Economic Relationships of Parking to Business in Seattle Metropolitan Area

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The association of business trends in Seattle with changes in parking, traffic and mass transportation conditions is presented in this study. Trends in retail activity are indicated by front-footage information from land-use surveys, by regular and special tabulations from the U. S. Censuses of Business and by the Federal Reserve Board Index. Property value changes are revealed from special studies of assessed valuation and tax levies. Building permits show the proportion of office building and retail store construction in the central business district.

Traffic and parking conditions in Seattle's downtown area were derived from special breakdowns of the comprehensive origin-and-destination and parking surveys of 1947. Much of the parking information was brought up to date and other field surveys have accumulated data with regard to two important suburban shopping centers, the university district and Northgate. The use of mass transportation as a means of relieving parking and traffic congestion is also considered.

●SEATTLE, the nineteenth city in size in the United States had a population of 467,591 in 1950; the population of the metropolitan area, King County, was 733,000. Per-capita income in the area is higher than the national average. While the national per-capita income was $1,387 in 1948, per-capita income in King County was $1,795.[1]

The city is situated on a neck of land between Puget Sound and Lake Washington. The terrain in much of the city is very hilly. Along the waterfront the hills have been graded down to give a comparatively level area for the business district. In addition to the hills, another traffic problem is created by the rather limited number of crossings provided over the Lake Washington Ship Canal connecting Lake Washington with Puget Sound.

The city is a leading commercial, industrial, and financial center of the Pacific Northwest. It is an important distribution center for lumber, paper and pulp, wheat flour, canned salmon, fish, apples and pears, copper, mutton, hides, and furs. Leading products manufactured in Seattle include: food and kindred products, textile mill products, apparel and other finished product from fabrics, furniture and finished lumber products, lumber and timber basic products, paper and allied products, chemicals, iron and steel machinery, transportation equipment, aircraft and parts, ship building and repairing.

[1] ROBINSON, MARILYN DRUCK, *Washington State Statistical Abstract*, 1952, University of Washington Press, Seattle, p. 126.

SUITABILITY OF SEATTLE FOR STUDY

The Seattle metropolitan region provides a suitable area in which to study the effects of parking on business trends. The city and its surrounding trading area have experienced rapid population growth during the last decade. In addition, the geography of the community has been conducive to the development of important suburban shopping centers.

While the population of the city of Seattle has increased from 368,302 in 1940 to 467,591 in 1950, or 27.0 percent, vehicle registrations have increased from 125,000 in 1940 to 196,000 in 1950, or 56.8 percent. During the same period of time the population of the metropolitan area, King County, increased from 505,000 to 733,000, or 45.2 percent, while vehicle registrations grew from 162,000 to 291,000, or 67.9 percent.[2]

The geography of the area tends to intensify traffic congestion in the central business district. The majority of residents live north of the downtown area while the greatest percentage of industry lies south of the central business district. As indicated by Figure 1, Seattle has an hourglass shape, tending to funnel heavy north and south traffic through the downtown area.

[2] See Table 19.

The rapid increase in vehicles in the area since 1946 has intensified traffic congestion in the central business district and increased the demand for parking facilities, particularly in the shopping core of the downtown area. To relieve traffic congestion caused by the large percentage of through traffic in the central business district, the city is completing two bypasses. Without

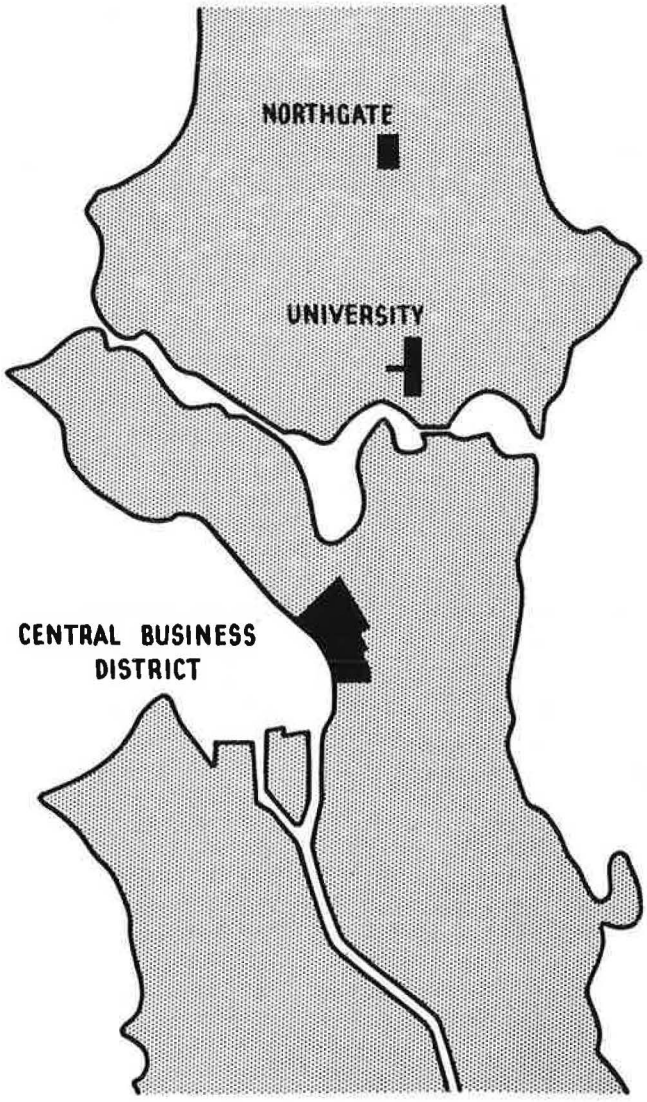

Figure 1. Location of districts studied.

these bypasses most of the heavy north and south traffic must pass through five streets.

With increasing congestion in the downtown area and rapid population increases in outlying areas, suburban shopping districts have expanded rapidly. The most important development has been the creation of the Northgate Shopping Center. This center is one of the largest planned shopping centers in operation. The development of Northgate and the expansion of other suburban shopping areas have raised questions about the relative future of the central business district in Seattle.

DISTRICTS TO BE STUDIED

In considering the economic effects of parking on business in Seattle, attention will be focused on the central business district and two large suburban shopping centers, the university district and Northgate. A brief description follows. For the location of these districts see Figure 1.

Central Business District

The city of Seattle is often described as possessing an hourglass figure. The central business district lies at the narrow throat. The narrowness is further confined by the harbor on the west and the steep topography on the east (see Fig. 2). At the south, the central business district stops at Jackson Street. At this south boundary are found railroad terminals and a warehousing district. Although groups disagree as to the exact location of the northern boundary, Lenora Street will be designated for purposes of this study. This boundary was used in several studies in recent years dealing directly or indirectly with downtown parking. Growth of the central business district can take place only in a northerly direction where level land exists in an area known as "The Re-Grade." Level land here was created by cutting down a hill.

There are several districts within the downtown area as designated above. The wholesale district lies at the south end of the central business district between Jackson Street, the railroad yards, and Yesler Way. This is an area of old loft buildings. The topography is flat here.

The financial district is next north. This district is largely between First Avenue and Third Avenue, Yesler Way, and University Street. At present this area contains many major office buildings. Stores found in this area are mostly lunchrooms, stationery and office supply stores, and service-type stores which cannot command premium retail locations.

The commission district lies adjacent to the waterfront along Alaskan Way and Western Avenue between Madison and Pike Streets.

The retail shopping district downtown is widely spread. It extends from University Street north to Virginia Street. The heart of the district is between Union and Pine streets and Third and Fifth avenues. The peak retail corner, as measured by pedestrian traffic, is Fourth Avenue and Pike Street. The two

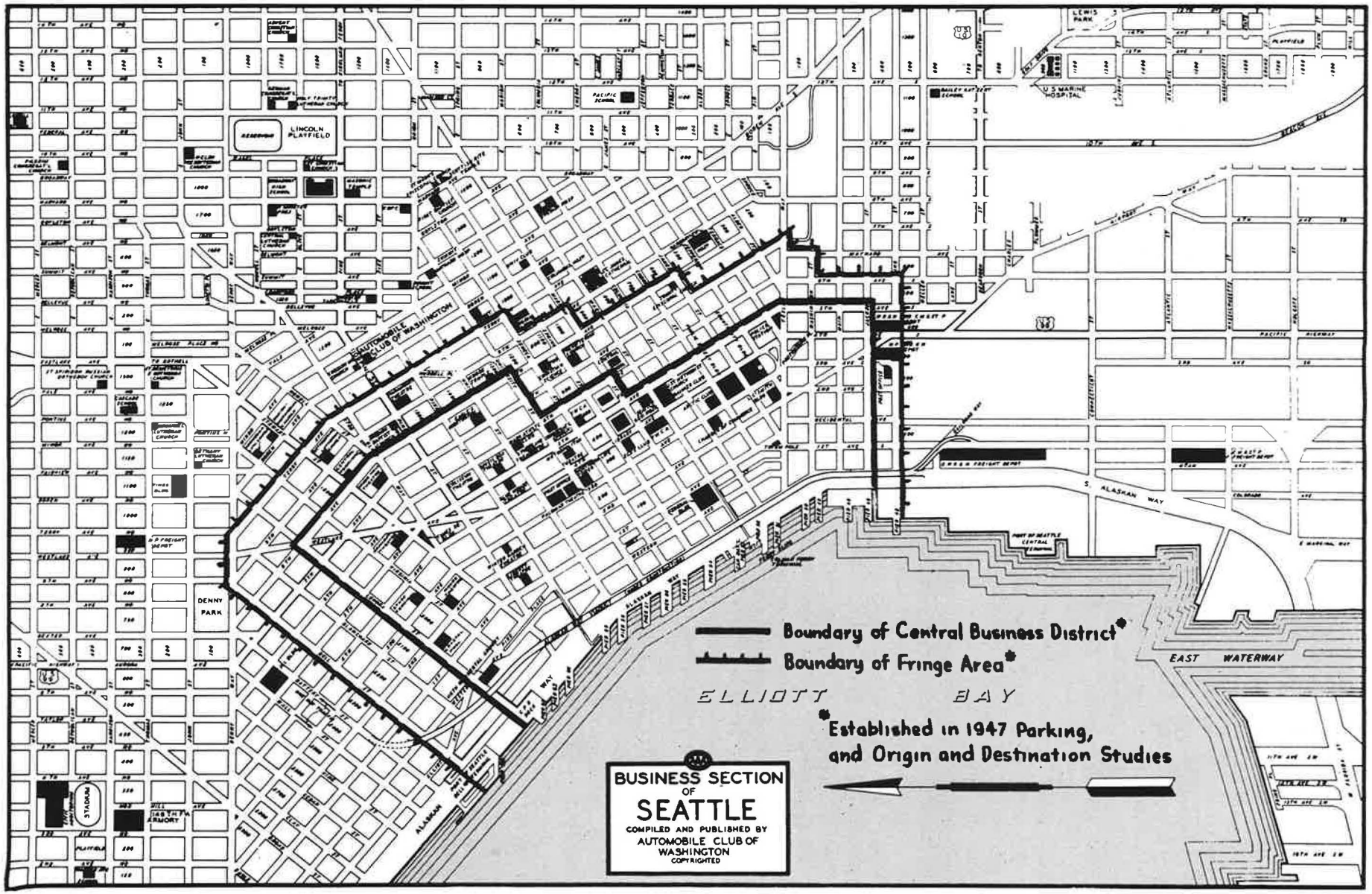

Figure 2. Boundaries of central business district and fringe area.

largest department stores, Frederick and Nelson and the Bon Marche, are located on Pine Street between Fifth and Sixth avenues and between Third and Fourth avenues, respectively. Other large downtown department stores are MacDougall-Southwick and J. C. Penney at Second Avenue and Pike Street and Rhodes at Second Avenue and Union Street. The leading women's specialty shops tend to be located on three blocks of Fifth Avenue between Pine and University.

The central business district contains the preponderance of shopping-goods stores in the city: department stores, apparel, jewelry, specialty shops, and variety stores. In addition, it contains the majority of banks, theaters, and office buildings.

Because of increased traffic congestion and high rent values, decentralization has taken place in many fields. Many professional offices have been moved particularly to fringe areas, where room to expand exists and more adequate parking can be made available at a reasonable cost. Since 1946, most office-building construction has taken place outside the central business district to take advantage of lower land values and an opportunity to provide adequate parking at less cost. Downtown retailers have faced increasing competition from retailers in outlying districts. Many new suburban banks and theaters have been erected in the past few years.

The central business district is the hub of the public transportation system of the city. However, in common with other cities, the number of transit riders has fallen sharply since 1945, in spite of the population increase enjoyed by the area. Between 1945 and 1951, the number of transit revenue passengers carried dropped from 131 million to 78 million.[3]

A parking survey made in 1947 in the central business district indicated a total of 15,855 parking spaces in the area. Of this number, 3,820 were curb parking spaces, 6,135 lot spaces, and 5,900 garage spaces. A similar survey by the city's traffic engineer in the summer of 1952 indicates a decline in the amount of parking available in the same area. At present there are 2,406 curb parking spaces, 4,699 lot spaces, and 6,734 garage spaces for a total of 13,839.[4] Increased restriction on curb parking has reduced the amount of curb space available. Some parking lots have been withdrawn and high construction costs, combined with rising land values, has deterred the building of new garages or multi-level facilities. Since the war the potential threat of municipally subsidized parking facilities has also retarded private construction in the downtown area. Now that this possibility has been lessened, plans are being made to construct at least three major new facilities.

[3] See Table 39.
[4] See Table 30.

University District

The university district is a large suburban shopping center. It was developed before the automobile became such an important mode of transportation and, as a result, has parking problems second only to those of the central business district. In order to relieve parking congestion, the merchants and professional men have coöperatively developed a parking lot holding 120 automobiles on which they validate parking tickets. In addition, several retailers and service organizations have developed individual parking lots for their patrons. In order to increase the turnover of curb parkers, the University Commercial Club has prevailed upon the city to increase the number of parking meters in the area.

The stores in the district provide customers with most types of merchandise that can be found in the central business district. Retailers in the area include grocery, drugs, hardware, variety, furniture and home furnishings, appliance, automotive, shoe, apparel, dry goods, jewelry and gift, and book stores. The district lacks a large department store at present, although a small Penney's store is planning to expand within the next year.

Many professional men have offices in the university district. In addition, there are four banks, three theaters, and numerous other service establishments.

In addition to catering to students attending the University of Washington, the district is patronized heavily by residents of northeast Seattle and draws some trade from more distant residential areas. Competition from other suburban shopping centers has been intensified by the completion of Northgate 3 mi. north of the university district. Figure 9 shows the pulling power of the major suburban shopping centers in Seattle.

Although several northeast transit lines go through the university district, it is difficult to secure convenient public transportation from most suburban areas to the district. A recent survey made by the author in northeast Seattle indicated that about 65 percent of the shoppers used automobiles to reach the university district, 29 percent public transportation, and 6 percent walked.

Northgate

The Northgate shopping center is one of the largest planned shopping centers in operation at the present

time. Since it is dependent almost completely upon automobile shoppers, it provides an opportunity to study the operation of a center where maximum parking provisions have been made for the shopper.

The Northgate shopping center began operation in April of 1950 with the opening of the Bon Marche Department Store. Construction was completed in April 1952, and almost complete occupancy has now been achieved. The completed center provides an operating floor area of about 470,000 sq. ft., and an improved parking area of 1,088,000 sq. ft. Main parking lots accommodate 2,710 cars with an employees' lot holding an additional 328 cars. Other reserve parking areas are being hard-surfaced. As the area was recently annexed to the city and is not reached by Seattle Transit, public transportation facilities are limited at the present. A study made by the author in 1951 indicated that 95 percent of the Northgate shoppers came by automobile on their last trip.

In addition to two department stores, Northgate provides the shopper with nearly every kind of retail store and service available in the central business district. Seventy-eight retail establishments provide at least two competing stores in nearly every category. In order to offer complete facilities, a medical center has been included providing space for professional offices and a small hospital. A large theater, a bank, and a variety of service establishments round out the development.

As indicated in Figure 9, the majority of regular shoppers at Northgate reside in the area north of the Lake Washington Ship Canal, but many customers live in areas which are closer to the central business district than to Northgate.

SCOPE OF STUDY

The main purpose of this study is to explore the impact of parking on business trends in the Seattle metropolitan area. Although the influence of parking on the central business district is of greatest concern, the impact of parking facilities on suburban centers, such as the university district and Northgate is also important.

The first part of this study presents background material on Seattle and the three districts studied: central business district, university district, and Northgate.

The second section considers business trends in the metropolitan area. In particular, trends in number of stores and relative sales in the central business district and suburban shopping centers are analyzed. Information on changes in property values in the metropolitan area, amount of new commercial construction in the central business district, as well as in suburban areas, and other business trends are considered.

The third section presents current information on traffic and parking conditions in the downtown area so that data in the 1947 Seattle Parking Study could be brought up to date. Studies of the availability and use of parking facilities in the university and Northgate districts are considered, as well.

Since the use of mass transportation has important repercussions on the parking problem, data on the relative use of mass transportation and suggestions for increasing the use of public transportation are discussed in the fourth section of this study.

As parking is only one factor influencing business trends, the final section deals with suggested additional research needed. On the basis of a pilot study analyzed in that part of this report, a comprehensive attitude study is recommended. In addition, more comprehensive research regarding requirements for new shopping centers and patrons' parking habits at existing centers is suggested.

METHODOLOGY EMPLOYED IN SURVEY

Many secondary sources of information were used in conducting the research for this report. Among the general sources of information on the parking problem are publications of the American Automobile Association, Automobile Manufacturers Association, Highway Research Board, National Retail Dry Goods Association, Urban Land Institute, and the U. S. Chamber of Commerce. Locally, information was secured from the Washington State Department of Highways, Seattle Chamber of Commerce, Building Owners and Managers Association and Automobile Club, Northgate Company, and Larry Smith & Company. The reports and records of the following local governmental agencies were very valuable: the Building Department, Planning Commission, Traffic Engineering, and Transit System of the City of Seattle and the Assessor's Office, Planning Commission, and Treasurer's Office of King County. Of special value was the report of the Urban Land Institute made to the Mayor's Committee on Off-Street Parking and Relief of Traffic Congestion.

Primary sources of data were explored to bring additional light on the economic effects of parking on business in the Seattle area. To secure information on trends in retail sales in Seattle, special tabulations were received from the Bureau of the Census. Data on property valuation trends were obtained from special tabulations of records in various city and county de-

partments, as well as interviews with some of the leading property-management firms. Information on the availability and use of parking facilities in the various districts required field work in addition to secondary data available. Attitudes of retailers toward the parking problem were secured by interviews.

Business Trends in Metropolitan Seattle

This section of the report analyzes business trends in the Seattle metropolitan area, particularly with reference to the relative importance of the central business district as compared with the leading suburban areas. The first subsection analyzes retail trends within the area as indicated by front footage devoted to retail stores, by special tabulations of the 1939 and 1948 Censuses of Business, as well as by data from special studies of customer preference for major shopping areas.

Another measure of the relative position of the central business district compared with leading suburban areas is change in property valuation. The next subsection analyzes changes in property values as reflected by trends in assessed property valuation.

Other data of value in appraising the position of the central business district in the metropolitan area are new construction of retail stores and office buildings and changes in office building occupancy. This information appears in the third subsection.

It should be pointed out that changes in the economic position of the central business district in the Seattle metropolitan area may be heavily influenced by other factors in addition to parking and traffic congestion. Among these may be population increases in suburban areas, high land values in the central business district, evening shopping in suburban centers, lack of adequate public transportation from downtown to new suburban areas, and changes in the efficiency of retailers. The author feels that a comprehensive attitude study would be desirable to measure the relative importance of various factors on consumer's shopping preferences in the Seattle area.

TABLE 1

FRONT FOOTAGE[a] OF SELECTED TYPES OF RETAIL ESTABLISHMENTS IN DOWNTOWN AND SUBURBAN SEATTLE, 1909 AND 1938

Type of Business	1909 Footage			1938 Footage			1909 %		1938 %	
	Downtown	Suburban	Total	Downtown	Suburban	Total	Downtown	Suburban	Downtown	Suburban
Total[b]	36,746	25,231	61,977	126,691	215,014	341,705	59.3	40.7	37.1	62.9
Shoe stores	516	103	619	1,243	186	1,429	83.4	16.6	87.0	13.0
Clothing	1,813	154	1,967	5,002	1,009	6,011	92.2	7.8	83.2	16.8
Jewelry	839	135	974	1,139	429	1,568	86.1	13.9	72.6	27.4
Dry goods	1,663	830	2,493	3,694	1,577	5,271	66.7	33.3	70.0	30.0
Furs	139	60	199	448	218	666	69.8	30.2	67.3	32.7
Sporting goods	116	0	116	536	260	796	100.0	0.0	67.3	32.7
Restaurants	2,544	1,336	3,880	9,591	7,802	17,393	65.6	34.4	55.1	44.9
Furniture	1,597	557	2,154	2,303	2,888	5,191	74.1	25.9	44.4	55.6
Hardware	411	832	1,243	1,260	2,309	3,569	33.1	66.9	35.3	64.7
Florists	103	42	145	1,060	2,041	3,101	71.0	29.0	34.2	65.8
Drug	946	1,423	2,369	2,296	6,024	8,320	39.9	60.1	27.6	72.4
Meat market	628	2,010	2,638	874	2,424	3,298	23.8	76.2	26.5	73.5
Bakery-retail	169	605	774	608	3,099	3,707	21.8	78.2	16.4	83.6
Grocery	2,432	6,810	9,242	5,763	34,934	40,697	26.3	73.7	14.2	85.8

[a] City limits of Seattle in 1909 included nearly all areas within 1938 boundaries.
[b] Excludes gasoline stations in 1938; all types of business not indicated.
SOURCE: Report on Land Use Zoning Survey, City of Seattle, June, 1938.

RETAIL SALES TRENDS

Front Footage of Retail Stores in Central Business District and Other Districts

Early figures on sales trends within the city of Seattle or the metropolitan area are not available. However, a comparison of front footage of retail business establishments within Seattle in 1909 and 1938 is of interest. Since gasoline stations were not included in the 1909 study and this type of business uses such a large tract of land, they are excluded from the 1938 totals. The adjusted figures, appearing in Table 1, indicate that while the total retail front footage increased 244.8 percent in the central business district, it increased 752.2 percent in all suburban areas. Stated in different terms, in 1909 the central business district contained 59.3 percent of the total front footage devoted to retail stores in Seattle, while in 1938 it contained 37.1 percent. It should be noted that a study of

this nature somewhat understates the relative importance of the downtown area, as it does not indicate multiple floor space.

Of greater significance are comparisons of the growth in retail front footage in the central business district with suburban areas by selected types of business. As given in Figure 3, the relative expansion of retail stores in suburban areas has been greatest in furniture and flower stores. In addition, suburban areas experienced substantial percentage gains in bakery, grocery, and drug stores. It is reasonable to expect that the downtown area would decline in relative importance in the retailing of convenience items, such as groceries, bakery products, and drugs, which tend to be purchased close to home. Flowers, because of their relative

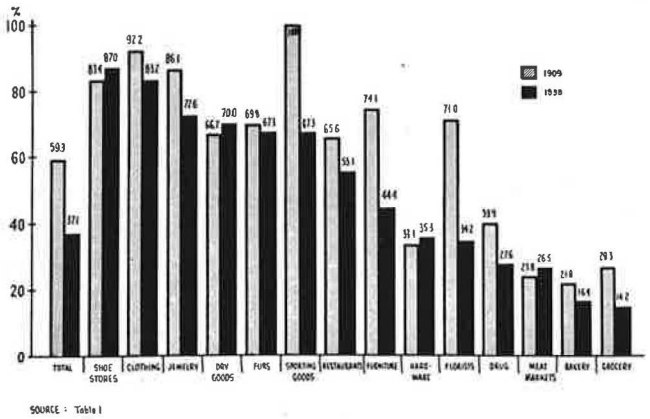

Figure 3. Percentage of Seattle retail front footage in central business district.

perishability, might logically fall into the convenience classification as well. However, the expansion of furniture stores on the fringe of the downtown district and in suburban areas has been very noticeable. High rentals for the extensive floor space required for furniture stores, as well as a desire for more convenient parking, may have been contributing factors to decentralization.

In spite of the fact that there was a substantial drop in the relative importance of downtown retailing in Seattle from 1909 to 1938, there are several lines in which slight increases were registered in the percentage of front footage devoted to downtown stores. This trend was evident for outlets handling shoes, dry goods, hardware, and meats.

The relative importance of downtown stores in 1938 was greatest in the shoe, clothing, dry goods, jewelry, and fur lines. All of these lines involve shopping items for which the consumer generally prefers large selections and comparison shopping. The relative strength of downtown sales in these fields is verified in the breakdowns secured for the 1939 and 1948 Retail Censuses.

Sales Trends in the Metropolitan Area

Total Sales. Comparisons of retail sales transacted in the city of Seattle with those of the metropolitan area, King County, are of interest. Table 2 indicates that between 1929 and 1948 the percentage of county

TABLE 2
RETAIL SALES TRENDS, SEATTLE METROPOLITAN AREA
1929–1948

Year	Retail Sales—King Co.		Retail Sales—Seattle		Seattle Sales
	(dollars)	As a % of 1929	(dollars)	As a % of 1929	As a % of County Sales
1929	278,092,000	100.0	252,169,000	100.0	90.7
1935	184,408,000	66.3	163,185,000	64.7	88.5
1939	238,317,000	85.7	208,537,000	82.7	87.5
1948	753,744,000	271.0	613,665,000	243.4	81.4

SOURCE: U. S. Censuses of Business, State of Washington.

TABLE 3
POPULATION TRENDS, SEATTLE METROPOLITAN AREA
1930–1950

Year	King County		Seattle		Seattle as a % of County Population
	Population	% increase in decade	Population	% increase in decade	
1930	463,517	19.1	365,583	15.9	78.9
1940	504,980	8.9	368,302	1.4	72.9
1950	732,992	45.2	462,440	25.6	63.1

SOURCE: U. S. Censuses of Population, State of Washington.

TABLE 4
PER CAPITA RETAIL SALES, SEATTLE AND REMAINDER OF KING COUNTY
1929–1943

Year	Per Capita Retail Sales		Per Capita Sales % of 1929	
	Seattle	Remainder of King County	Seattle	Remainder of King County
1929	$689.77	$264.70	100.0	100.0
1935	444.63	196.89	64.5	74.4
1939	566.21	217.88	82.1	82.3
1948	1,339.17	611.32	194.2	230.9

SOURCE: Tables 2 and 3.

retail sales transacted within Seattle fell from 90.7 percent to 81.4 percent. Population figures during approximately the same years indicate the trend of suburban growth in the metropolitan area. Table 3 shows that between 1930 and 1950 the percentage of the total county population residing within the city declined from 78.9 percent to 63.1 percent. As is true in most metropolitan areas, a considerable amount of retail purchases of residents outside the city limits tends

to be made within the city. It would appear that in spite of the population growth of suburban areas, the ratio of sales within the city is remaining higher than the ratio of population within the city.

Comparisons of per-capita retail sales in Seattle with those of the remainder of the county shed more light on the subject. As indicated in Table 4, in 1948 per-capita sales within the city are more than double those outside the city. While a slightly greater increase in per-capita sales is indicated in the county from the period 1929 to 1948, the gap between sales per capita in King County and the city of Seattle is still very wide. It is reasonable to assume that county residents are making a somewhat greater percentage of purchases outside the city as a result of improved shopping facilities and less congestion in the new areas. The growth of large suburban centers near Seattle has occurred since 1948. Undoubtedly, the development of new facilities in the last four years will tend to increase sales per capita in the county faster than in the city.

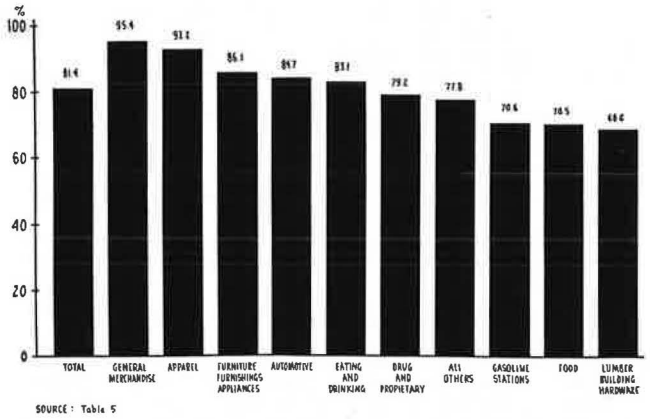

Figure 4. Retail sales in Seattle as a percent of King County by census categories.

By Groups of Stores. Comparisons of retail sales within the city of Seattle with total county sales in 1948 by the ten census categories[5] in 1948 indicate the relative strength of city stores by groups. Figure 4 reveals that especially in the general merchandise group, apparel group, and furniture-and-appliance group, the percentage of business done by city stores is greatest. In these fields comparison shopping and variety of selections are important buying motives. On the other hand, suburban stores are relatively stronger in the lumber, building, and hardware group, food group, and gasoline service station group. In the latter three groups, consumers generally prefer to trade close to home. These stores also require a high ratio of parking area to operating area and can seldom pay the high land rentals necessary for central-business-district locations.

[5] See appendix for list included under each group.

Retail Trends as Indicated by a Comparison of the 1939 and 1948 Censuses of Business

Special tabulations secured from the Bureau of Census for the 1939 and 1948 Censuses of Business, permit comparisons to be made of the relative volume of retail trade in the central business district with the rest of the city. The first comparisons deal with the number of retail stores by the major categories reported in the census.

TABLE 5
RETAIL SALES, BY MAJOR CENSUS CATEGORIES, SEATTLE AND KING COUNTY
1948

Categories of Stores[a]	Seattle	King Co.	Seattle as a % of King Co.
Total	$613,665,000	$753,744,000	81.4
General merchandise	134,472,000	140,911,000	95.4
Apparel	46,502,000	49,877,000	93.2
Furniture, furnishings and appliances	31,187,000	36,231,000	86.1
Automotive	90,215,000	106,498,000	84.7
Eating and drinking	52,207,000	64,064,000	83.1
Drugs and proprietary stores	18,584,000	23,477,000	79.2
All others	70,524,000	90,524,000	77.8
Gasoline service stations	26,854,000	36,854,000	70.6
Food group	118,170,000	167,605,000	70.5
Lumber, building and hardware	25,881,000	37,733,000	68.6

[a] See appendix for complete list of stores included under each category.

SOURCE: Census of Business: 1939, Retail Trade—Washington, Table 15, pp. 8–9. Census of Business: 1948, Retail Trade—Washington, Bulletin No. 1-R-46, Table 103, p. 46.08.

In Number of Retail Stores in the City. However, before dealing with the central business area, it is of interest to review changes in the number of retail stores in the entire city between 1939 and 1948. During this period, in which the population of the city increased about 25 percent, the number of retail stores declined. As indicated in Table 6, the total number of retail stores in Seattle dropped from 6,563 to 5,754. Most of this decline occurred in the food group where a trend towards fewer and larger units was very marked during the period. Declines also were registered in the apparel, gasoline-service-station, drug, and all-other categories. On the other hand, the number of retail stores in the eating and drinking group; general merchandise group; furniture, furnishings, and appliance group; automotive

group; and lumber and building materials group increased.

Central Business District. When comparisons are made between the number of stores in the downtown area as a percentage of the total number in the city in 1939 and 1948, a small decline is shown. In 1939 the central business district had 26.6 percent of all retail stores in the city, while in 1948 it had 23.0 percent. When the field and general merchandise category remained almost stationary. In fact, a slight gain was registered in the general-merchandise group. Very little change in the relative importance of the central business district was indicated in the gasoline-service-station or lumber, building, and hardware groups. However, the relative amount of business transacted downtown in these categories of stores is relatively small as compared with

TABLE 6

NUMBER OF RETAIL STORES IN SEATTLE AND IN SELECTED DISTRICTS, 1939 AND 1948

	Seattle		Central Business District[a]		Central Business Dist. as a % of City		Univ. Dist.[a]		Univ. Dist. as a % of City	
	1939	1948	1939	1948	1939	1948	1939	1948	1939	1948
Total	6,563	5,754	1,746	1,326	26.6	23.0	213	201	3.2	3.5
Food group	2,055	1,391	271	148	13.2	10.6	50	26	2.4	1.9
Eating and drinking places	1,330	1,337	493	412	37.1	30.8	35	37	2.6	2.8
Gen. merch. group, general stores	117	150	21	24	17.9	16.0	4	7	3.4	4.7
Apparel group	470	434	321	250	68.2	57.6	32	39	6.8	9.0
Furniture, furnishings, appliances group	222	298	87	59	39.2	19.8	12	19	5.4	6.4
Automotive group	134	191	6	4	4.5	2.1	9	7	6.7	3.7
Gasoline service stations	670	662	30	30	4.5	4.5	12	15	1.8	2.3
Lumber, building, and hardware group	213	235	23	21	10.8	8.9	4	6	1.9	2.6
Drug and proprietary stores	249	221	57	40	22.9	18.1	6	7	2.4	3.2
All other retail stores	1,103	835	437	338	39.6	40.5	49	38	4.4	4.6

[a] Based upon special tabulations received from the Bureau of the Census.
NOTE: Central Business District includes Census Tracts M-1, M-2, and O-1. University District includes Census Tract D-6.

ten census categories are considered,[6] the percentage of retail stores downtown declined in every classification except gasoline stations and the all-other category. The largest percentage decline took place in the furniture, furnishings, and appliance group (see Fig. 5).

The relative importance of the central business district in retailing as reflected by sales figures is perhaps of greater significance than number of stores. As indicated by the 1948 figures (see Table 7), the central business district accounted for 34.8 percent of the of the city's retail sales. The relative importance of the downtown area, when measured by the ten major census categories, varied from 85.2 percent in apparel to 1.0 percent in the automotive group. The central business district appears to have the greatest percentage of sales in the apparel and general merchandise group (largely department stores). These are the categories in which a wide selection of merchandise and an opportunity for comparison shopping are important factors to shoppers. The area appears to be relatively weak in the automotive, gasoline-service-station, and food groups (see Fig. 6).

Between 1939 and 1948, the percentage of retailing done in the central business district declined from 39.6 percent to 34.8 percent. Between these two dates the relative popularity of the downtown area in the apparel

[6] See appendix for complete list of stores under each category.

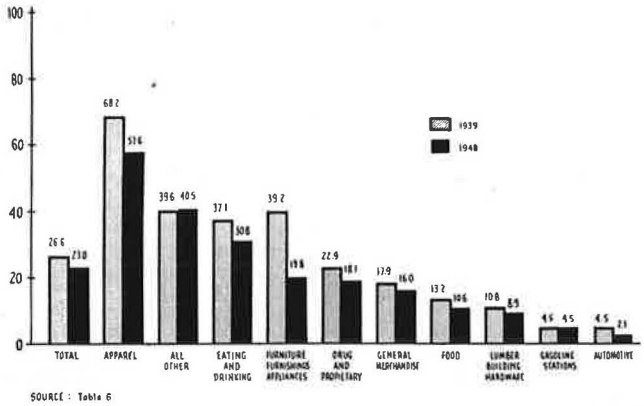

Figure 5. Number of retail stores in central business district as a percentage of Seattle total.

most other groupings. It is interesting to note that the percentage of sales achieved by downtown furniture, furnishings, and appliance stores dropped from 65.3 percent to 32.3 percent from 1939 to 1948.

A comparison of sales of downtown retailers with total retail volume in the metropolitan area, King County, reveals a picture similar to the previous comparison of downtown sales with total city sales. As indicated in Table 8 and Figure 7, between 1939 and 1948 the percentage of county retail sales transacted in the central business district declined from 34.7 per-

cent to 28.4 percent. As shown when comparisons were made with city sales, the relative volume of sales in the downtown area declined in all retail categories, except in general merchandise. However, the percentage of county sales secured by downtown stores in the food group, eating-and-drinking-establishment group,

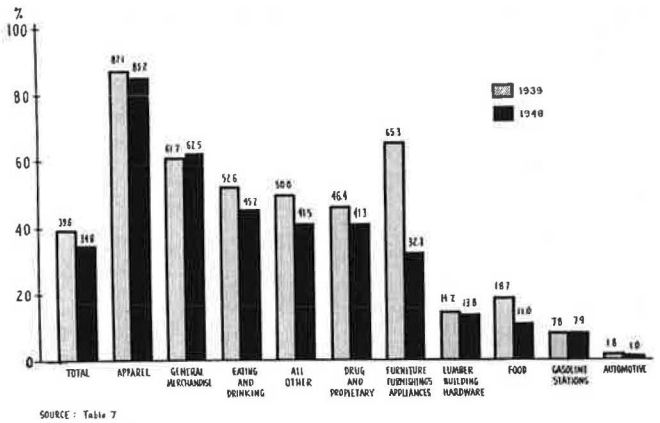

Figure 6. Retail sales in central business district as a percentage of Seattle total.

university district between 1939 and 1948. As indicated in Table 6, the number of retail stores in the district as a percentage of the total in the city increased from 3.2 percent in 1939 to 3.5 percent in 1948. When comparisons are made by types of retail stores, relative gains were greatest in the general merchandise group; apparel group; and furniture, furnishings, and appliance group. In the automotive category, a large percentage decline was experienced in the number of stores in the district. Sales comparisons between 1939 and 1948, however, indicated an increase in the percentage of business secured by district automotive stores.

According to the 1948 census figures, the university district had a relatively high percentage of stores in the apparel and furniture-furnishings-appliance groups. It contained 9.0 percent of the city's apparel stores and 6.4 percent of the furniture-furnishings-appliance outlets.

Between 1939 and 1948 the percentage of Seattle's retail trade obtained by university-district merchants increased from 3.0 percent to 3.7 percent. As shown in Figure 8, the largest relative increases were experienced

TABLE 7

RETAIL SALES IN SEATTLE AND IN SELECTED DISTRICTS, 1939 AND 1948

	Seattle[a] ($1,000)		Central Business District[b] ($1,000)		Cent. Bus. District as a % of City		University District[a] ($1,000)		Univ. Dist. as a % of City	
	1939	1948	1939	1948	1939	1948	1939	1948	1939	1948
Total	208,537	613,665	82,679	213,785	39.6	34.8	6,335	22,652	3.0	3.7
Food group	41,043	118,170	7,693	13,017	18.7	11.0	1,532	3,992	3.7	3.4
Eating and drinking places	18,105	52,207	9,530	23,594[c]	52.6	45.2	776	1,899	4.3	3.6
Gen. merch. groups, general stores	42,728	134,472	26,377	84,063[d]	61.7	62.5	449	1,357	1.0	1.0
Apparel group	17,257	46,502	15,034	39,622	87.1	85.2	560	3,063	3.2	6.6
Furn., furnishings, appliances group	8,860	31,187	5,785	10,063[c]	65.3	32.3	487	2,326	5.5	7.5
Automotive group	28,903	90,215	521	860[c]	1.8	1.0	586	3,657	2.0	4.1
Gasoline service stations	12,195	26,006	955	2,049	7.8	7.9	357	879	2.9	3.4
Lumber, building and hardware group	7,450	25,881	1,058	3,573[c]	14.2	13.8	145	569	1.9	2.2
Drugs and proprietary stores	7,341	18,584	3,409	7,680	46.4	41.3	326	1,012	4.4	5.5
All other retail stores	24,655	70,441	12,317	29,264[c]	50.0	41.5	1,117	3,898	4.5	5.5

[a] Census of Business: 1939, Retail Trade—Washington, Table 15, pp. 8–9. Census of Business: 1948, Retail Trade—Washington, Bulletin No. 1-R-46, Table 103, p. 46.08.

[b] Based upon special tabulations received from the Bureau of the Census.

[c] Figures estimated, actual figures withheld by Census to avoid disclosure. Estimated by taking average sales per store in other downtown census tracts.

[d] Variety store sales estimated.

NOTE: Central Business District includes Census Tracts M-1, M-2, and O-1. University District includes Census Tract D-6.

and the drug-and-proprietary group declined more rapidly between 1939 and 1948 than the percentages of city sales for these groups. As shoppers tend to buy a large percentage of these convenience categories of items close to home, the rapid population increase enjoyed by county areas would tend to be reflected in these sale comparisons.

University District. The special breakdowns received from census permit retail trends to be shown for the

in the apparel, furniture-furnishings-appliance, and automotive groups.

It is of interest to note that in 1948 the university district was strongest in terms of percentage of business in the furniture-furnishings-appliance and apparel groups.

From a sales standpoint, in 1948 the district was weakest in the general-merchandise category. The area lacks a large department store but does have several

variety stores. In the last census, the university district accounted for more sales in the automotive group than the central business district.

The importance of the university district as a suburban shopping center is indicated by the fact that the

TABLE 8
RETAIL SALES, CENTRAL BUSINESS DISTRICT COMPARED WITH KING COUNTY

	King County[a] (Thousand Dollars)		Central Business District[b] (Thousand Dollars)		Central Business District as a % of King Co.	
	1939	1948	1939	1948	1939	1948
Total	238,317	753,744	82,679	213,785	34.7	28.4
Food group	50,060	167,605	7,693	13,017	15.4	7.8
Eating and drinking places	20,802	64,064	9,530	23,594[c]	45.8	36.8
General merchandise group, general stores	44,910	140,911	26,377	84,063[d]	58.7	59.6
Apparel group	17,548	49,877	15,034	39,622	85.7	79.4
Furniture, furnishings and appliances group	9,411	36,231	5,785	10,063[c]	61.5	27.8
Automotive group	32,092	106,498	521	860[c]	1.6	0.8
Gasoline service stations	16,497	36,854	955	2,049	5.8	5.6
Lumber, building, & hardware group	9,720	37,733	1,058	3,573[c]	10.9	9.5
Drug and proprietary stores	8,325	23,447	3,409	7,680	40.9	32.8
All other retail stores	28,952	90,524	12,317	29,264[c]	42.5	32.3

[a] Census of Business: 1939, Retail Trade—Washington, Table 15, pp. 8-9 Census of Business: 1948, Retail Trade—Washington, Bulletin No. 1-R-46 Table 103, p. 46.08.

[b] Special tabulations received from the Bureau of the Census.

[c] Figures estimated, actual data withheld by Census to avoid disclosures. Estimated by taking average sales per store in other downtown census tracts.

[d] Variety stores also estimated.

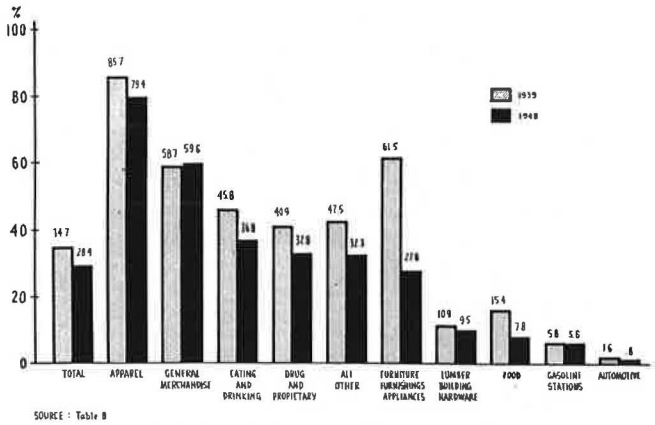

Figure 7. Retail sales in central business district as a percentage of King County total.

district tends to be relatively more important in the shopping-goods categories of stores than in convenience goods, such as foods and eating establishments.

Recent Sales Trends. It is unfortunate that comparative sales figures for the various areas cannot be secured after 1948, so more recent shopping trends may be shown. Although more up-to-date sales figures are not obtainable, the creation of the large Northgate Shopping Center with 470,000 sq. ft. of operating space, as well as the development and expansion of other smaller shopping centers, has undoubtedly increased competition for downtown retailers, as well as stores in other suburban areas, since 1948. Property-management executives and real-estate consultants expressed opinions that Northgate, for example, was draining retail trade from the downtown area, the university district, and other older north-end shopping centers. It appears likely that suburban centers are capturing much of the expansion in retail business in the metro-

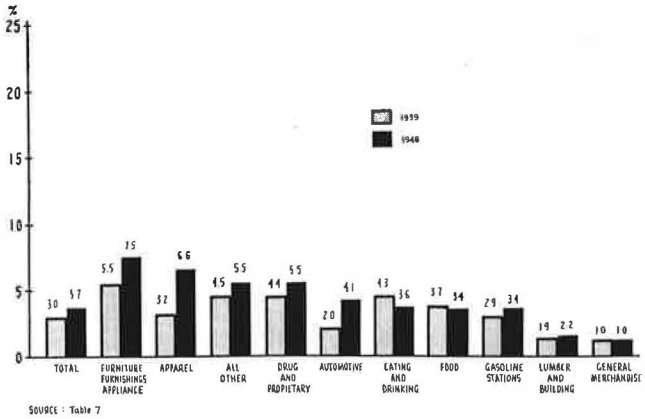

Figure 8. Retail sales in university district as a percentage of Seattle total.

politan area which results from population increases. The next census will permit a more accurate appraisal of recent sales trends.

Federal Reserve Index of Department Stores Sales Compared with Total Retail Sales

Another possible indicator of downtown-store sales is the Federal Reserve Board Index of Department Store Sales for Seattle. Although the specific stores used in the index cannot be divulged by the Federal Reserve Board, it is known that the index contains only department and large specialty stores in Seattle, the great majority of which are located in the central business district.

A comparison of the Federal Reserve Index of Department Store Sales is made with total retail sales in Seattle during census years. This comparison, Table 9, indicates that department-store sales have risen faster than the index of total retail sales in Seattle. Since department and specialty stores deal heavily in shopping items in which large selections are important, further evidence is offered to the effect that the down-

those congested areas where turnover of parking will facilitate the movement of traffic and permit better use of services in the area.

While in some areas law enforcement, as related to parking, is well administered, abuse of overtime parking within the 9 A.M. to 4 P.M. period should be eliminated.

We strenuously urge vigilance in enforcement of all parking regulations as a condition precedent to efficient traffic regulation.

Panel Recommendations Regarding Off-Street Parking.[21] (Statements by Warren L. Morris, from Presentation Session, May 2, 1952.)

In general, it was found that the southerly end of the central business district's demand for off-street parking facilities was weighted toward all-day parking needs; while the demand upon the northerly existing off-street parking accommodations tended more toward transient, or in-and-out requirements, with a transition between the two extremes.

Taking the more concentrated retail or shopping district as bounded by Stewart and University Streets, First Avenue and Sixth Avenue, which presumably carries the overwhelming majority of retail sales in the central business district; we find, according to the City's tabulation, that this retail district is surrounded with a band of two blocks in which there exist today 2,125 spaces in garage accommodation and 3,468 in parking lot accommodations. Within this retail district itself, there exist 1,015 garage spaces and 346 parking lot spaces or a total of 6,954 existing car spaces serving this defined retail area.

While every off-street parking facility of these enumerated was not individually checked as of the date of inspection by the two representatives of the Panel, May 1st and 2nd, a very liberal sampling was made. Not one facility was found, between the hours of 1:30 P.M. and 3:30 P.M., to be occupied to capacity. In fact, the highest occupancy was found to be 80% and several modern facilities were found to be less than 50% occupied.

In the southerly portion of the central business district where off-street parking accommodations cater more to the all-day parkers of the wholesale and financial districts, a similar lack of absorption was noted. Besides, there was a number of combination gas and oil-parking lot facilities advertising "free all day parking with purchase of 10 gallons of gasoline."

This seems to indicate rather conclusively that the existing supply of off-street parking facilities substantially exceeds the current demand.

Panel Recommendations Regarding Existing Facilities.[22] (Statements by Warren L. Morris, from Presentation Session, May 2, 1952.)

While the steep grade of a majority of Seattle's east-west streets in the central business district may have its handicaps so far as weak circulation systems and soft leg muscles are concerned, that feature lends itself rather ideally to efficient development of multiple deck parking facilities. The limited use of this advantage of topography may be attributed to two factors: (1) the adequacy of existing supply and (2) the stringency of the Seattle building code and fire regulations with respect to the construction of multiple deck garages.

The Panel is of the opinion that the building code is unduly severe and that the ends of safety can be served adequately by some modification of the code requirements. In spite of the present adequacy of parking supply, the Panel recommends a re-study of the building code requirements, with a view to modification of their application to open multiple deck parking garages. That review should be made to the end that when the need for expansion of facilities arises, this problem will have been disposed of in advance, rather than expecting prospective developers to prepare plans and specifications on the gamble that they will be approved.

Future Expansion of Facilities: It is the conclusion of the Panel that on the base of the existing facilities and current public improvements, there exists the opportunity for ample increase to meet a foreseeable increase in demand.

The conclusion is based upon the belief that (1) a more cooperative code for building requirements will enable many existing parking lots to increase present capacity by 50% to 100% through conversion to open-deck enlargement; and (2) a substantial addition to off-street parking will be made by creating a parking facility under the Alaskan Way Viaduct project—whether the accommodation is by the parking meter or a private operator method.

Fees: On examination by sampling of parking fee charges, the Panel is of the opinion that current fees charged by private operators are conservative.

Types of parking lots: In passing, the Panel observes that there are excessive numbers of small parking lot units in relation to the total car spaces. Larger units would result in more economical operation and improved service to the parking public.

Parking Legislation—Proposed Parking Authority Legislation, 1951.[23]

Washington cities cannot establish municipally owned or operated off-street parking facilities. Permissive legislation was introduced at the 1951 State Legislature's sessions. This proposed act, known as Senate Bill #43, failed of passage. This bill was sponsored by the Seattle Chamber of Commerce and various Washington cities.

In outline, the proposed act relating to publicly owned off-street parking facilities included the following:

The cities are permitted to use their power of eminent domain to acquire property for off-street parking purposes.

Parking facilities must be offered for lease to highest bidder, but, if no bids are received, city can operate, but must put up bid every three years. No provision in bill requiring lease agreement before city acquires property. (No provision that facilities must be operated by private enterprise.)

City may defray cost of preliminary planning, engineering, economic surveys and administrative expense. City may also advance money to acquire facilities, but it must be paid back. (No specified time to reimburse loan. No financing by revenue bonds pledging parking meter revenues as guaranty to pay bonds.)

Master plan for parking must be prepared by city planning commission and adopted after public hearings. Public hearings provided at various steps. (No determination that parking is best use of land before property taken through condemnation. "In lieu of taxes" payments not made mandatory.)

Contains Local Improvement District provision. Intent is to make it applicable to outlying neighborhoods and to smaller cities and towns. (Nothing to prohibit use of L. I. D. in downtown Seattle but, locally, considered too difficult to figure "benefitting property.")

Statements in Opposition to Parking Authority Legislation.[24]

The Seattle Downtown Garage Association opposed the legislation with these arguments:

[21] Ibid., p. 8.
[22] Ibid., pp. 8-9.
[23] Ibid., p. 61.
[24] Ibid., pp. 61-62.

Blanket right to condemn privately-owned property for garages or parking lots is not necessary and would be harmful to property owners. (Association violently opposed to use of eminent domain.)

City competition with private enterprise will be ruinous for the latter and will require the city eventually to take over all parking garages and lots.

Right of city to fix parking rates high enough "at least" to pay construction and operating costs means they will not be set high enough to provide any profit for a private lessor.

Intentions of those favoring the bill are indicated from proposals in the 1947 CBD Parking Survey.

This Association and others opposed the legislation based upon a proposal contained in the Parking Survey. This listed 14 proposed sites to be acquired at twice the assessed value, which created violent opposition by owners. The survey also figured garage construction at $500 per stall whereas it was claimed $1,500–$2,000 would be the cost. Objection was also taken to revenue from shops at garage and lot sites, as an indication that the City would go into business other than parking.

The Association offered these alternatives to a Parking Authority: (1) Curb parking meter rates should be raised from 5 to 10 cents and parking time should be cut from one hour to one-half hour or less in key demand places and better enforcement of the parking limit. (2) The City should require new buildings to include parking space. (3) The City should encourage expansion of business to outlying districts which would avoid increasing downtown congestion.

Panel Recommendations.[25] (Statements by Warren L. Morris, from Presentation Session, May 2, 1952.)

The Panel has found it impractical to compel by ordinance the inclusion of specified parking facilities in any new construction within the limits of a central business district.

Public vs. Private Ownership and Control: The Urban Land Institute has steadfastly supported private enterprise in business, in contrast to intrusion of Government into business operation. Off-street parking has become a substantial business activity in the United States. Capital invested in off-street parking facilities by private investors and operators has become very substantial.

In some cities where panels from ULI have studied central business districts, the application of a local provision of eminent domain in the acquisition of sites for off-street parking has been approved and recommended, providing the operation of the parking facilities on sites so assembled and acquired was turned over, through due process, to private operation. The Institute's approval and recommendation has been given in situations where the obstacles to private land assembly and acquisition were such as to leave no other course open to meet a critical need of the community.

The Panel also has a definite conviction that any land acquired through the process of eminent domain for off-street parking should bear its normal assessed tax or some form of payment equivalent thereto.

So far as the City of Seattle is concerned, the Panel sees no present need whatsoever for the enactment of legislation to permit the municipal authorities to acquire land solely for off-street parking facilities by the use of eminent domain; nor does need for such appear imminent in the foreseeable future. In any event, it is the conclusion of this Panel that there is no occasion in Seattle for the municipality to embark upon the business of owning and operating off-street parking facilities to serve adequately and properly the parking needs of its citizens.

[25] Ibid., pp. 9–10.

STEPS BEING TAKEN TO IMPROVE DOWNTOWN PARKING

By the City

A number of steps have been taken by various divisions of the city government to provide more adequate parking in the central business district. At the present time, over 200 parking meters are being installed under the Alaskan Way viaduct to accommodate short-time parkers. The installation of these new meters, however, will not relieve parking needs in or close to areas in greatest need of parking facilities. As a result of the Urban Land Study, as well as independent surveys by the City Traffic Engineering Department, the city council has approved reducing parking meter time from 1 hr. to ½ hr. in the entire central business district. At present, the majority of metered space permits hour parking. By speeding up the turnover of parkers using curb space, more cars can be accommodated in the central business district.

The City Planning Commission has proposed an amendment to the building code which would require adequate provision for parking to be made by any new building or major alteration of an existing building in areas outside the central business district. The proposed amendment requires each individual dwelling unit to provide off-street parking for one vehicle. Requirements for other new structures vary with the type and size of facility being erected. Considerable opposition to the proposed ordinance has been offered at hearings, and some changes have been made in the original proposal.

If off-street-parking facilities are required for new construction outside the central business district, it is likely that the downtown area may also be included at a later date. However, high land values would make it difficult to require the provision of as high a ratio of parking downtown as in other areas of the city.

By Retailers

Retailers in downtown Seattle have not been as active in providing or subsidizing parking facilities as merchants in a number of other cities. At the present time, only one large department store is validating tickets for downtown parkers. Rhodes Department Store validates parking tickets for shoppers at the Four Stores Garage permitting 2 hr. of parking for 25 cents. A few of the smaller retailers also validate parking tickets for shoppers, but as a whole the practice is relatively unimportant.

Frederick & Nelson, which has recently completed a major expansion of its downtown department store, is located in an area with a large deficit of closely located

parking space. Plans are under consideration to underwrite the construction of additional parking facilities within a block of the store to be operated by an independent parking concern. Actual construction plans are being held back until less expensive multideck parking facilities are permitted under the Seattle Building Code.

While the large downtown retailers are aware of the importance of parking facilities to their shoppers, they possibly could do more to inform the local public of the availability of facilities within a block or two of their stores. Suburban areas are emphasizing the availability of parking facilities surrounding their establishments and publish maps from time to time to point out parking-lot locations. Similar promotion by large downtown retailers would assist downtown shoppers to find parking facilities during peak periods and to avoid congestion in a few very conveniently located lots and garages.

CONCLUSIONS ON DOWNTOWN PARKING

The decline in number of available parking spaces in the central business district has been fairly rapid during the past 5 yr. While the city experienced a 22.5-percent increase in vehicle registrations between 1947 and 1952, parking space in the downtown area declined 12.7 percent. This reduction in parking space is particularly serious, because the majority of lost parking is curb space, which has the highest turnover. Occupancy figures in the areas generating the most parking demand downtown show the lack of surplus off-street space even when no unusual demand conditions are present. If the present decline in downtown parking space continues, it could have serious repercussions on the future of the area.

While some steps are being taken to alleviate the shortage of parking space, such as shortening the maximum meter time and planning the construction of limited additional off-street facilities, additional effort might be focused on the creation of more space and the more-complete utilization of existing parking facilities.

Further steps which might assist downtown parking are: (1) the revision of the building code to permit lower cost multilevel parking facilities; (2) more-rigid enforcement of curb parking regulations; (3) increased publicity regarding the availability of off-street facilities in areas adjacent to some of the chief downtown parking generators; and (4) more-active support for the creation of additional parking facilities by those groups who will suffer greatest losses if downtown parking congestion increases. (The Urban Land Study pointed out that Seattle department stores had done less to promote adequate downtown parking facilities than retailers in most other metropolitan areas studied.)

UNIVERSITY DISTRICT PARKING

Parking problems in the university district are second in seriousness to those of the central business district. The shopping area was built up before the automobile became such an important mode of transportation and inadequate provisions were made for automobile parking. Parking problems within the district are also intensified by other factors. Parkers living in apartment houses and other multiple dwellings limit the amount of curb space which can be used by those shopping and transacting business in the university district. Also, the district is adjacent to the University of Washington, whose large enrollment of Seattle students creates additional pressure on parking facilities.

A recent survey made by the author among residents of northeast Seattle indicated that about 65 percent of the shoppers used automobiles to reach the university district, 29 percent public transportation, and 6 percent walked. If a study were made of more distant shoppers patronizing the university district, an even higher percentage of automobile users would undoubtedly be found.

Steps Taken to Improve Parking Conditions

In order to relieve parking congestion, the merchants and professional men in the university district have coöperatively developed a parking lot holding 120 automobiles on which they validate parking tickets. A validated parking ticket entitles a parker to 2 hr. of free parking. This lot tends to be used largely by those parking over an hour or during periods when other parking facilities appear to be full.

Several retailers and service establishments have developed individual parking lots for their patrons. One of the largest lots of this type is the University Bank Lot, accommodating 101 cars. Although the bank is closed most evenings, the parking lot remains open to accommodate evening shoppers on Thursday when district stores are open.

To increase turnover of curb spaces, the University Commercial Club was able to have the city increase the number of meters on streets adjacent to the shopping area.

In order to relieve the pressure of student parkers on curb spaces on streets close to the university district, the University of Washington developed a large lot in the northwest part of the campus holding 830 cars.

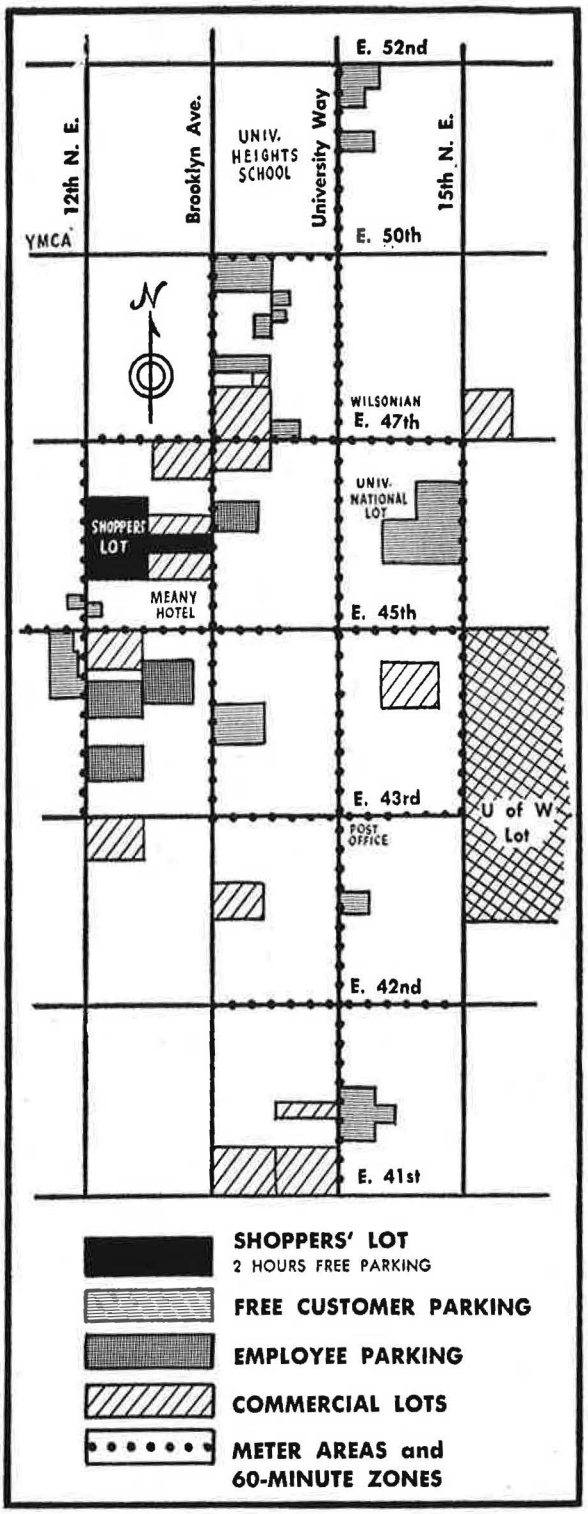

Figure 16. University district parking areas.

Although a charge is made for parking, the lot is widely patronized by students driving to school. Plans are being made to expand student parking facilities in the immediate future so that an additional 390 vehicles may be parked on the campus (see Fig. 16).

Parking Space Available

A survey of parking space in the university district indicates that 1,297 spaces are available for short-time parkers and 339 for those parking all day. The facilities included are those within a block or two of the shopping streets in the district. A complete summary of available parking spaces is included in Table 34.

TABLE 34
UNIVERSITY DISTRICT PARKING FACILITIES
August, 1952

Type	No. of Spaces	Percent of Total
I. For Short-time parkers		
Street metered	420	32.4
Street free	314	24.2
Garage and service station	187	14.4
Shopper's parking lot	120	9.3
Supermarket lots	103	8.0
Bank lot	101	7.8
Individual customer lots	50	3.9
Total	1,297	100.0
II. For all-day parkers		
Monthly parking and storage	197	58.1
Private employees lots	142	41.9
Total	339	100.0

SOURCE: Survey of Parking Facilities, August, 1952.

With the opening of the Northgate Shopping Center, 2 mi. to the north of the university district, additional attention is being focused on the parking needs of the university area. It is contemplated that some additional smaller parking lots will shortly be developed and cooperatively supported by business men in the area.

Occupancy of Parking Facilities

In order to check the occupancy of short-time parking facilities in the university district, parking spaces being used were checked for a week. The week selected was one during which weather conditions and shopping conditions appeared to be not unusual. The survey was made from 1:30 to 3:30 in the afternoon, when parking for daytime shopping is generally at its peak. As indicated in Table 35, vacant parking spaces ranged from 30.7 percent on Friday to 42.7 percent on Tuesday. The ratio of vacant parking spaces on the Shopper's Lot was considerably higher than for the Bank Lot or metered spaces. Both the Shopper's Lot and the Bank Lot are self-parking facilities.

The tendency for the Shopper's Lot to have a greater percentage of vacancies may be the result of several

factors. The Shopper's Lot is located 1½ blocks from the main shopping street in the district, while the Bank Lot is only ½ block distant. Most parkers resist having to walk a block or more when parking in a suburban district and attempt to find curb spaces or free lots located closer to their destination. In addition, the user must have a parking ticket validated to secure free parking for a time period up to 2 hr. It appears that the present Shopper's lot handles those who wish to park more than an hour or those who cannot find free parking closer to their destination.

All of the stores in the university district remain open on Thursday evening. Evening parking was checked on two successive Thursday evenings. As indicated in Table 35, total vacancies in all the three

TABLE 35
OCCUPANCY OF PARKING SPACES IN THE UNIVERSITY DISTRICT
August, 1952

Date	Street-Meter (420 Available)		Bank Lot (101 Available)		Shoppers Lot (120 Available)		Total Vacancy (641 Possible)	
	No. Vacant	%	No. Vacant	%	No. Vacant	%	No. Vacant	%
I. Afternoon—1:30-3:30								
(Mon.) August 18	122	29.0	31	30.7	65	54.2	218	34.0
(Tues.) August 19	170	40.5	40	39.6	64	53.3	274	42.7
(Wed.) August 20	161	38.3	30	29.7	62	51.7	253	39.5
(Thurs.) August 21	143	34.0	33	32.7	63	52.5	239	37.3
(Fri.) August 22	105	25.0	35	34.6	57	47.5	197	30.7
II. Evening—7:30-9:00								
(Thurs.) August 7	11	2.6	6	5.9	72	60.0	89	13.9
(Thurs.) August 21	8	1.9	30	29.7	34	28.3	72	11.2

SOURCE: Survey of Parking Facilities, August, 1952.

facilities checked were 11.2 percent and 13.9 percent. Curb facilities on both evenings were filled almost to capacity. When one considers normal parking turnover and the difficulty of finding a space when only 8 to 11 out of 420 curb spaces were vacant, curb facilities could be considered to be at practical capacity. The tendency for parkers to search out curb spaces, even when few are available, indicates the aversion of many parkers to lots when other facilities are available and their desire to park as close as possible to their destination.

The survey of parking-space occupancy indicates that parking facilities in the university district are inadequate when stores are open on Thursday evening. It is also evident that parking facilities would be lacking during peak daytime shopping periods, such as just before school opening, Christmas, and Easter.

The section of the university district in greatest need of additional parking space is University Way from 43rd Street to 47th Street. However, existing structures and high land values on adjacent property make it difficult for new parking facilities to be created close to this area of greatest need. It appears to be practically impossible for a long-established suburban area like the university district to duplicate the parking facilities which new centers like Northgate have been able to plan on tracts where land acquisition prices permitted the provision of a high ratio of parking space to business area.

The university district's Shopper's Lot tends to be used when other facilities are filled or by parkers staying longer than an hour. On the basis of previous surveys made by the project director, it is evident that continuous promotion is needed to keep the public informed of available parking facilities. In 1950 a survey of residents of northeast Seattle indicated that nearly 40 percent of those interviewed had not heard of the Shopper's Lot. Since then the University Commercial Club has increased publicity regarding their lot and other free parking facilities available in the district. A large sign has been erected at the entrance to the lot and small plaques have been attached to light poles in the shopping area to inform drivers of the existence of the Shopper's Lot. In addition, periodic publicity regarding available district parking facilities has been featured in the district newspaper.

NORTHGATE PARKING

Parking Facilities Available

One of the nation's largest planned shopping centers, Northgate, has been laid out to accommodate a large number of parkers. At present, public transportation facilities to the center are practically nonexistent. However, as the district in which Northgate is located has been annexed to the City of Seattle and other areas adjacent to the center are contemplating annexation, extension of city transit lines to Northgate may be a possibility in the future. At present, however, the shopping center is almost completely dependent upon shoppers who travel there by automobile. The off-street-parking facilities indicated in Table 36 are available to shoppers and employees.

As indicated in Figure 17, the main parking lots are located in areas distributed to the west, north, and east of the stores in the center. These areas are the ones generally used by shoppers coming to the center. Although a paved, marked lot accommodating 328 cars is provided for employees east of Fifth Avenue N.E., it has been used very sparingly up to the present time. The overflow lots located to the south of the center

have recently been hard surfaced. Observation of overflow lots indicates little use except during peak periods before Christmas or during special promotional events.

In general, the main lot has been planned to make parking as convenient as possible for the shopper.

TABLE 36
PARKING FACILITIES AVAILABLE, NORTHGATE
Fall, 1952

	Number of Cars
Main Parking Lots	2,710
Employee Parking Lot	328
Overflow Parking Lots	962 (est.)
Total	4,000

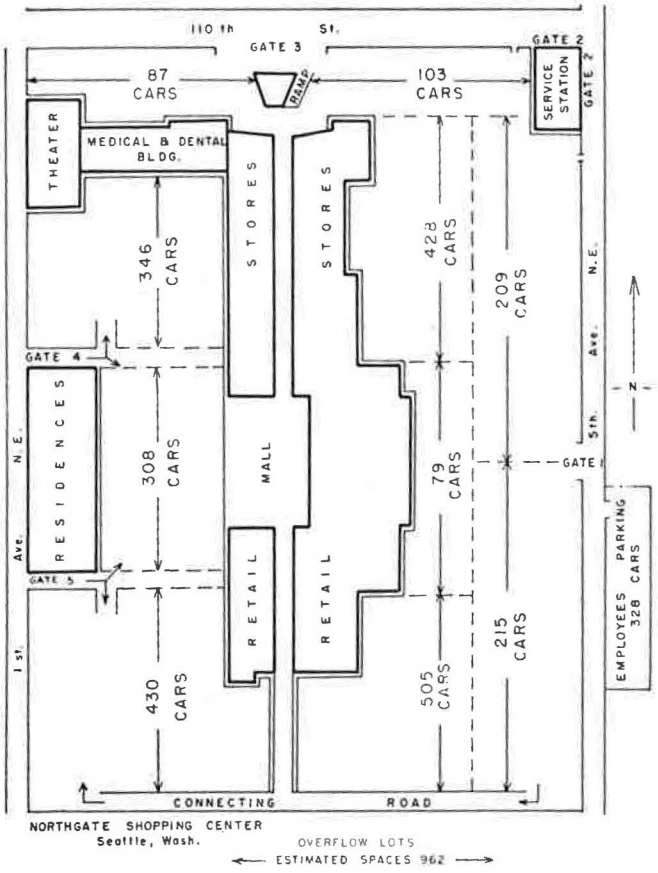

Figure 17. Northgate shopping center.

This lot is asphalt paved. Parking rows are marked with contrasting white-concrete divisions, and each parking stall is indicated with yellow-painted lines. Angle parking prevails. Traffic control is assisted by the use of arrows to direct traffic into proper lanes and to exits. At present, five gates are provided on three sides of the project to provide dispersed entrance and exit. As indicated by Figure 17, the main parking lots surround the retail stores and service establishments so excessive walking is kept at a minimum for patrons.

TABLE 37
RATIO OF PARKING AREA TO OPERATING FLOOR SPACE, NORTHGATE

	Parking Area	Operating Floor Space	Ratio
	sq. ft.	*sq. ft.*	
Without reserve lots	1,088,000	470,000	2.3
With reserve lots	1,376,000	470,000	2.9

TABLE 38
AVERAGE SALE METHOD OF DETERMINING PARKING REQUIREMENTS

I. Given data	
1. Shopping Center to include total area of	500,000 sq. ft.
2. Estimated Annual Sales of	$30,000,000
3. Average Daily Sales of	$100,000
4. Average Purchase	$5
II. Data secured from tenants or parking studies	
1. Number of persons per transaction is	0.75
2. Number of adults per automobile	1.7
3. Average daily turnover of parked automobiles	4.6
4. Weekly peak factor is	1.66
III. Determination of parking requirements	
1. The number of transactions per day can be determined from the average daily sales and average sale or average purchase figure.	$\frac{\$100,000}{\$5}$ = 20,000 transactions per day
2. The number of people making purchases is determined by multiplying the transactions by the people per transaction.	20,000 × 0.75 = 15,000 people
3. The number of automobiles is found by dividing the people by the persons per car.	$\frac{15,000}{1.7}$ = 8,824 cars
4. The number of spaces needed to park these cars is found by dividing the cars by the daily turnover of cars.	$\frac{8,824}{4.6}$ = 1,918 spaces
5. To provide spaces for peak accumulations, the space requirement is multiplied by the peak factor.	1,918 × 1.66 = 3,184
6. To provide 15-percent safety factor (self-parking facilities appear full when 85-per cent occupied).	3,184 × 1.15 = 3,662

In addition, the main lot is broken into sections to avoid traffic congestion.

At present, the main problem for the automobile user is inadequate roads leading to the Northgate area. Although 110th Street to the north is four lanes adja-

cent to the center, it narrows to two lanes in both directions a few blocks away. Streets extending north and south of the project are also narrow, two-laned streets that are inadequate to handle the peak traffic generated by evening shopping. It is also evident that cars turning left into the project, particularly along Fifth Avenue N.E. and on 110th Street, will contribute to traffic congestion. It is fortunate, however, that the center does not border on the main north-south arterials carrying heavy traffic to and from the center of the city

Adequacy of Parking Space

A possible measure of the adequacy of Northgate parking facilities is a comparison of parking area to operating floor space. As indicated in Table 37, without the reserve parking lots, the ratio of parking area to operating floor space is 2.3. With the reserve lot space included, the ratio is 2.9.

Parking studies made by a real-estate consulting firm indicate that large shopping centers should have a parking area to operating floor space ratio of 2 to 1 to take care of normal peak parking demands and a ratio of 3 to 1 to accommodate holiday peak requirements.[26] It would appear that on the basis of these ideal ratios, adequate parking provisions have been made at Northgate.

Average Sale Method of Determining Parking Requirements

It would be very useful if planners of shopping centers could determine the parking requirements of shopping centers on the basis of economic potential rather than entirely on past experience. A possible means of determining parking needs is by the use of the "average sale method." More research is needed to determine some of the data needed, as well as the validity of the method suggested. The method of determining parking requirements as well as the data given were developed out of studies made by Larry Smith & Company from parking surveys of two large West Coast shopping centers (see Table 38).

[26] *Shopping Center Parking*, Larry Smith and Company, Seattle, 1951, p. 6.

Use of Mass Transportation as a Means of Relieving Parking and Traffic Congestion

USE OF MASS TRANSPORTATION IN SEATTLE

Trends in Transit Usage

As shown in Table 39, the use of mass transportation as indicated by number of revenue passengers carried and annual revenue rides per capita has dropped rapidly in Seattle since 1945.[27] This declining trend in the use of mass-transportation facilities is typical of all large metropolitan centers since World War II. It is interesting to note, however, that annual revenue rides per capita in Seattle in 1951 were higher than in 1940. The reason for annual per-capita rides being higher now than in 1940 is probably a higher percentage of employment now rather than a higher percentage of transit use. If present trends continue, per-capita ride figures will drop below those of 1940 in a year or two (see Fig. 18).

Transit Usage, Origin and Destination Study

The 1947 origin-and-destination study indicated that for all trips surveyed, 34.6 percent of Seattle residents used mass transportation, while the remainder used automobiles and other means of individual transportation to reach their destination.

A special tabulation of origin-and-destination data indicates some interesting data on the use of transit facilities by shoppers traveling to some major Seattle shopping centers. As shown in Table 40, 42.4 percent of shoppers having the central business district as their destination used public transportation. As expected, the percentage using transit facilities to reach suburban shopping centers was much smaller, ranging from 29.3 percent for West Seattle to 15.4 percent for Roosevelt. Since transit facilities funnel into the downtown area, it is reasonable to expect a higher percentage of use for the downtown area than for any suburban shopping center (see Fig. 19).

[27] Mass-transportation facilities are trackless trolley and bus.

SUGGESTIONS TO INCREASE USE OF PUBLIC TRANSPORTATION

One method of reducing traffic and parking difficulties, particularly in the central business district, is to increase the use of public transportation into the area. Greater use of mass transportation would reduce traffic congestion and the pressure on existing parking facilities.

Several suggestions have been made to make transit more attractive to riders, particularly shoppers. Among the suggested ways of increasing the patronage of public transportation are:

1. Seattle Transit System would offer reduced fares from 10 A.M. to 4 P.M., their off-peak time, to make it

more attractive for shoppers to ride on their facilities. It is argued that lower fares would stimulate considerably greater traffic and consequently increase revenue to the Transit System. Operating costs for trolleys are nearly the same, regardless of whether the vehicle is nearly empty or full.

TABLE 39
USE OF SEATTLE TRANSIT SYSTEM
1929–1951

Year	Population City of Seattle	Revenue Passengers		Annual Revenue Rides per Capita
		No.	% of 1939	
1929	319,324	67,599,475	129.5	187
1935	367,773	48,065,656	92.1	131
1939	368,056	52,190,854	100.0	142
1940	368,302	56,843,685	108.9	154
1941	381,290	68,417,206	131.1	179
1942	390,586	95,528,358	183.0	244
1943	395,308	115,855,374	222.0	293
1944	406,764	128,961,395	247.1	317
1945	412,554	131,167,111	251.3	318
1946	444,502	117,130,059	225.6	265
1947	454,160	106,807,225	204.6	236
1948	458,240	99,824,055	191.3	217
1949	460,589	92,997,874	178.2	202
1950	462,440	83,802,774	160.6	181
1951	468,000[a]	77,755,449	149.0	161[a]

SOURCE: *"General Report on Seattle Transit System,"* W. C. Gilman & Company, 1951, Table 5; Records of Seattle Transit System.

[a] Estimated.

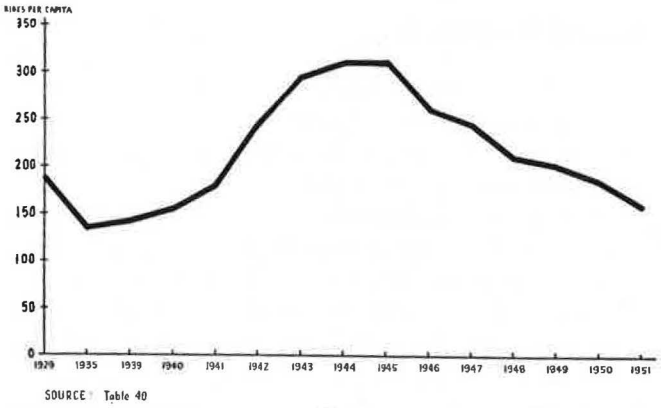

Figure 18. Annual revenue rides per capita, Seattle transit system.

2. Seattle Transit System would offer free rides for one hour for all individuals destined for the central business district during the evening that all downtown stores are open. Returning shoppers would pay for their ride home. It is argued that greater revenue would result from much greater traffic stimulated.

This plan might involve operating and policy difficulties. It would be difficult to determine destinations of many passengers. In addition, suburban shopping districts may feel that similar privileges should be offered to shoppers during the evenings their stores are open.

TABLE 40
MEANS OF TRANSPORTATION USED BY SHOPPERS TO REACH MAJOR SEATTLE SHOPPING CENTERS
1947

District	Auto		Public Transportation		Total	
	No.	%	No.	%	No.	%
Downtown	1467	57.6	1081	42.4	2548	100.0
University	209	79.2	55	20.8	264	100.0
Roosevelt	214	84.6	39	15.4	253	100.0
Ballard	212	72.8	79	27.2	291	100.0
Broadway	220	68.5	101	31.5	321	100.0
West Seattle	106	70.7	44	29.3	150	100.0

SOURCE: Special tabulation prepared from Origin-Destination Traffic Survey Data, Seattle Metropolitan Area, 1947.

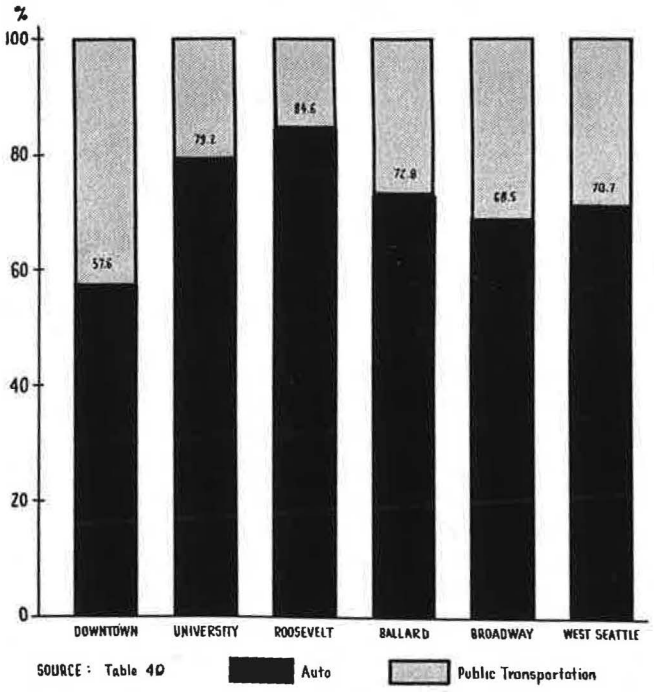

Figure 19. Means of transportation used by shoppers to reach major Seattle shopping centers.

3. The downtown retailers would buy the use of the transit system for an hour in the evening to stimulate evening shopping. This plan could be offered to any district desiring to make a similar arrangement.

4. The city could subsidize the transit system to make use of transit more attractive. It is argued that it would be more economical to subsidize mass trans-

portation than to subsidize the creation of additional parking facilities in the central business district.

FEASIBILITY OF SUGGESTIONS TO STIMULATE GREATER USE OF MASS TRANSPORTATION

In addition to the previously indicated difficulties of adopting any of the above plans, there is doubt whether the use of mass transportation can be increased. The growing use of automobiles in nearly every metropolitan center since the war indicates that, in spite of traffic congestion and parking difficulties, an increasing percentage of the public prefer to use automobiles. It seems doubtful whether reduced fares at a certain time of the day or free rides for shoppers for short periods in the evening will greatly stimulate the use of mass transportation. It is interesting to note that, in spite of the fact that employees receive free transportation on trolleys, one of the most-pressing personnel problems facing the Seattle Transit System is the provision of adequate parking facilities for its employees.

While downtown retailers are aware of the importance of mass transportation to their future, they generally are of the opinion that the trend towards the greater use of the automobile would be difficult to reverse.

CONCLUSION

As nearly half of the people entering and leaving the central business district use mass transportation, it is important to the health of the downtown area that good mass transportation be provided. Reports of independent organizations indicate that the municipally operated Seattle Transit System is being efficiently run.[28] In spite of adverse operating terrain, Seattle has one of the few systems with an over-all operating speed of over 11 mph. The fare structure of 20 cents for a single ride, six tokens for $1, compares favorably with other large cities in spite of high labor costs and hilly terrain.

Declining patronage combined with steadily mounting operating expenses have forced fares on Seattle Transit to be increased from 10 cents during the war years to the present fare of 20 cents. The spread-out terrain of Seattle, which will be aggravated by new annexations of territory and the necessity for extension of transit facilities to additional suburban areas is also focusing attention on the desirability of adopting a zone fare system. It is argued that a zone-fare plan would tend to stimulate more short distance rides, which tend to be discouraged by a high flat-rate fare.

Although there is no assurance that reduced fares during slack periods will guarantee increased patronage, it might be well to experiment with reduced fares during nonpeak hours of the day or free rides during evening-shopping nights as a means of stimulating use of public transportation.

Conclusions and Proposed Research

An analysis of business trends in metropolitan Seattle indicates that the relative importance of the central business district as compared with suburban centers has declined. It is apparent that suburban areas and fringe areas surrounding the downtown district are securing the greatest percentage of new business and new commercial construction resulting from the growth of the metropolitan area. While as a whole the central business district has not declined in the amount of business being handled, its *relative* importance has decreased. Although recent statistics are not available in many fields, it is apparent that the rapid development of suburban centers has continued since the last census.

One of the factors contributing to the growth of suburban shopping centers in the area has been increasing parking and traffic congestion in the central business district. There has been a substantial reduction in the number of parking spaces available within the confines of the downtown area within the last 5 yr. However, downtown-parking difficulty is only one factor contributing to the growth of suburban centers. The relatively large population increases enjoyed by outlying suburban areas, high land values in the central business district, evening shopping in suburban centers, lack of adequate public transportation between downtown and new suburban districts, and the building of new, planned shopping centers have all contributed to decentralization. However, without a comprehensive attitude study it is difficult to determine the relative importance of parking on the development of suburban centers.

PROPOSED ATTITUDE STUDY

Procedures Followed in Pilot Study

In the spring of 1952 a pilot attitude study was conducted by members of the project director's marketing research class at the university to determine factors influencing district shopping preferences and the relative importance of parking in determining preferences. After building and testing a preliminary ques-

[28] W. C. GILMAN COMPANY, *Seattle Transit System, General Report*, December 21, 1951, page 41.

tionnaire, students made approximately 180 interviews in a limited area of northeast Seattle.

While the sample used in the test investigation is somewhat small to be statistically reliable and interviewing was confined to one geographic area of the city, a number of tentative generalizations may be drawn. These generalizations should be verified in a larger, more representative sample of Seattle residents. A copy of the questionnaire used appears in the appendix.

Results of Pilot Study

Reasons for Preferring Shopping District. Respondents were asked in what shopping center they did most of their shopping for items except groceries. Because of the limited geographic area covered, the district preferences were not significant, but the reasons for shopping in suburban areas or in the central business district are of value.

The most-important reason given for preferring the downtown shopping center was "larger selection, more stores." The breakdown of retail sales for the 1939 and 1948 Census of Business tends to bear this out, as the central business district was relatively strongest in the shopping goods categories, particularly clothing and general merchandise. Other important reasons given for patronizing the downtown area, in their order of importance include: "Convenience to work," "better public transportation," "availability of charge-accounts," and "lower prices."

On the other hand, the most-important reasons for preferring suburban shopping centers were "convenience to home" and "larger selections of merchandise than smaller centers." "Less congestion" and "better parking facilities" were factors of lesser importance.

The most-important reasons given for preferring both downtown and suburban shopping centers suggest that factors other than parking and congestion are important to most shoppers when selecting a shopping center for items other than conveniences.

Types of Merchandise Bought or Services Used on Last Trip. A comparison of the types of merchandise which were bought or services used on shoppers' last trips to the central business district and to a suburban shopping center shows important differences. On last trips to suburban centers, the largest percentage of shoppers purchased convenience items, such as groceries, bakery products, or drugs. A relatively large percentage of shoppers purchased children's clothing or visited a bank. Table 41 indicates the complete picture.

On their last trip to the central business district, the largest percentage of shoppers purchased women's clothing. Other categories of merchandise purchased by a relatively large percentage of shoppers were men's and children's clothing. While downtown a surprisingly large percentage of shoppers bought grocery and bakery products. The importance of services is indicated by the large percentage visiting banks, restaurants, doctors, and theaters.

Means of Transportation Used. On their last trip to a suburban center, 58 percent of the respondents used automobiles, 18 percent public transportation, and 24 percent walked. On their last trip downtown, however, 40 percent used automobiles and 60 percent public transportation. The percentages using public transportation undoubtedly are higher than for the entire city, as the area in which interviewing took place enjoys better-than-average public transportation to downtown as well as to adjacent suburban centers.

TABLE 41

TYPES OF MERCHANDISE PURCHASED OR SERVICES USED ON LAST TRIP TO SHOPPING CENTER[a]

	Central Business District	Suburban Center
Merchandise	%	%
Appliances	3.8	2.4
Clothing (children's)	11.2	21.3
Clothing (men's)	13.5	9.8
Clothing (women's)	33.6	14.6
Drugs	10.7	29.3
Furniture	4.5	3.7
Groceries & bakery goods	16.3	43.4
Hardware	1.7	7.3
Shoes (children's)	6.2	6.1
Shoes (men's)	13.5	1.2
Shoes (women's)	8.4	3.7
Toys	2.8	4.9
Yardage	14.6	6.7
Other	21.9	28.7
Services		
Bank	9.0	23.2
Restaurant	9.5	7.2
Medical service	9.5	4.9
Theater	3.9	6.7

SOURCE: Attitude Study, Northeast Seattle, Spring, 1952.
[a] Many respondents mentioned more than one item.

Parking in Central Business District. Of those driving to the central business district on their last visit, nearly 61 percent paid to park in a lot or garage. In addition, 20 percent used curb facilities, 8 percent free facilities provided by merchants, while the remaining 11 percent just cruised or didn't remember.

It is of interest to note that 53 percent of those interviewed preferred using public transportation when going downtown, 40 percent an automobile, and 8 percent were undecided. The percentage preferring public transportation, however, may have been biased upward by

better-than-average transit service from the area surveyed.

Family Characteristics Influencing District Preferences. Cross classification of district preferences for shopping with family characteristics indicates several tendencies worthy of verification in a more-comprehensive survey. A higher percentage of families with children tend to prefer suburban areas than do families with no children or families containing two or more adults over 60 yr. of age.

When family income is taken into consideration, suburban shopping areas appear to be more popular with middle-income groups. A strong preference for the downtown area was indicated by the low-income families and a slightly higher than average preference for downtown by the high-income families.

Proposed Study

On the basis of the pilot study, it is recommended that a more-comprehensive attitude study be made in the Seattle area to determine the factors influencing shoppers' selections of districts. Results of the pilot survey and other evidence uncovered in this study indicate that parking and traffic congestion are not the only important factors influencing choice of districts.

It is suggested that the following factors be explored in a comprehensive attitude study: (1) districts preferred for shopping goods and services; (2) reasons for preferring the downtown area or suburban shopping centers; (3) means of transportation used to get to shopping centers; (4) parking facilities used downtown by automobile users; (5) preference for type of parking facilities, a) self-service or attendant service and b) lot or garage; (6) reaction to public transportation versus automobile to get downtown; and (7) social and economic factors influencing preference for downtown or suburban areas.

In order to get a representative sample of Seattle residents, it is recommended that 600 to 1,000 interviews be conducted in several census tracts in Seattle. Census tracts would be selected to give a representative picture of shopping habits in the metropolitan area. Tracts would be chosen on the basis of the following criteria: nearness to central business district and suburban areas, availability of public transportation, and economic status of families in area. A random selection of addresses would be made within the census tracts.

In the proposed attitude study, it is recommended that experienced interviewers be used. This would permit the use of more open-ended questions or depth interviewing than was possible in the pilot study with student interviewers.

Desirability of Conducting Attitude Study in Seattle

Seattle would be an excellent area in which to conduct an attitude study for the following reasons: (1) existence of several large suburban shopping centers which can actively compete with central business district on shopping items; (2) relatively high percentage of automobile ownership in area; (3) wide geographic area covered by city and its immediate trading area; and (4) existence of well-managed transit system.

In addition, it appears wise to determine whether factors influencing district shopping preferences differ in representative cities. This would be particularly true regarding shoppers' attitudes towards parking and traffic congestion.

PROPOSED STUDY OF PARKING AT PLANNED SHOPPING CENTERS

In addition to the recommended attitude study, it is suggested that more-comprehensive data be secured on parking habits and parking requirements at the new, planned suburban shopping centers. Data secured by studies of parking habits at planned shopping centers, such as Seattle's Northgate, regarding peak parking accumulation, turnover, average car occupancy, and average purchases per vehicle, would be useful in the determination of parking requirements of new, planned centers. A more-thorough evaluation of methods of determining the parking requirements of planned centers would be desirable as well.

Acknowledgments

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APPENDIX

BREAKDOWN OF RETAIL SALES CLASSIFICATION GROUPS USED IN CENSUS OF BUSINESS

Food Group
- Grocery stores (with or without fresh meats)
- Meat markets
- Fish (sea food) markets
- Fruit stores, vegetable markets
- Candy, nut, confectionery stores
- Dairy products stores
- Milk dealers
- Bakery products stores
- Egg, poultry dealers
- Delicatessen stores
- Other food stores (specialties)

Eating and Drinking Places
- Restaurants, cafeterias
- Caterers
- Lunch counters, refreshment stands
- Drinking places (beer, ale, etc)

General Merchandise and General Store
- General stores (usually rural)
- Department stores
- Dry goods
- Variety stores

Apparel Group
- Men's, boys' clothing stores
- Men's, boys' furnishing stores
- Family clothing stores
- Women's ready-to-wear stores
- Millinery stores
- Hosiery stores
- Corset, lingerie stores
- Apparel accessory, specialty stores
- Shoe stores
- Custom tailors
- Furriers and fur shops
- Children's and infants' wear stores
- Other apparel stores (specialties)

Furniture, Furnishings and Appliance Group
- Furniture stores
- Floor covering stores
- Drapery, curtain, upholstery stores
- China, glassware, metalware stores
- Antique stores
- Other home furnishings stores
- Household appliance stores
- Radio stores

Automotive Group
- Motor vehicle (new and used) dealers
- Motor vehicle (used) dealers
- Tire, battery, accessory dealers
- Motorcycle dealers
- Aircraft dealers
- Boat dealers
- Other automotive dealers (trailers, etc.)

Gasoline Service Stations
- Stations primarily engaged in selling gas, oil and lubricating oils

Lumber, Building, Hardware Group
- Lumber yards
- Building materials dealers
- Paint, glass, wallpaper stores
- Heating and plumbing equipment stores
- Electrical supply dealers
- Hardware stores
- Farm-equipment dealers

Drug Stores and Proprietary Stores
- Drug stores
- Proprietary stores

Other Retail Stores
- Liquor stores
- Second-hand stores
- Fuel dealers, except fuel oil
- Fuel oil dealers
- Ice dealers
- Hay, grain, feed stores
- Farm, garden supply stores
- Jewelry stores
- Book stores
- Stationery stores
- Sporting goods stores
- Bicycle stores
- Florists
- Cigar stores and stands
- News dealers, newsstands
- Gift, novelty, souvenir stores
- Music stores
- Luggage, leather goods stores
- Optical goods stores
- Camera, photographic supply stores
- Office, store machine and equipment dealers
- All other retail stores

QUESTIONNAIRE

UNIVERSITY OF WASHINGTON M. A. E.
MARKETING ANALYSIS 1 Call__ __ __
PARKING SURVEY 2 Call__ __ __

Address _____

I. *District preference*

1. In what shopping center(s) do you or members of your family do most of your shopping for items other than groceries? (Rank 1, 2, 3)
   ___Cent. Bus. Dist. ___Northgate
   ___Ballard ___Roosevelt
   ___Broadway ___University
   ___Lake City ___Other _____
2. Why is most of your shopping done in this district?
   ___Better quality merchandise ___Larger selection—more stores
   ___Convenient to home ___Less congestion
   ___Convenient to work ___Better parking facilities
   ___Credit—charge accounts ___Better public transportation
   ___Delivery service ___Stores in smaller area
   ___Friendship
   ___Lower prices
   Other ___ _____

II. *Last trip—Suburban center*

1. When did you last visit the _____ shopping center? (Preferred suburban shopping center indicated in Question I, 1)
   ___Within the last week ___Over 1 month ago
   ___Over 1 week ago, but less than 1 month ___Don't remember
   ___Doesn't shop in suburban centers
2. Which of the following types of merchandise were bought or services used on your last trip? (Use card)
   ___Appliances ___Shoes (Men's)
   ___Clothing (Children's) ___Shoes (Women's)
   ___Clothing (Men's) ___Toys
   ___Clothing (Women's) ___Yardage
   ___Drugs ___Bank
   ___Furniture ___Restaurant
   ___Groceries & bakery goods ___Medical Service
   ___Hardware ___Theater
   ___Shoes (Children's) ___Others _____
3. What means of transportation did you use on your last trip?
   ___Own car ___Walked
   ___Friend's car ___Other (specify) ___
   ___Public transportation ___Don't remember
4. (a) *If car used.* Where was it parked?
   ___Curb, at meter ___Paid garage
   ___Curb, no meter ___Free parking area (specify) _____
   ___Paid parking lot ___Other (specify) _____
   ___Don't remember
   (b) Why did you park there?_____
   _____
   (c) How long were you parked there?_____
5. (a) *If car not used on last trip.* Did you have the use of a car for shopping on your last trip?
   Yes___ No___
   (b) *If yes,* why didn't you drive on your last trip?
   _____

QUESTIONNAIRE (*Concluded*)

III. *Central Business District*

1. When did you last shop in the Central Business District?
   ___Within the last week ___Over 1 month ago
   ___Over 1 week, but less than 1 month ___Don't remember
   ___Doesn't shop in Cent. Bus. Dist.
2. Which of the following types of merchandise were bought or services used on your last trip? (Use card)
   ___Appliances ___Shoes (Men's)
   ___Clothing (Children's) ___Shoes (Women's)
   ___Clothing (Men's) ___Toys
   ___Clothing (Women's) ___Yardage
   ___Drugs ___Bank
   ___Furniture ___Restaurant
   ___Groceries & bakery goods ___Medical Service
   ___Hardware ___Theater
   ___Shoes (Children's) ___Others:_____
3. What means of transportation did you use on your last trip?
   ___Own car ___Walked
   ___Friend's car ___Other (specify) _____
   ___Bus ___Don't remember
4. a. *If car used.* Where was it parked?
   ___Curb, at meter ___Paid garage
   ___Curb, no meter ___Free parking area (specify) _____
   ___Paid parking lot ___Other (specify) _____
   b. Why did you park there?_____
   c. How long were you parked?_____
5. *If car not used on last trip:*
   a. Did you have the use of a car for shopping on your last trip? Yes___ No___
   b. If yes, why didn't you drive on your last trip?
   _____
   _____
6. (a) At present do you prefer to go downtown using public transportation or your own car?
   Car___ Public trans.___ Undecided___
   (b) *If a preference,* why?_____
   _____
7. If more parking facilities were available downtown would you visit the downtown area more often?
   Yes___ No___ DK___
8. Comments_____
   _____

IV. *Classification Section*

1. Sex of respondent M___ F___
2. Number of persons in household:

Age group	Male	Female
5 or under	_____	_____
6–13	_____	_____
14–20	_____	_____
21–59	_____	_____
60 or over	_____	_____

3. If married couple, is the wife working? Yes___ No___
4. Possession of family cars ___ ___ ___ ___
   None 1 2 3
5. For classification purposes only, indicate by number the broad group representing total YEARLY income of all members of family in household. (Living at home—Use card.)
   I—Under $1,000 VII—$6,000 to $6,999
   II—$1,000 to $1,999 VIII—$7,000 to $7,999
   III—$2,000 to $2,999 IX—$8,000 to $8,999
   IV—$3,000 to $3,999 X—$9,000 to $9,999
   V—$4,000 to $4,999 XI—$10,000 or over
   VI—$5,000 to $5,999 —N. I.

Interviewer_____ Date_____