matinee movie crowd, composed mainly of women, may be more impulsive in selecting their hero for the afternoon, but it is likely that the majority make the decision to see Shirley Temple over

the evening paper the night before. For this group, the show is often a part of the shopping expedition. The convenience of the theatre to the shopping area encourages the combination of shopping and entertainment. However, the extent to which preselection is characteristic determines the importance of convenience. This principle explains the fact that legitimate theatres are frequently less conveniently located than the cinema shops.

Conclusions

The foregoing analysis of retail structure in its relation to consumer buying behavior has been designed to demonstrate that the retail structure assumes a predictable form because of variations among retail uses in the importance to consumers of convenience at various locations; that consumers, in the aggregate, express the relative convenience-desirabilities in the volume and value of their custom; and that the retail pattern, at least in its mature form, is an expression of the collective will of the patrons of the several retail outlets.

The differential productivities of retail sites, as in agricultural land, determine site rents, but in contrast to agricultural land, the "original and indestructible powers of the soil" are of no significance, while location is the prime determinant. Variations in location determine site rent because of the differences to consumers in the importance of the convenience of various retail outlets in different locations. It has been recognized by students of land utilization that there exists among retail use types a hierarchy of rent-paying abilities.³

Certain of the retail types appear to possess an inherent capacity to pay higher rents than other types. While such a hierarchy undoubtedly exists, previous discussions of it have failed to emphasize the true nature of the differential exploitive abilities which it reflects. Correctly defined, the

³Snyder and Roby, *Fundamentals in Real Estate* (New York and London: Harper and Brothers, 1927), p. 117; Niebuss, M. L., in an unpublished study of special assessment taxation in Detroit, Michigan; Ratcliff, *op. cit.* Cf. p. 15.

hierarchy is not one of retail uses alone, but of retail uses *on appropriate sites*. Thus, while in fact department stores pay higher rents than grocery stores, this situation obtains only when department stores are properly located, for were a department store situated in a neighborhood retail cluster it could pay no rent at all. It should be further stated that for each site there exists a hierarchy of uses based on their rent-paying ability on that site, and that there is a hierarchy of sites based on differential productivities under the appropriate uses.

This analysis of the facts and fundamentals of retail structure would be incomplete without some attempt to relate the conclusions to the specific problem of retail site selection. Site selection can never be an exact science. There are too many incommensurable factors which influence the appropriateness of a location for a particular use. But site analysis which recognizes the fundamental determinants of successful merchandising in a given location will forestall many misfit locations, and will aid property owners in securing tenants whose success as merchants means maximum rents and permanent, solvent renters. Thus, without attempting to develop a set of formulae for site selection, or to write site specifications for the several retail types, an outline of general procedure will be presented based upon the fundamental principles which have evolved from this study.

The basic steps in determining for what retail uses a given site is appropriate are first to identify the consumer groups to which the location is convenient and to determine the size of those groups, and second, to determine for those consumer groups the ranking of various retail articles and services in terms of convenience-desirability. The first step requires a traffic analysis, and the second step, a study of buying habits.

The most common method of securing information on potential consumers of goods to be offered at a particular location is the simple traffic count. This method involves the counting of pedestrian traffic moving past the site during a series of test periods on several days of the week. From

these data, estimates are made of the potential sales volume of a hypothetical retail outlet. It is now being recognized by site analysts that only carefully conducted qualitative analyses of traffic are productive of dependable estimates. Attempts are made to separate the traffic stream into its components, and to analyze these constituent elements with respect to point of origin, destination, age, sex, economic level, social characteristics, motives, state of mind, and, of course, the number of individuals. It is also of importance to analyze in like manner the adjacent working population or residents who might be drawn to the site for purchases of certain kinds. Having secured an adequate description of the predominating groups of potential customers, the second step in site analysis may be taken, i.e., the study of the buying habits of the several consumer groups, and a determination of their weightings of convenience-desirability with respect to individual retail items or services.

The merchant attempting to decide whether or not to lease a particular location need not make so comprehensive a study of the potential consumer groups as has just been outlined. The question which he has to answer is simply how much he can afford to pay for the location in light of its volume potentialities. Hence his study of buying habits may be restricted to the practices of the consumers in the purchase only of the goods which he intends to offer. Of course, it may be of more than academic interest to him that some other retail type would be warranted in outbidding him for the location. But if such a competitor fails to put in a bid, then the question is merely whether or not he can afford to meet the landlord's terms.

A knowledge of associative tendencies among retail types is of considerable aid in the site-selection process. Since these tendencies become more pronounced and of greater significance as the retail structure matures, this approach is most useful in the central business districts and in the older subcenters. Associative tendencies are a direct reflection of relative convenience-desirabilities of various retail types, and suggest which uses are likely to thrive in similar

or associated locations. The facts of geographical association of retail types permit the writing of general site specifications for the several retail types in terms of neighboring uses. The merchant can judge the appropriateness of a particular location for his store by analyzing the adjacent uses. The description of retail structure included in this study is probably too generalized to be more than suggestive in specific cases of site selection. Its use should be supplemented by an analysis of potential consumer groups and a study of their buying behavior.

CHAPTER 5

CURRENT SITE-SELECTION PRACTICE AMONG THE CHAINS

Retail chains are credited generally with the use of "scientific" methods of site selection. The fact is that only a few of the larger organizations apply quantitative analysis to the problem. The smaller chains, and a surprising proportion of the large national retail groups, depend on field inspection and the judgment of one or more of the officers. It would be difficult to prove whether statistical analysis or unadorned judgment has produced the better results, but it is likely that a combination of the two devices is the soundest approach to the problem.

In many chain organizations, site selection is considered in the nature of a merchandising function. Those persons charged with this duty are experts in the selling end of the business. In the smaller organizations, site analysis is only an occasional process, and is performed by the merchandising executives. The real estate departments of the larger chains exist primarily to perform the functions of negotiation with property owners, and of property management. In some instances, the real estate officer and his agents conduct the basic or preliminary site analysis, but the final decision on the appropriateness of a location is seldom made without the advice of an experienced merchandising expert.

Some chains periodically or continuously analyze the locations of existing units and study their operating experience in order to disclose changes in the factors affecting the quality of the site. Traffic counts are made at regular intervals. Any unusual change in the sales volume is appraised in the light of site factors. At times when it is determined that a poor choice of location has been made, or that the retail district is shifting, or that some influence has rerouted some important current of traffic, the site is abandoned and a new selection made.

Some chain executives deny the existence of a site-selection problem, one real estate officer stating that he could pick locations "with my eyes closed." While this statement may represent some small exaggeration, it is true that the site specifications of certain chains appear to simplify the problem. Certain of the variety and women's apparel shops will accept locations only when they are in the "hot spot," the "100 per cent block." In many retail districts, this area is readily identifiable. Thus, so long as no other section is to be considered, and so long as any one of the few sites in the 100 per cent block is acceptable, it is true that site selection need not be a complicated process. The same executive quoted above told a story of the founder of his company who in fifteen minutes selected a new location which has proven profitable over a long period. The problem loses some of its simplicity, of course, in those cities where the "100 per cent area" is not clearly definable, where it is shifting, or where there are two or more areas which are "hot spots." In suburban nucleations in various stages of maturation, it is often difficult to locate the magnetic poles. It must be admitted, however, that those chains which insist on "100 per cent locations" find the problems of negotiating satisfactory leases to be more troublesome than those of choosing locations.

The purpose of this section is to describe in a general way the site specifications and techniques of site analysis employed by leading chain organizations. This material will supplement the ecological material found in the main body of the monograph, and will describe the policies which are playing a large part in the formation and arrangement of the retail structure of our cities. The chains are among the primary determiners of retail organization and other retailers are prone to follow where they lead. The fact that the chains, who are skillful merchandisers, are likewise intelligent and thorough location analysts suggests a recognition of the close relationship between buying habits and the retail structure.

The science and art of retail site selection has advanced but slowly during the past few years. During the period

of chain store expansion, from 1920 to 1929, considerable attention was given by some chain organizations to the development of techniques of site analysis. In some cases, real estate departments were expanded, and the analysis of locations was performed by full-time staff members on field assignments. In other cases, district managers or other officers connected with the district organizations were charged with this duty. Another method involved the services of professional real estate experts employed on a fee basis, in some cases retained by the chain, and in other cases acting as brokers for the property owners. Many of the larger organizations, and those which were expanding rapidly, followed a policy of actively seeking new locations, while other chains selected promising new locations from among those submitted by brokers and property owners.

The disaster which overtook a large number of retail chains after 1930 was to a large degree the result of overexpansion and the burden of high rents undertaken during the period when the chains were competing with one another for choice sites. Even those organizations with the most refined methods of site selection failed to exercise the proper restraint in making long-term lease commitments calling for rapid step-ups in rent. The general assumption was that the volume of business would expand indefinitely.

Present chain practice is marked with caution. Expansion is slow. Proposed sites are accepted only when of obvious value and undoubted profitability. The large real estate departments have shrunk. Pioneering into outlying areas which are not yet established is rarely indulged in, and percentage leases for relatively short terms are in general use.

Procedure. The steps in the site-selection process are fundamentally similar for all chain organizations. The first requirement is the selection of the city in which the new unit is to be installed. This process will not be discussed here in detail since this study is concerned primarily

with the later steps of site analysis. It is sufficient to say that cities are selected on the basis of their economic characteristics, the character of the populace and their buying habits, and the strength of existing competition.

It is customary for chains to follow consistent policies with respect to the parts of the retail structure in which units are established. Some companies accept only locations in the women's shopping district of the central business area. Other groups will consider any central location, or will also consider sites in outlying string streets and nucleations. Some chains locate only in the suburbs. In conformity to the established policy, therefore, the number of potentially acceptable locations is limited to the generally appropriate parts of the retail structure of the city.

The next step is to test the acceptable areas on the basis of whether or not another store of the particular type can be supported. In many cases, districts are eliminated from further consideration when it is apparent that it is already adequately served by units of the same type. Frequently, this decision requires a careful analysis of potential volume as outlined in the following paragraphs.

The evaluation of a particular site is based upon an estimate of the volume of business which can be done there. A budget for the proposed store is carefully worked out, and a maximum rental is established. The final steps are the negotiation of a lease on the most favorable terms within the limits established by the estimate of volume and the budget. In some cases, several sites may be under consideration, and estimates are worked out for each. In the majority of circumstances, however, only one site is under scrutiny, since it is not often that at any one time more than one or two leases are expiring in a particular district. This limitation did not exist, of course, during the recent depression, when in most retail districts a wide choice of locations was available to the enterprising retailer who was expanding or relocating.

The estimating of potential volume in a location, as practiced by the more progressive chain organizations, is

based upon a quantitative and qualitative analysis of pedestrian traffic often supplemented by estimates of the volume of sales of existing competitors in the vicinity of the site. The sales volume of competitors can be closely approximated, according to chain store officials, by the method of counting the number of persons entering the store during specified periods. The estimate of volume from these data requires facts on the proportion of actual to potential customers entering the store, and the average-size purchase. These facts may be determined from the actual experience of the chain making the analysis.

Another method of estimating sales volume in competitors' outlets is by counting the number of clerks. In many lines, the annual volume of expected sales per clerk is a generally accepted figure, and provides a basis for a dependable estimate of total annual store volume. A third method is based upon the number of feet of counter in the store.

The analysis of pedestrian traffic varies in practice from a simple count of women passing by the site at certain intervals during the day to a detailed qualitative analysis of the passers-by and the origin and destination of the component currents in the traffic stream. In some cases, this has been done by "shadowing" women shoppers from their homes, downtown, and home again.

The obvious objective of traffic analysis is to determine the number of potential customers who pass the site or who are in the vicinity and might be attracted to a store located there. Traffic counts taken at the site are of greatest value for articles subject to a large measure of impulse purchasing. For shopping goods, the count at various points in the vicinity is of greatest significance. For specialties, traffic counts have less meaning than in the other cases.

The first step in traffic analysis is to determine whom to count. Shopping outlets such as women's apparel stores have only to count adult women. Sometimes the count is of women carrying bundles. Cigar stores are interested in both men and women pedestrians, although men are

by far the more important group. Men's haberdashery stores count both men and women, since almost half of their sales are to women.

Having determined which group to count, the next step is to decide at what time of day, and on what days of the week, the most significant counts may be made. For each type of goods, certain hours of the day mark the periods of the largest volume of sales. For women's apparel, the afternoon shopping crowds assay the highest. For articles purchased by men, such as hats, shoes, or sporting goods, the count of men at noon and after working hours is most indicative. The best practice calls for counts at frequent intervals and for short periods through the entire day. Greatest weight is given the counts for the most significant periods.

In each city, certain days of the week are, by local custom, the more important shopping days, particularly for women's shopping goods. The Scripps-Howard newspaper organization has recently completed an analysis of buying preferences of housewives in sixteen cities.¹ Saturday proved to be the most generally favored day for downtown shopping, leading in preference in thirteen of the cities. Of the remaining days of the week, Monday, Wednesday, and Friday were the important shopping days, with wide variations in importance between the cities analyzed. Counts are taken on both the important and less important shopping days, with more weight given to the results on the best days.

As an aid in the qualitative analysis of pedestrian traffic, some organizations study the traffic stream in the district by counts at various points throughout the area and at transportation termini. This procedure enables the analyst to chart the currents of traffic in the district with respect to origin and destination, and to appraise more accurately the traffic passing any given site at various times of day.

Involved procedures of site analysis and estimation of potential sales volumes for prospective locations are of

¹Quoted in *Advertising and Selling*, August, 1938, Vol. 13, No. 9, p. 25.

little avail if a suitable lease does not eventuate for one of the appropriate sites. For this reason, some chain real estate officers claim that site selection is 90 per cent negotiation. The site analysis will reveal the maximum rent which can be supported by a store in a particular location; but if the property owner cannot be induced to accept this figure or a lower one, all the scientific study is in vain. In some cases, as between two locations, that which will produce the lower sales volume will be chosen because of a rental sufficiently lower to produce a greater net return.

All chains make some attempt to predict the future of the retail district, and to foresee any shifts which may affect the traffic stream and the volume of sales at the site under consideration. In some cases, it is apparent that a district is well "anchored." The leading stores are under long leases with many years to run, or own their own locations. The transportation system is permanently fixed, and no major changes in it are probable. The better residential areas show no signs of shifting.

Chains avoid districts which reveal any signs of decline. Where shifts in the retail structure are in progress, and can be identified, an attempt is made to locate the unit advantageously in the path of the movement. In some cases, pioneering is done in growing outlying nucleations, and stores are installed in anticipation of a substantial development, even though it is known to be an unprofitable site at the time. Some organizations made a practice of leasing locations in growing areas well in advance of intended use. Such sites are subleased until such time as it is profitable to install a store.

During the period of rapid chain store expansion before 1930, the typical lease was written for a term of from ten to thirty-five years, with provisions for increases in rent at intervals of two, three, or five years. In some cases, percentage leases² were used in pioneering locations.

²A percentage lease provides for a determination of the rent payable on the basis of the gross volume of sales by the tenant.

The exigencies of the depression brought the percentage lease into wide use. It was impressed upon chain executives that long-term leases with predetermined rentals had the effect of placing the retail organization into the real estate business, and involved speculation in land. It was recognized that this function properly belonged to the property owner, and that the chain should logically depend on its skill in merchandising for its profit; that the value of a site as a location for a retail store depended on both the ecological characteristics of the location and the skill of the merchandiser; and finally, that it is logical for the landowner to profit on the basis of the site characteristics and changes therein, and for the merchant to profit in accordance with his skill in merchandising. The percentage lease was widely accepted as the best device for effecting the separation of site product into the two components, and their assignment to the appropriate claimant.

In negotiating new leases, the major chain organizations are at present securing percentage leases wherever possible, some chains refusing to consider all other lease forms. It is possible that this well-nigh universal policy is a reflection of the current state of the market rather than a rationalization of the relationships of landlord and tenant. Should the time arrive when chains are again in active competition for locations, it is quite possible that there will be a return to the lease forms which offer more apparent security to the property owner.

There are a number of site characteristics which are regarded as detrimental to all retail outlets. For instance, proximity to undertaking establishments, or land uses which create objectionable odors or noises are avoided. Blocks which are unusually short, or where the shopping continuity is broken by banks, churches, or institutions, are not desirable. Buildings which are dark at night are not congenial neighbors for some types of outlets. Level terrain is preferred to a hillside. Some chains prefer the shady side of the street in summer, or the sunny side in winter. Undue traffic congestion may be detrimental if

it interferes with the shopping function. Dilapidated or unsightly structures are avoided as well as vacant store-rooms. Where the two sides of the street are on different levels, the upper side is considered the better.

As an illustration of site specifications which have been established in a general way, there follow summaries of the site-selection practice of retail chains in a number of fields. These summaries are not inclusive, nor are all retail types considered.

Variety. The great variety chains in America have established site specifications which are both simple and rigid. They insist on sites which are in the very center of women's shopping zones, where there is the maximum traffic count of women shoppers. In the larger cities, in subcenters which have matured to a point where a women's shopping zone exists, stores are located in the "hot spots" of such outlying nucleations. Generally, however, the variety store is a central business district use.

Although there are some exceptions, variety outlets are located in the popular-price shopping zone, in proximity to apparel shops, women's shoe stores, hat and hosiery shops, and department stores. The presence of competing variety outlets is not an important disadvantage in the central retail area. In fact, since women shop among the variety stores for many articles, it is often an advantage. However, in outlying locations, a careful study of the zone of patronage may be required to determine whether there is sufficient business available to support an additional variety outlet.

The variety chain is reluctant to pioneer, and insists on sites in retail areas which are well established and provided with the essential complement of women's shopping uses.

Corner locations are considered more desirable than inside spots, but the advantage is not sufficient to warrant a substantial rental premium.

Women's dresses. The chains in the field of dresses are mainly in the popular-price field. They are interested only

in locations in the shopping zone for popular-price lines. Sites close to department stores, women's shoe stores, hat and hosiery shops, and variety chains are specified. Locations in outlying areas are considered only when the nucleations are well matured, and contain other shops dealing in apparel, or variety stores.

Drugs. The specifications for drug store sites are perhaps more flexible than for almost any other retail use. The major consideration is convenience to large numbers of people. Consequently, sites near buildings, or near areas which attract potential customers, are in demand. In the central business district, traffic streams attractive to drug stores are found in the shopping area, in the office-building district, in the vicinity of hotels, theatres, transportation terminals, and car and bus stops.

In the outlying shopping areas, favorable locations are found near the major intersections and among the shopping-goods outlets in the higher-grade nucleations. Neighborhood locations are acceptable when at a convenient spot in a well-populated area, or in the midst of an apartment house district. Parking facilities are of some importance in neighborhood locations.

Corner locations for drug stores are not essential in districts of heavy pedestrian traffic, but are highly desirable under any conditions. The advantage lies not primarily in the added window display space, but in the fact that the corners mark the point of convergence of two traffic streams, that they are frequently transfer points or stops for car and bus lines, that they are meeting points, and that stores on corner locations are havens of warmth and comfort on wintry days. The conspicuousness of corner stores is advantageous, particularly in effecting institutional advertising for chains. Finally, the long-time association between drug stores and corner locations—witness the phrase “corner drug store”—has led the public to expect to find drug outlets on corner sites.

In general, competing drug outlets are not welcomed. However, the large drug chains, bolstered with institutional

advertising, or pursuing a cut-rate policy, can often overcome the handicap of a near-by competitor. Further, districts favored with heavy pedestrian traffic can often support a number of drug stores in close proximity. But competition is avoided when possible.

Restaurants. Restaurants and lunchrooms vary widely in the quality of the food and service offered, and in the price level of their menus. In general, they try to locate conveniently at points where the economic group whom they serve is located at meal times. One large national restaurant chain serving quality food at moderate prices seeks the proximity of office buildings, theatres, hotels, railway depots, colleges, apartment areas, and shopping districts. The downtown area is spotted with eating places ranging from the drug store lunch counter to the hotel roof garden. Some are located to serve the shopping crowds at midday; others are convenient to the office buildings. In the theatre district, the higher-priced restaurants are situated to glean patronage from pleasure-bound crowds. In the wholesale and light industrial area are the cheaper spots—the hot-dog stands, the foreign cafes, the “greasy-spoon” joints.

Selection of restaurant sites is based on analysis of pedestrian traffic and neighboring occupancies to provide an estimate of potential customers at meal times and at off-peak hours. Competition in the same price range is avoided. In the financial district in New York, it has proved profitable to operate certain restaurants only at noon.

Haberdashery. Included in this category are outlets dealing in men's accessories, such as shirt shops and hat shops. It has been the tendency for these outlets to seek sites of predominantly male pedestrian traffic outside of women's shopping zone, and on corners. Men's shoe stores, men's clothing stores, sporting goods, restaurants, and cigar stores, are considered good neighbors. Frequently favorable locations are found in commercial hotel districts, and office building areas.

The growing tendency for men's wear to be purchased by women has increased the importance to haberdashery stores of proximity to women's zones. One large shirt distributor reports that 50 per cent of sales are made to women. For this reason, this organization seeks locations where there is an even mixture of men and women pedestrians. Another chain in this field is reported to prefer sites in the midst of the women's shopping zone.

Shoes. Shoe stores differ in character and hence in site specifications. Women's shoe outlets require sites within the women's shopping zone, and seek the proximity of apparel shops, department stores, and variety chains.

Outlets dealing exclusively in men's shoes seek locations on the outskirts of the shopping zone, in the vicinity of men's furnishings stores, haberdasheries, sporting goods shops, or in office building areas where the male pedestrian count is high.

Family shoe chains, which deal in popular-priced footwear, prefer the proximity of the shopping zone since two-thirds of their customers are women. However, they normally seek sites at the edge of the zone since they cannot compete successfully with the women's apparel shops for the choicer locations.

Popular-price lines frequently find suitable locations in outlying nucleations which are well developed. The higher-priced nationally advertised lines generally seek only central locations. In all lines, proximity to competitors is not avoided. Corner locations are desirable but not at more than moderate rent differentials.

Groceries. Like the drug store, the grocery store is appropriate in a wide variety of sites. The great food chains locate their units at sites varying from the isolated neighborhood location to the central business district spot, although there are few instances of this latter location. In the main, convenience to residential districts is the prime consideration. Since but a relatively small zone of patronage is required for the neighborhood unit, locations on major streets in residential districts are sought, pro-

vided competitors' stores are not too numerous. Locations in nucleations even in their early stages of development are appropriate. On string streets, spots near important car and bus stops, or wherever well-populated residential districts are adjacent, are favorable sites. For the smaller outlets, dependence is placed on potential customers within walking distance.

Recently greater emphasis has been placed on larger units and the super-market type of outlet. The result has been to close many of the smaller stores, and to seek locations on major traffic arteries which are central to a larger zone of patronage. Parking facilities are important, and in many cases, are provided as part of the service. Traffic congestion is avoided with the result that suburban locations are sought. In smaller towns, super-markets can often be located centrally, though outside of the central business district, and thus draw from the entire community.

Where there exists sufficient business to support more than one grocery, the competing outlets tend to seek each other's company. Some chains adopt a policy of installing stores next to successful competing units.

Corner locations are desirable, but not necessary. In neighborhood locations they are sought, but in nucleations, it is not ordinarily possible for groceries to compete with a number of other uses of higher rent-paying ability in corner locations.

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