4-1-1976

The Office Industry: Pattern of Distribution in Omaha

Harold Eugene Hornbeck
University of Nebraska at Omaha

THE OFFICE INDUSTRY: PATTERN OF DISTRIBUTION IN OMAHA

A Thesis

Presented to the

Department of Geography/Geology

and the

Faculty of the College of Graduate

Studies and Research

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

University of Nebraska at Omaha

by

Harold Eugene Hornbeck

April 1976

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Thesis Committee	Name	Department
Harold J Rytalewicz		Geog. Geol
Robert L McGhee		Urban Studies
Charles L Billerbeck		Geog-Geol

Harold J Rytalewicz
Chairman

3 June 1976
Date

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION TO OMAHA'S OFFICE INDUSTRY

Office Industry History

It is a matter of common observation that the construction of office buildings in Omaha has not been uniform in either size or location. These areal variations are constantly changing. An understanding of these variations and their change is very important to the study of Omaha's office geography in particular and the country's office industry in general. This unique phase of the country's urban geography is certainly worth a good deal more public attention and study than it has been accorded in the past.

Offices, or places where written information is processed and the basis for decisions is prepared, in one form or another have existed since the invention of writing. Office evolution has coincided somewhat with the emergence of cities. However, for more than 5,000 years offices were rather inconspicuous places, tucked away in buildings that were primarily ceremonial, commercial or residential in purpose. An identifiable "office industry" which employed a substantial number of specialized workers, occupied buildings of its own, and had its own managers, did not emerge in the United States until after 1880.

This was in part a response to the increasing complexity and specialization of a rapidly expanding economy (Armstrong, 1972).

Prior to the Civil War, businesses were small and tended to be oriented toward the local market (Armstrong, 1972). This smallness fostered the concept of a proprietor keeping all his records either in his head or on scraps of paper in his "back pocket." As business grew so did the need for additional non-production help and the "office" evolved in both size and stature. A chronology of the major technological advances that affected office development is shown in Table 1.

Stenography was a major invention in the communication process while telephones, typewriters and business machines presented the occasion for huge amounts of information to be transmitted within and between offices. The use of steel frame office buildings (skyscrapers) with mass vertical transportation (elevators) gave rise to office concentration, which produced agglomeration effects with the economies attendant upon dense office concentrations (Armstrong, 1972).

The advent of the electric trolley car enabled the workers to "commute" from the suburbs to "office clusters," hence, growth of the office industry was underway. There were, of course, major improvements in the management of businesses as the non-productive employees outgrew the "back pocket." A major part of this growth began in the central business districts of the cities involved (Armstrong, 1972).

The 1950's was a period of widespread use of tabulating, billing, and addressing machinery which has evolved into elec-

TABLE 1

SELECTED TECHNOLOGY ADVANCES
AFFECTING OFFICE DEVELOPMENT

Date	Technology
1833	Electromagnetic telegraph (F. Gauss and W. Weber)
1834	Electric motor (M. H. von Jacobi)
1837	Stenography (Pitman)
1854	Hydraulic passenger elevator (E. G. Otis)
1866	First successful transatlantic telegraph cable (?)
1874	Commercial adaption of the typewriter (Remington)
1876	Telephone (A. G. Bell)
1878	First commercial telephone switchboard (New Haven)
1879	Electric lamp (T. A. Edison)
1881	First commercial electric power plant (Pearl St., New York City)
1884	Steel frame building (Home Insurance Co. building in Chicago, ten floors, by William Le Baron Jenney)
1887	First successful electric street railway (F. J. Sprague)
1887	First electric elevator
1888	Stenography (Gregg)
1894	Commercial adaption of the mechanical calculator (W. S. Burroughs)
1954	Programmed electronic computer first appeared on commercial market (Aiken, USA; Zuse, Germany)

Source: Armstrong, 1972; Gottman, 1966.

tronic data processing equipment. In 1955 there were 214 electronic computers in use in the United States. In 1960 there were 4,100; in 1965 there were 25,000; in 1970 there were estimated to be 83,200; and the 1971 estimate was for 107,100 (Armstrong, 1972).

This developing generation of office oriented, manager-controlled businesses multiplied quickly and grew in importance. As the office bound manager-technicians' role was enhanced, he continued to prove capable of making decisions that were shaping the growth of a firm as well as helping to form national economic and political policies. The office industry has grown in importance to where it has a greater than apparent impact on land use, and the labor market, as well as causing a boom in the construction industry (Armstrong, 1972).

The office building boom presently underway nationally had its beginning in the early 1950's. Prior to that time, as much as 20 years earlier, office building construction was almost non-existant in the United States. During that period a significant backlog of demand for office space built up, of which a large part was for prestige office space (Smith, 1970).

By the end of World War II all but the most marginal office space was 100 percent occupied. Relief from the demand backlog was not immediate following World War II. Potential office building developers feared an economic recession (post war let down) similar to the recession following World War I. In addition, the federal government had imposed restrictions on the use of certain building materials that lasted until

1952. Additionally, there were the demands of the Korean War. Post World War II residential construction was also booming and was competing with office buildings for mortgage money. Nevertheless, office building construction started to increase, slowly at first, and during the 1945 to 1950 period it gathered strength and was ready to "boom" when the government restrictions on building materials were finally lifted in 1952. Investment in office buildings more than doubled during the next ten years. Typically, however, new office buildings were not started until after major remodeling of existing buildings was nearly completed. Demolition of existing structures was considered to have a minor effect on the existing inventory of office space (Smith, 1970).

While the nation as a whole has experienced a growing office building boom since 1952, it varied considerably in the various cities. As might be expected, downtown and suburban development occurred at different times with the multi-nucleated cities, such as Atlanta experiencing suburban office development sooner than cities like Chicago with a strong central focus (Smith, 1970).

Between 1960 and 1972, for example, both Cleveland and Chicago CBD's experienced office space growth of 64% while the rest of their SMSA's office space grew only 36%. Boston, whose central focus is not as strong as that of Chicago or Cleveland, experienced a growth of office space in its CBD of only 55% and of 45% in the rest of its SMSA. New York City and San Francisco were even, i.e., 50% in the CBD and the rest

of the SMSA. On the other hand, Atlanta, a multinucleated city, experienced only a 35% growth of its CBD while the remainder of its SMSA had a 65% growth rate. The Dallas experience was 38% growth in the CBD and 62% growth in the rest of the SMSA. A final example being Minneapolis-St. Paul with a CBD growth rate of 29% and the remainder of the SMSA's growth at 71% (Manners, 1974). Omaha will be brought into focus in Chapter III during the discussion of its office building site patterns.

Justification for Omaha Case Study

It has been said by Armstrong and others that despite an obvious and growing importance of office buildings and the jobs performed in them upon the urban economy, there most likely has been more research on the planting of the peanut, or the marketing of toothbrushes, than on the location of and the market for office buildings. Pioneering work by Murray Haig, Major Economic Factors in Metropolitan Growth and Arrangement, published in 1927, did touch on office location, but this work was not developed further until late in the 1950's. During the 1950's and the 1960's research efforts were few in number. Finally in 1972 another pioneering work was published, The Office Industry, by Regina Belz Armstrong for the Regional Plan Association of New York (Armstrong, 1972; Manners, 1974).

There appears to be a need for further study with Omaha as a case example. The Omaha case study should synthesize survey data of Omaha's office functions in selected

office buildings, and subsequently outline their patterns of distribution. Attending this effort is the necessity to offer definitions that evolved from working hypotheses. These terms being: (1) offices, (2) office building, (3) office park, (4) office industry, and (5) office function. Furthermore, an indication of the problems encountered, and their solutions, in the collection of data are worthy of mention in hopes they can serve as an aid to future studies. Term definitions and data collection problem solutions are both discussed in detail in Chapter II, Procedures Used in Surveying Omaha's Office Industry.

Study Objective

The objective of this study is to identify the distribution of selected office buildings and their tenant functions in the city of Omaha, thereby furthering the understanding of Omaha's "office industry." Concomitantly a few tentative working definitions and data sources are offered for use in this and in future studies of offices.

CHAPTER II

PROCEDURES USED IN SURVEYING OMAHA'S OFFICE INDUSTRY

Survey Published Literature

The data being sought for this study was the number and location of selected office buildings in Omaha as well as the type of functions being operated within them. In order to obtain this data, it was necessary to have definitions for certain terms that were to be used in data compilations. There were also procedural problems requiring solutions, however, the term definition problem had to be resolved first.

Available published literature was surveyed for commonly accepted definitions of key terms considered vital to this study. Some of the major terms are: (1) office, (2) office building, (3) office park, (4) office industry, and (5) office function. The survey of geographic literature was not very productive. Other sources of information, to include the various government agencies in Omaha, were then researched. The thrust of this research was to gain additional knowledge from both their published and unpublished reports as well as from conversations with the agency employees. This additional research pointed to the requirement to develop working definitions for the planned field survey.

Working Definitions Developed

The following working definitions were developed and used in the field survey portion of the research for this thesis:

1. Office. An office is a place where information, the key product of the new economy, is processed, and where decisions shaping the economic and political climates are made. This will include the activities of the medical, legal and engineering professions. Excluded will be retail sales of articles or products of a tangible nature. This definition is a composite of an Armstrong, 1972 definition and one offered by Wilkins in 1948 in Mapping for Planning, Public Administration Service Publication Number 101.

The most common definition offered by other sources that were queried was "an office is a place where office functions are carried out," however, no definition was offered for "office function." This was considered non-acceptable. The primary sources queried, in addition to Armstrong, 1972, and Wilkins, 1948, were the Omaha City Building Permits and Inspection Department, the City Zoning Department, Omaha Indemnity Insurance Company (they use a physical description of the property not describe a function), the librarian at the Creighton University Law Library (seeking a definition used by the courts), Omaha Chamber of Commerce, Gladstone Associates Market Analysis and Development Potential for Omaha, 1973, Larry Smith and Company, a Real Estate Consulting Company,

that compiled an extensive report for the federal government concerning Indianapolis commercial land use, and texts and articles published on the subject of offices and urban planning. A common practice for these various agencies and authors was to "write around" the definition and use vague expressions like those indicated above, when discussing an office. This reluctance to define the term is perhaps a partial response to the question of why the long void in writing about offices. The term still does not have a commonly accepted definition on which to base an article.

2. Office Building. A building constructed, or extensively modified to house offices. Multifunctional buildings, i.e., one-half office and one-half warehouse were excluded from those selected for survey. Shopping center buildings were considered multifunctional and also excluded. Additionally, a minimum size of 3,000 square feet as used by Gladstone Associates was adopted. This minimum size precludes the inclusion of houses that have been refronted to accommodate the owner's insurance or real estate office. It should be noted that the Dallas, Texas Chamber of Commerce set a minimum of 25,000 square feet of floor space to be qualified as an office building for its survey and their brochure expounding the results of this survey offered no reason for this minimum.

3. Office Park. An office park is an area established primarily to support two or more office buildings. The area must have easy highway access and ample free parking, retail

shopping, food and entertainment facilities, and public transportation that are convenient for the employees. These office users are primarily of the non-confrontation type such as an insurance corporation headquarters or other similar large corporation headquarters, i.e., oil companies, railroads, etc.

Office parks are a relatively new phenomenon and Atlanta with its over 40 office parks is often cited as an example. The latest office park being developed in Atlanta is the Perimeter Center, a 500 acre complex with 3.5 million square feet of office space. The first office park in Atlanta was developed in 1964 (Hartshorn, 1973). Here again the definition takes on the form of a cosmetic description with salient components still unidentified. Omaha's Zoning Board does not have an office park code or definition as such, but tries to use its various commercial categories in various combinations to serve this undefined purpose.

4. Office Industry. Office industry is the total of the office effort in the area being considered. It requires space (office buildings) for executive offices, filing and clerical work, meetings, and the capability to export decisions to all affected personnel and institutions. The emergence of large corporations with their inherent complex business problems have provided the impetus for technological advances from shorthand to electronic computers. Consequently, an office industry has evolved and become commonplace in support of the economic and political decision makers.

5. Office Function. The administrative functions of typing, record keeping, reproduction, communication, and other miscellaneous related activities necessary to assist the professional and management officials in the performance of their duties. The utilization of electronic data processing equipment in all these functions is included.

Selection of Data and Variables

To satisfy the objective of this study, it was determined that six data variables would be required for each of the office buildings selected. These six variables being: (1) year building was built, (2) rentable square feet, (3) number of floors, (4) building site, (5) type of building occupant by function, and (6) a general measure of vacancy. By using the six variables it is then possible to: (1) determine the pattern of location and growth, (2) building construction trends, i.e., stacked or spread, (3) office function distribution, (4) a very general vacancy pattern, and (5) possibly identify some of the criteria used in site selection.

Since there is no universally accepted agency responsibility or procedural mechanism for collection of empirical data, it was necessary to "dig it out by hand and eye," which is to say to conduct a mini-census. Several limitations were encountered and these will be discussed in conjunction with the pertinent variable. However, before discussing the six variables about the office buildings and their tenants, the

procedure for selecting the buildings themselves should be established. The U.S. Census inventories many items, but office buildings and office floor space are not among them. This precludes inter-city comparisons. In some cities university and hospital space is recorded; elsewhere it is neglected. In some SMSA's there appears to be no reasonably complete set of data; Washington, D.C. and Detroit, Michigan fall into this category (Manners, 1974). Continuing research led to the various offices of the Omaha City Government that could possibly be interested in and have data concerning office building inventories, i.e., Building Permit and Inspection Department, the Planning Department, the Zoning Board, and the Tax Assessor. The search was fruitless. Numerous real estate offices were also contacted and either could not or would not release a list of office buildings. Finally, a list of office buildings was obtained from the Omaha Chamber of Commerce. This list, however, had certain limitations that were either accepted or modified. The minimum building square footage of 3,000, as used by Gladstone Associates in compiling the list for the Chamber of Commerce, was accepted and then the entire list was refined based on an actual survey of each site for a ground truth check of appropriateness. This left a list of 153 office buildings to represent a mini-census of selected office buildings in Omaha.

Procedures Used in Compiling Data

The data for the six variables must now be compiled for each building on the final list. Each of the variables presented a different set of obstacles during the collection of its data.

1. Date built. Three sources were necessary since no one source had all the necessary dates: (1) the City Building Permit and Inspection Department, (2) the building itself, i.e., corner stones, and (3) from building managers and maintenance engineers who had dated drawings. The date built criteria expanded beyond original construction date to include the date of extensive remodeling into an office building configuration. The city building permit records were a source of these data. Examples of extensive remodeling included would be the Union Pacific Building Annex, Mutual of Omaha's adding seven floors to a nine-floor building, or taking a part of the Connant Hotel and making it into a law office building and naming it "Empire State Building." Building construction dates were also provided by the Chamber of Commerce, but verification from one of the three sources listed above was desired. The Chamber of Commerce data was, however, found to be above 90 percent accurate and individual errors that were noted were something less than significant. The City Building Permit and Inspection Department does not maintain lists of buildings by a category or classification, just by address; hence, if you do not have the specific address used when

original construction was applied for, you will not be able to locate the building card to retrieve any data.

2. Office space (square footage). Sources used: (1) the Chamber of Commerce and (2) the building managers themselves. Neither City Building Permit and Inspection Department cards nor the County Tax Assessor records contain this type of data. This data is viewed by some building managers as highly confidential, consequently, there was a strong reliance on the Chamber of Commerce data.

3. Number of floors. This data was obtained from the City Building Permit and Inspection Department, the Chamber of Commerce files and the building managers. This data was thought to be suspect since there was no standard as to how to count floors, i.e., is the ground floor the first floor? Consequently, the data was verified by a personal ground truth survey as well as by the listings of occupants in the Omaha City Directory, 1975.

4. Building address. The most crucial piece of data collected was the address. All other data depended on site address accuracy. The Chamber of Commerce list would sometimes give only the street intersection, i.e., 16th and Harney for the Omaha Public Power District, yet to find it in the Omaha City Directory, 1975, or be able to locate the permit card in the City Building Permit and Inspection Department the exact street address, i.e., 1623 Harney is necessary. In case of an address change, i.e., 1621 to 1623, even though accepted by the Post Office, other agencies might or might not use the

change, you then apply your best judgement and search. This problem did not occur too frequently.

5. Occupant function. Omaha City Directory, 1975, was the only source available for this data. Office building occupant data was, in addition to name listing, classified into a function, i.e., H. G. Jones Company, grain broker. Further generalization of categories of the listed function groups was necessary to meaningfully plot their distribution. The following classification of office space user (occupant) was utilized:

Classification of Office Space Users

1. Real Estate/Finance/Insurance/Professional*
2. Transportation/Utilities/Communication**
3. Government
4. Medical Arts
5. Attorneys
6. Other corporate and miscellaneous

* Other than medical arts, attorneys

** Include computer services

6. Vacancy. This was probably the most difficult data to collect. Both the Chamber of Commerce and the building managers indicated this data was too confidential to release, i.e., your competition knows your vulnerability. The only known source remaining was the Omaha City Directory, 1975, and in this instance it is extremely marginal in value. In the Omaha City Directory's listing a room or a floor will be shown as vacant with no regard for its size. Hence, you have a

building with fourteen vacant rooms or three vacant floors. This data can be used only to point out the most general of trends such as floors vacant or rooms vacant, and the general area of the city where the "vacancy" occurs. However, these general vacancy ratios can be beneficial if used with caution.

Data Manipulations

The following data manipulations will serve as an aid in identifying the distribution of the selected office buildings and their tenant functions:

1. The office space expansion pattern needed the use of variable 1 (date built) and variable 4 (site).

2. To demonstrate growth rate, a line graph was developed by using variable 2 (square feet) and variable 1 (date built).

3. The office function distribution, variable 5 (type of occupant) and variable 4 (site) will be charted and discussed.

4. Office building construction trend, i.e., "stacked" or "spread" needs variable 2 (square feet) and variable 3 (number of floors). "Stacked" shall be used to mean anything over three floors high and the ground floor is number one.

5. To determine the vacancy pattern variable 6 (vacancy) as a ratio of rooms/floors vacant will be discussed.

Having developed the necessary working definitions, collected the data for the selected variables and employed the data manipulations just discussed, there remains only the task of presenting the results of this effort.

CHAPTER III

RESULTS OF OFFICE INDUSTRY SURVEY

Chronology and Pattern of Locational Growth

Prior to 1945 the Central Business District contained 88.53% of Omaha's office space. The remaining office space was in two other areas: (1) the Livestock Exchange Building had 6.65% and (2) the Mid-town area had the remaining 4.82%, see Table 2, 2a and 2b. Mid-town is a corridor along Dodge Street from 24th Street to 50th Street and between Chicago Street on the north to Dewey Street on the south. The major Mid-town buildings involved were the Woodman Of The World Annex, 1932, and a Mutual of Omaha Insurance Company building, 1940.

During the next ten years, 1945-1954, office building construction in Omaha was at a near standstill. The city's inventory of office space increased only 4.94% with almost 80% of that going into Mutual of Omaha's buildings in the Mid-town area. It must be remembered that during this period until 1952 there were serious federal restrictions on building materials (Smith, 1970). These restrictions were presumably to: (1) allocate shortages and (2) channel a major portion into building housing to alleviate an acute shortage built up during World War II.

The period 1955-1964 was the beginning of Omaha's current office building boom. The Omaha office building space inventory was increased by 21.46% of the pre-1945 level while the number of office buildings had more than doubled (from 34 in 1945 to 71 in 1974). The Central Business District experienced 50.41% of the construction during this period, with the Mid-town area following with 30.23%. The Indian Hills area was third with 11.46%, and the Western Boot area followed with 8.65%. The amount of construction in the other areas was less than 5% collectively. The Indian Hills area is a corridor along West Dodge Road and Indian Hills Drive from 83rd Street to 90th Street, bounded by California Street on the north and Douglas Street on the south. The Western Boot area is in western and southwestern Omaha and is outlined in Figure 1 and 2.

Office building construction continued to grow and explode into the 1965-1974 period by increasing the pre-1945 office building space level by 41.68%. This is nearly double the increase of the previous ten years. Like in the previous ten-year period, the Central Business District received a major proportion, 41.13%, of the amount constructed, however, the order of magnitude of growth in the other areas changed somewhat. The Western Boot area moved into second place with 19.63%, followed by Mid-America Plaza with 14.18% and the Indian Hills area having 12.44%. There was less than 10% increase in the remaining areas. Mid-America Plaza area is

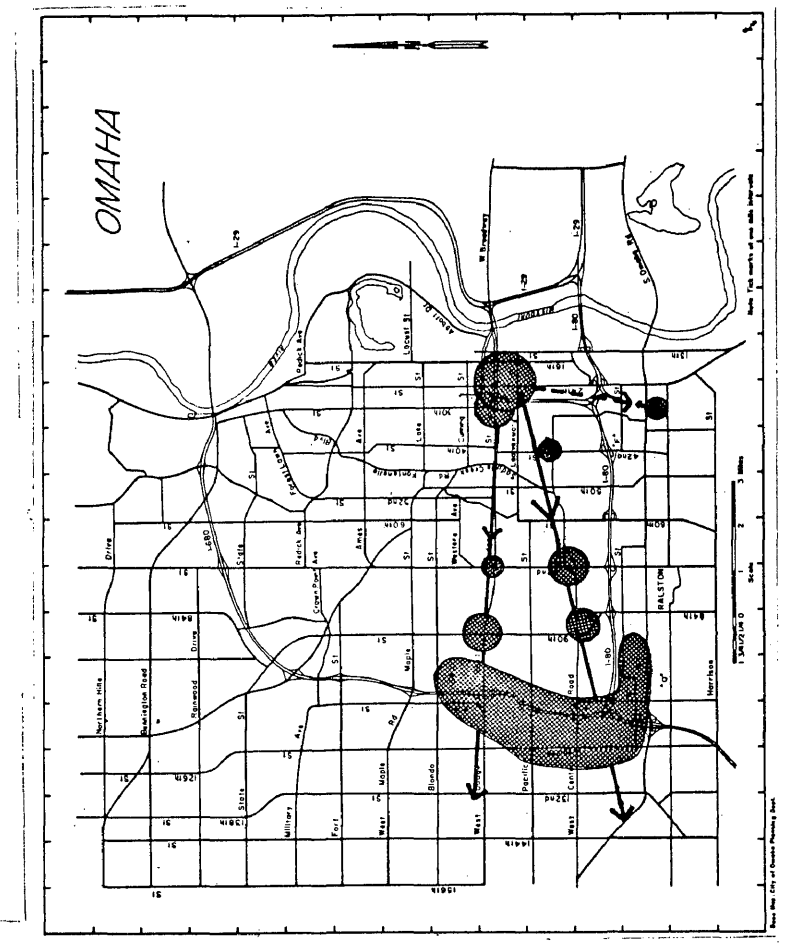

Figure 1 Office Space Expansion Pattern.
Based on field research of M.E. Hornbeck.

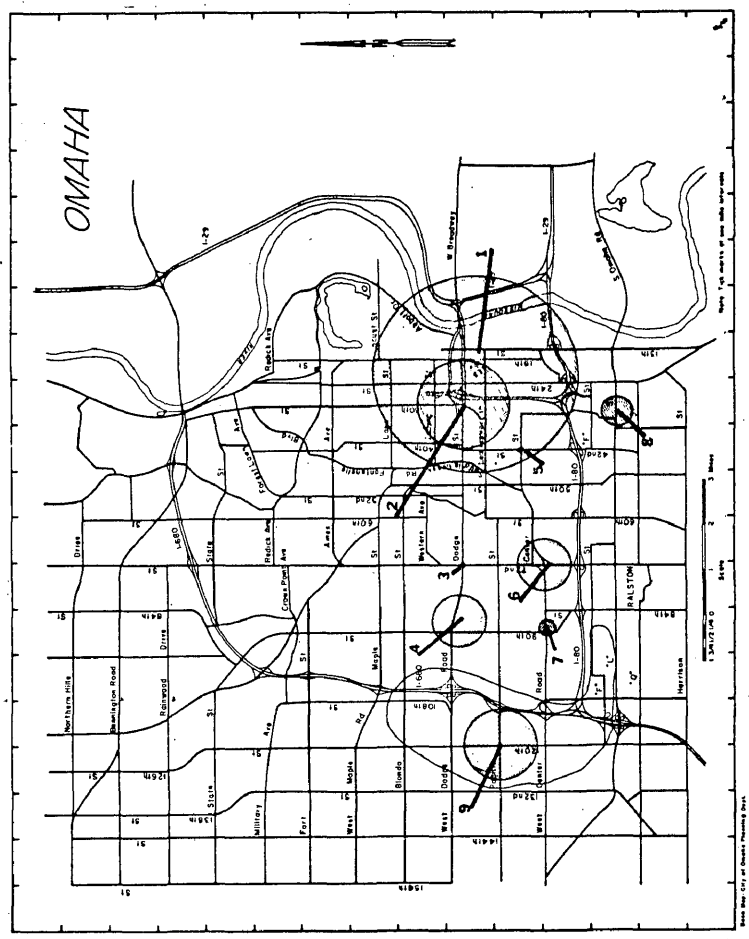

Figure 2 Office Building Areas of Concentration.

Based on field research of M.E. Hornbeck.

Area	No.	Area	No.	Area	No.
1 CBD	58	4 Indian Hills	8	7 Westgate	1
2 Midtown	15	5 Center	1	8 Livestock Ex.	2
3 Crossroads	1	6 Mid America	6	9 Western Bool	8

TABLE 2

OFFICE SPACE GROWTH BY LOCATION AND PERIOD
(Square Feet)

Location	Prior to 45	45-54	55-64	65-74	1975 Total
CBD	2,128,268	80,000	814,614	1,353,400	4,376,282
Mid-town	115,800	292,000	488,500	252,510	1,148,810
Crossroads	. .	. .	13,500	24,100	37,600
Indian Hills	. .	. .	185,200	390,568	575,768
Center	. .	. .	28,705	. .	28,705
Mid-America	. .	. .	12,790	444,716	457,506
Westgate	. .	. .	14,100	56,481	70,581
Livestock Ex.	160,000	. .	. .	. .	160,000
Western Boot	. .	. .	58,400	616,313	674,713
Total	2,404,068	372,000	1,615,809	3,138,088	7,529,965

Source: Field research by author to include Omaha Chamber of Commerce survey data, data from Omaha City Building Permit office and building owners and managers.

TABLE 2a

OFFICE SPACE GROWTH BY TEN-YEAR PERIOD
(Percentages)

Location	Prior to 45	45-54	55-64	65-74	1975 Ratio
CBD	88.53	21.50	50.41	43.13	58.12
Mid-town	4.82	78.50	30.23	8.05	15.26
Crossroads	. .	. .	0.83	0.77	0.50
Indian Hills	. .	. .	11.46	12.74	7.64
Center	. .	. .	1.78	. .	0.38
Mid-America	. .	. .	0.79	14.18	6.08
Westgate	. .	. .	0.88	1.80	0.94
Livestock Ex.	6.65	. .	. .	. .	2.12
Western Boot	. .	. .	3.62	19.63	8.96
Total	100.00	100.00	100.00	100.00	100.00

Source: Field research by author to include Omaha Chamber of Commerce data, data from Omaha City Building Permit office and building owners and managers.

TABLE 2b

OFFICE SPACE GROWTH BY LOCATION
(Percentages)

Location	Prior to 45	45-54	55-64	65-74	Total
CBD	48.63	1.82	18.61	30.94	100.00
Mid-town	10.07	25.42	42.53	21.98	100.00
Crossroads	. .	. .	35.90	64.10	100.00
Indian Hills	. .	. .	32.17	67.83	100.00
Center	. .	. .	100.00	. .	100.00
Mid-America	. .	. .	2.79	97.21	100.00
Westgate	. .	. .	19.97	80.03	100.00
Livestock Ex.	100.00	. .	. .	. .	100.00
Western Boot	. .	. .	8.65	91.35	100.00

Source: Field research by author to include Omaha Chamber of Commerce data, data from Omaha City Building Permit office and building owners and managers.

bounded by Center/West Center Road on the south and Dorcas Street on the north, 67th Street on the east and 75th Street on the west.

The proportions of office building space for each of the nine major office areas in Omaha today are shown in Figure 2. The major indication there being that Omaha still maintains a strong focus on the Central Business District (58.12% of the city's office building space). The other eight areas having shares from 15.26% to 0.38%, see Table 2.

Omaha's total office building space and office building population growth rates are shown in Table 3, and displayed in Figure 3 and 4. It should be pointed out that the growth rate data is displayed at five-year intervals to show the 1950-1954 decline and the only areas utilized were the Central Business District and the remainder of the city. This was considered the best method to determine whether Omaha had retained strong Central Business District influence or was becoming multi-nucleated like Los Angeles or Minneapolis-St. Paul. Omaha's Central Business District's increase was 43.86% of the city's total which closely parallels Houston's near balanced increase of 41% (Manners, 1974). Omaha is in a posture of experiencing growth that is both centralized and nucleated, and is approaching a near balance between these two structures.

Rate of increase both inside and outside the Central Business District began slowly in 1945 and continued slowly until the 1955-1959 period when it accelerated threefold inside the Central Business District and over tenfold outside

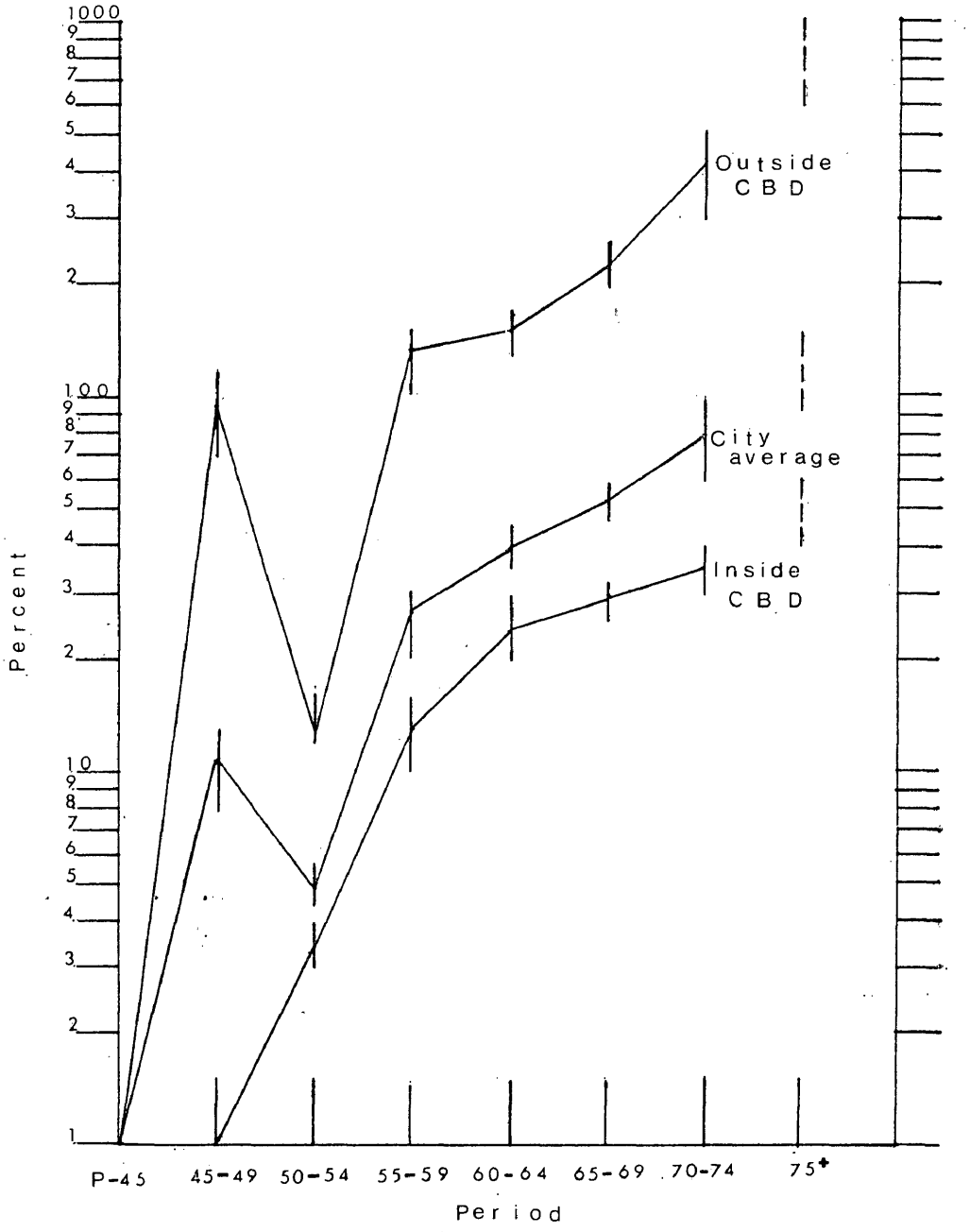

Figure 3. Office Building Space Growth Rate
Based on field research of H.E. Hornbeck.

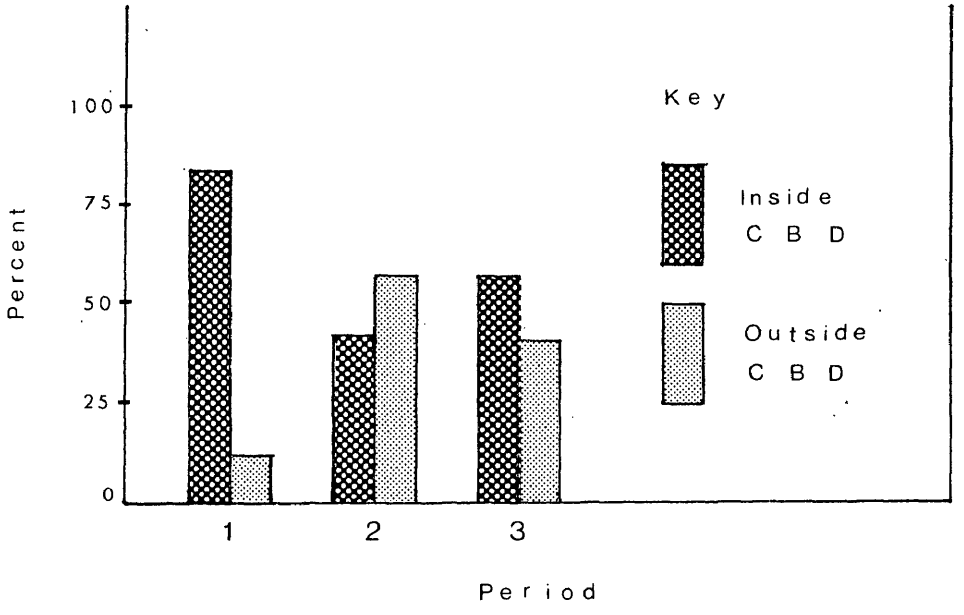

Figure 4. Office Space Growth Comparison

Based on field research of H. E. Hornbeck.

1-Percent of space, 1945: 2-Percent of total increase, 1945-1975: 3-Percent of space, 1975.

the Central Business District. This is evident in Table 3 when the number of square feet constructed is compared rather than a comparison of the percentage data.

In 1945 the Central Business District proportion of the office space was at 88.53% and the remainder of the city's proportion was 11.47% (Figure 4 and Table 3). The Central Business District received 43.86% of the office space constructed between 1945 and 1974, while the remainder of the city enjoyed an increase of 56.14%. Today Omaha's Central Business District has 58.12% of the city's office space and the remainder of the city has 41.88%. During the 30-year period covered by this thesis the average annual rate of growth for the Central Business District was 3.52% while the average annual rate of growth for the remainder of the city was 34.78%. The city's average annual rate of growth was 7.11%.

Construction trends in buildings to house this growth in office space will be discussed later in this chapter, however, it should be noted now that the number of office buildings in Omaha grew from 34 in 1945 to 153 today and there are plans for more to be constructed.

Now that the various areas of office buildings have been identified and growth in office space has been discussed, there remains a question of what functions are carried out in these buildings and what is their distribution.

TABLE 3

OFFICE BUILDING SPACE GROWTH RATE
(Inside and Outside CBD)

Period	Inside CBD		Outside CBD	
	Sq. Ft. Constructed	% of Inc. in Base	Sq. Ft. Constructed	% of Inc. in Base
Base (Prior to 45)	2,128,268	. .	275,800	. .
45-49	. .	. .	257,000	93.18
50-54	80,000	3.76	35,000	12.69
55-59	294,200	13.82	385,000	135.59
60-64	520,414	24.45	416,195	150.91
65-69	605,600	28.45	620,466	224.97
70-74	747,800	35.14	1,164,222	422.12
Total Increase	2,248,014	105.62*	2,877,883	1,043.46**

* 3.52% increase per year ** 34.78% increase per year

Recap

	Base	Inc.	1975
Inside CBD	2,128,268	2,248,014*	4,376,282
Outside CBD	275,800	2,877,883**	3,153,683

* 43.86% of the total city increase

** 56.14% of the total city increase

Note: This reflects an overall annual growth rate of 7.11%.

Source: Field research data by author.

Distribution of Office Function Groups

Function groupings will be examined from two perspectives, first--areal composition, Table 4 and Figures 5 through 13, and then distribution by function group, Table 5 and Figures 14 through 19.

As might be expected the Central Business District has a fairly even distribution of all functions, Table 4 and Figure 5. Function 1 (Real Estate, Finance, Insurance and Professional except Medical Arts and Attorneys) and Function 6 (Other Corporate and Miscellaneous) each comprise 23% of the function in the area. Other functions proportion range from 17% down to 9%. This distribution tends to indicate the Central Business District versatility rather than being a strong focal point for a single function grouping such as Real Estate, Insurance, Finance and Professional except Medical Arts and Attorneys. A seeming balance of functions will be seriously challenged when the concentration of each function in the Central Business District is considered later in the discussion.

The function group distribution in Mid-town is somewhat different than in the Central Business District, Table 4 and Figure 6. In Mid-town Function 1 and 6 account for nearly 79% of the area's activity with Function 4 and 5 totaling 18% thus leaving Function 2 at 3% and Function 3 not significantly represented.

TABLE 4

FUNCTION COMPOSITION BY AREA
(Percentages)

Area	Function*						
	1	2	3	4	5	6	Total
CBD	23	14	14	9	17	23	100
Mid-town	44	3	. .	12	6	35	100
Crossroads	40	. .	. .	. .	. .	60	100
Indian Hills	45	. .	. .	23	9	23	100
Center	60	. .	. .	20	. .	20	100
Mid-America	50	. .	. .	11	11	28	100
Westgate	40	. .	. .	30	. .	30	100
Livestock Ex.	20	20	. .	. .	. .	60	100
Western Boot	41	5	3	8	5	38	100

* Function codes are:

1. Real Estate/Finance/Insurance/Professional
2. Transportation/Utilities/Communication**
3. Government
4. Medical Arts
5. Attorneys
6. Other corporate and miscellaneous

** Includes data processing services

Source: Field research by author.

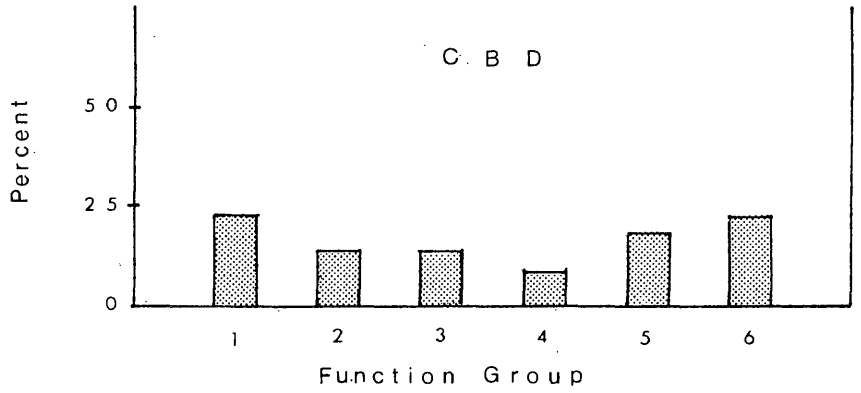

Figure 5. Area 1 Function Group Composition
Based on field research of H. E. Hornbeck.
1- RE, Fin, Ins, Prof: 2- Trans, Util, Commo: 3- Gov't:
4- Med Art: 5- Atty: 6- Other Corp.

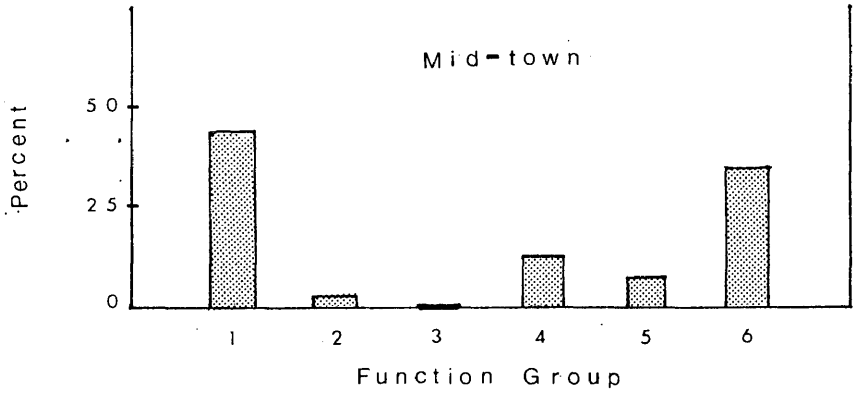

Figure 6. Area 2 Function Group Composition
Based on field research of H. E. Hornbeck.
1- RE. Fin, Prof, Ins: 2- Trans, Util, Commo: 3- Gov't:
4- Med Art: 5- Atty: 6- Other Corp.

There are only two function groups identified in the Crossroads area, Table 4 and Figure 7, and these were Function Group 6 at a 40% level on concentration and Function Group 1 at a 40% level on concentration. Also this is the only area with a void in four function groups. Since the Crossroads ranks eighth on a scale of nine in total office space, this concentration is somewhat over emphasized statistically.

The Indian Hills area, Table 4 and Figure 8, however, has a void in only two of the function groups (2 and 3), while Function Group 1 is at 45% and Function Group 4 and 6 are each at 23%. The remaining 9% is in Function Group 4.

Representation of only a half of the function groups is the case at the Center Area, Table 4 and Figure 9. Those represented are Function Group 1 at 60%, Function Group 4 at 20%, and Function Group 6 at 20%. The Center is the smallest area of the areas used in this study.

One of the larger areas (fourth) used in this study is the Mid-America Plaza Area. In this area, Table 4 and Figure 10, there are only two function groups not represented, numbers two and three. The representative proportion of the others are Function Group 1 at 50%, Function Groups 4 and 5 each at 11%, and Function Group 6 at 28%.

Westgate is another of the small areas, seventh, and like the Center only three function groups are represented, Table 4 and Figure 11. The Functions Groups being represented are 1 at 40% and 4 and 6 each at 30%.

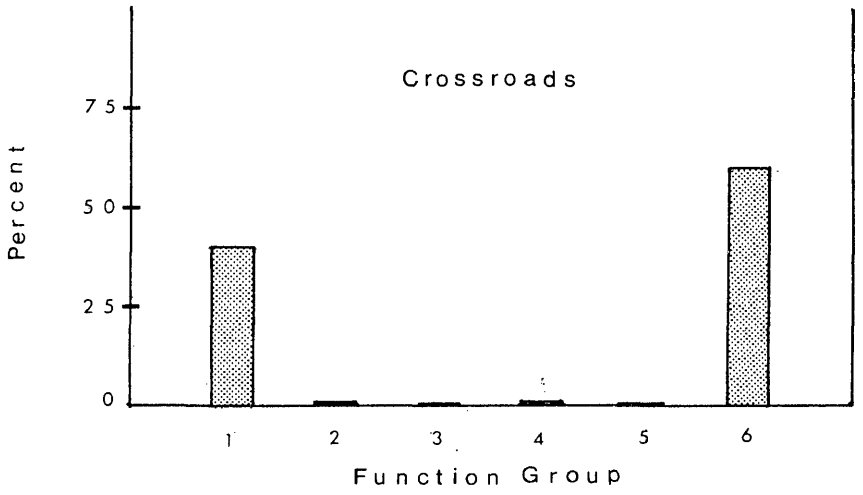

Figure 7. Area 3 Function Group Composition
Based on field research of H. E. Hornbeck.
1-RE, Fin, Ins, Prof: 2-Trans, Util, Commo: 3-Gov't:
4-Med Art: 5-Atty: 6-Other Corp.

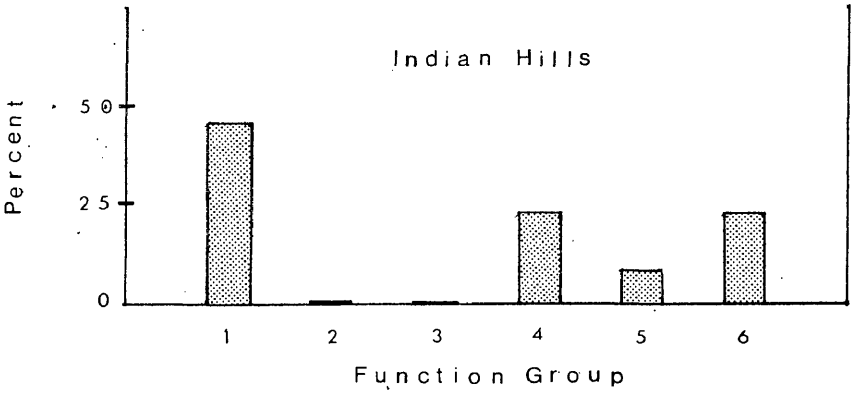

Figure 8. Area 4 Function Group Composition
Based on field research of H. E. Hornbeck.
1-RE, Fin, Ins Prof: 2-Trans, Util, Commo: 3-Gov't:
4-Med Art: 5-Atty: 6-Other Corp.

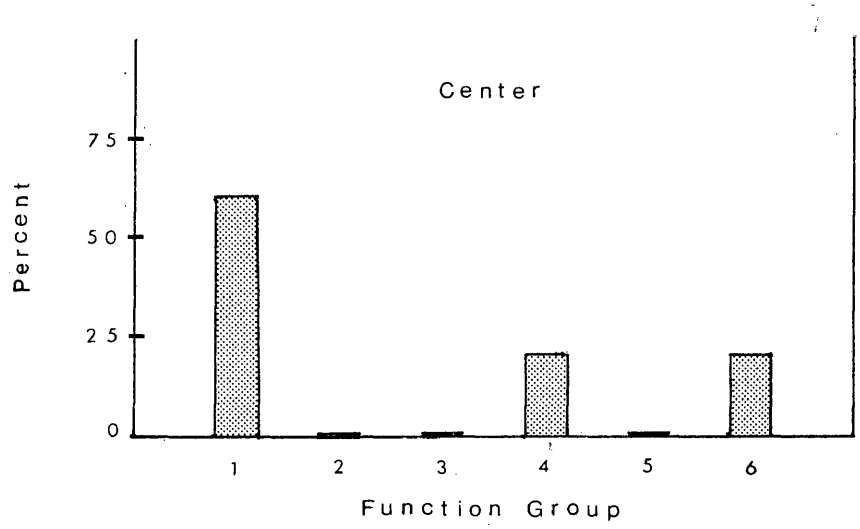

Figure 9. Area 5 Function Group Composition
Based on field research of H. E. Hornbeck.
1- RE, Fin, Ins, Prof: 2- Trans, Util, Commo: 3- Gov't:
4- Med Art: 5- Atty: 6- Other Corp.

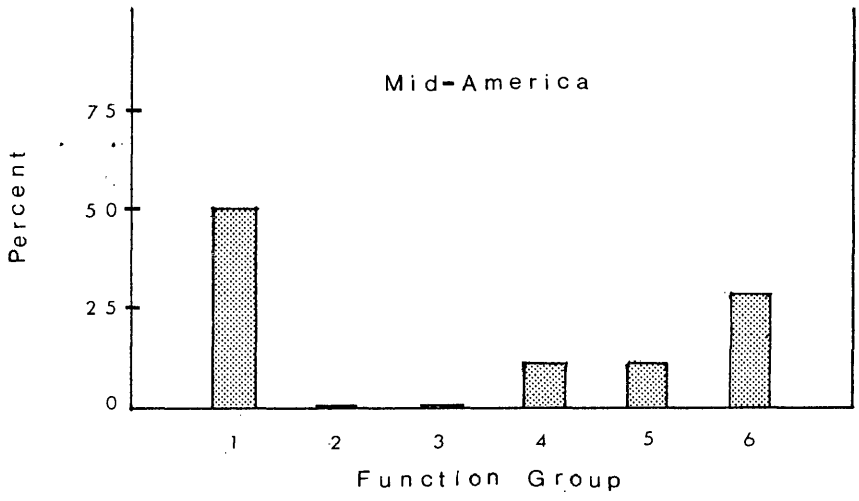

Figure 10. Area 6 Function Group Composition
Based on field research of H. E. Hornbeck.
1- RE, Fin, Ins, Prof: 2- Trans, Util, Commo: 3- Gov't:
4- Med Art: 5- Atty: 6- Other Corp.

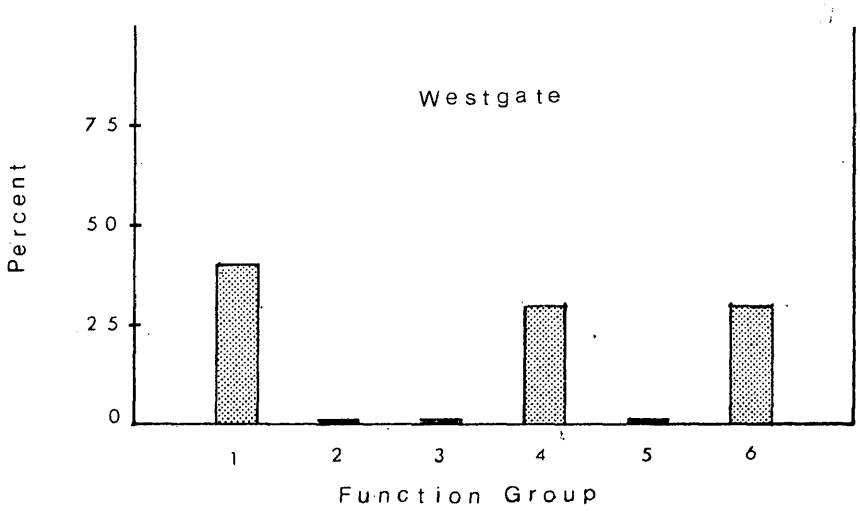

Figure 11. Area 7 Function Group Composition
Based on field research of H. E. Hornbeck.
1-R E, Fin, Ins, Prof: 2-Trans, Util, Commo: 3- Gov't:
4-Med Art: 5- Atty: 6- Other Corp.

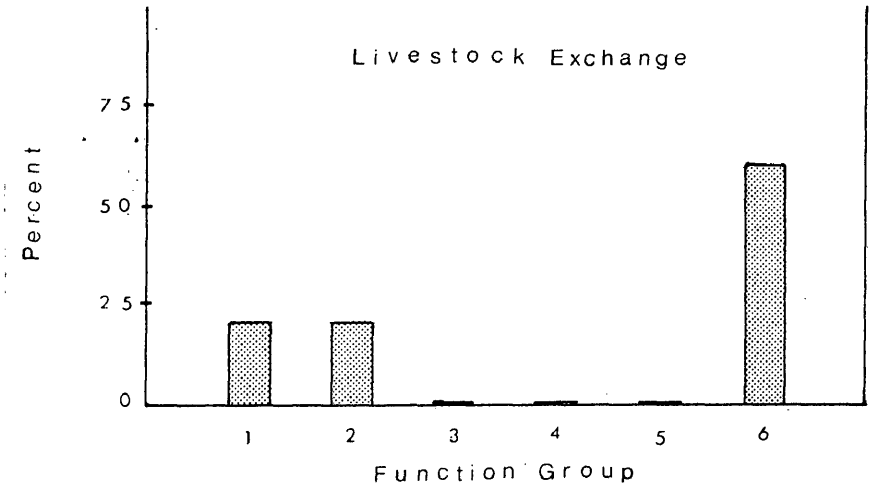

Figure 12. Area 8 Function Group Composition
Based on field research of H. E. Hornbeck.
1-R E, Fin, Ins Prof: 2- Trans, Util, Commo: 3- Gov't:
4- Med Art: 5-Atty: 6- Other Corp.

The Livestock Exchange Area is in reality just one office building located in the middle of the stock yards, yet its functional group composition and size allows it to compare on scale with the other areas, Table 4 and Figure 12. The three functional groups represented are 1 at 20%, 2 at 20%, and 6 at 60%. This is one of only three areas outside the Central Business District to have sufficient activity in the Transportation, Utilities and Communications Group (Group 2) to cause it to be represented in the emperical data collected for this study.

The last area to be discussed is an area the author has named the "Western Boot," see Figure 1 for the area's outline. Like the Central Business District, this area's function group is fairly balanced, Table 4 and Figure 13, and all groups are represented. This area's function group composition most nearly corresponds with the averages for the city, Table 4. The Western Boot Area has 79% of its functions in Function Group 1 (41%) and Function Group 6 (38%) with Function Group 4 at 8% followed by Function Group 2 and 5 with 5% each and lastly Function Group 3 at 3%. The Western Boot Area is the only area outside the Central Business District in which Function Group 3 is represented.

The function groups areal distribution, Table 5 and Figures 14 through 19, seem to follow a pattern that could be expected after reviewing the area composition. The function group appearing the most, based on average percentage of composition in Table 5, in Omaha was Function Group 1, Figure 14

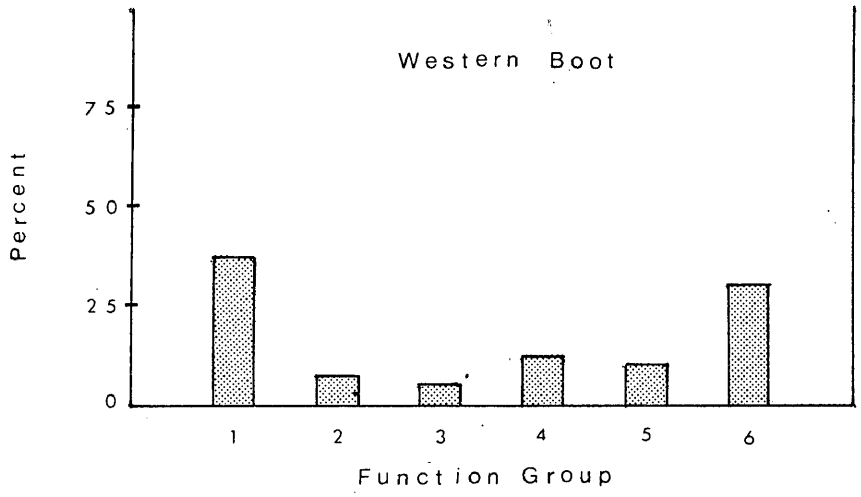

Figure 13. Area 9 Function Group Composition

Based on field research of H.E.Hornbeck.

1-RE, Fin, Ins, Prof: 2-Trans, Util, Commo: 3-Gov't: 4-Med Art: 5-Atty: 6-Other Corp.

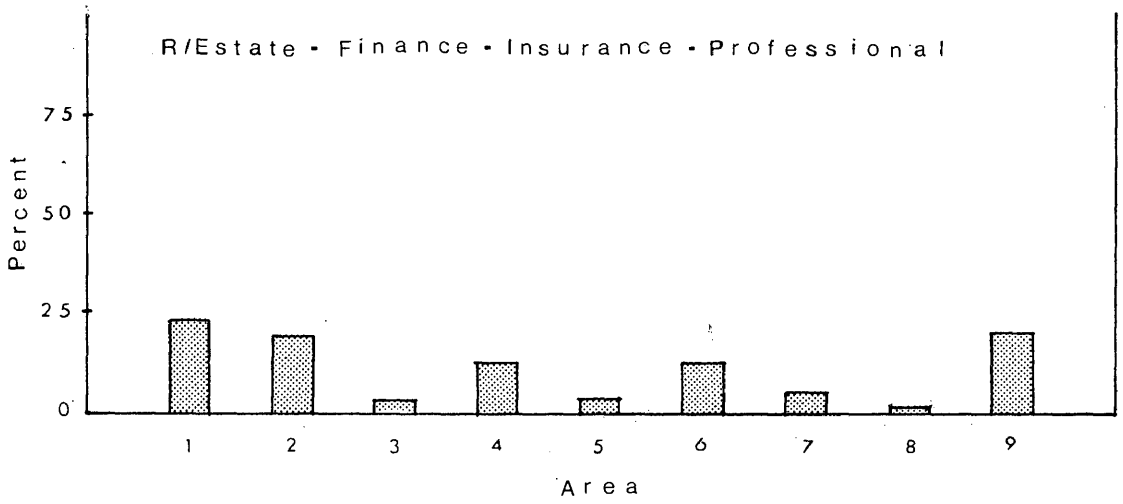

Figure 14. Function 1 Areal Distribution

Based on field research of H. E. Hornbeck.

1-CBD: 2-M-town: 3-C-roads: 4-Ind Hill: 5-Ctr: 6-M-Am: 7-W-gate: 8-L-stock Ex: 9-W-Boot.

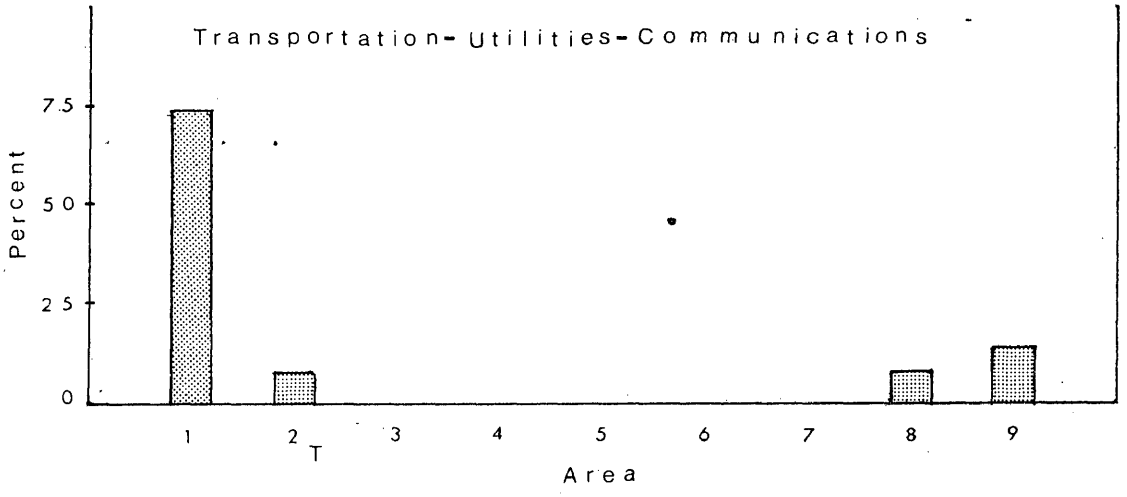

Figure 15. Function 2 Areal Distribution

Based on field research of H. E. Hornbeck.

1-CBD: 2-M-town: 3-C-roads: 4-Ind Hill: 5-Ctr: 6-M-Am: 7-W-gate: 8-L-stock Ex: 9-W-Boot.

(Real Estate, Finance, Insurance and Professional except Medical Arts and Attorneys). This group was concentrated in three areas: 23% in the Central Business District, 20% in the Western Boot, and 19% in the Mid-town Area. The remaining 38% was as follows: Indian Hills, 13%; Mid-America, 12%; Westgate, 5%; Center, 4%; Crossroads, 3% and Livestock Exchange, 1%.

The distribution of Function Group 2, Table 5, Figure 15 (Transportation, Utilities and Communications to include data processing services) was found to be highly concentrated in the Central Business District, 72%, followed by 14% in the Western Boot and 7% each in Mid-town and the Livestock Exchange. This function group does not appear in the other areas.

Function Group 3, Table 5, Figure 16 (Government) is more highly concentrated than Function Group 2. There was 91% of Function Group 3 in the Central Business District and the remaining 9% in the Western Boot Area.

Medical Arts, Function Group 4, Table 5, Figure 17 can be found in seven of the nine survey areas, thus indicating an attempt by the Medical Arts to reach the people. The concentrations are 28% in the Central Business District and 20% in the Indian Hills Area followed by 16% in Mid-town. The Western Boot and Westgate each have 12% followed by Mid-America at 8% and Center with 4%.

The Attorneys, Function Group 5, Table 5, Figure 18 is concentrated, as is Function Group 3, Government, in the Central Business District at 64%. The remainder of Function

TABLE 5

DISTRIBUTION OF FUNCTION GROUPS
(Percentages)

Area	Function*					
	1	2	3	4	5	6
CBD	23	72	91	28	64	27
Mid-town	19	7	. .	16	9	18
Crossroads	3	. .	. .	. .	. .	5
Indian Hills	13	. .	. .	20	9	8
Center	4	. .	. .	4	. .	2
Mid-America	12	. .	. .	8	9	8
Westgate	5	. .	. .	12	. .	5
Livestock Ex.	1	7	. .	. .	. .	5
Western Boot	20	14	9	12	9	22
Total	100	100	100	100	100	100

* Function codes are:

1. Real Estate/Insurance/Finance/Professional
2. Transportation/Utilities/Communication
3. Government
4. Medical Arts
5. Attorneys
6. Other corporate and miscellaneous

* Includes data processing services

Source: Field research by author.

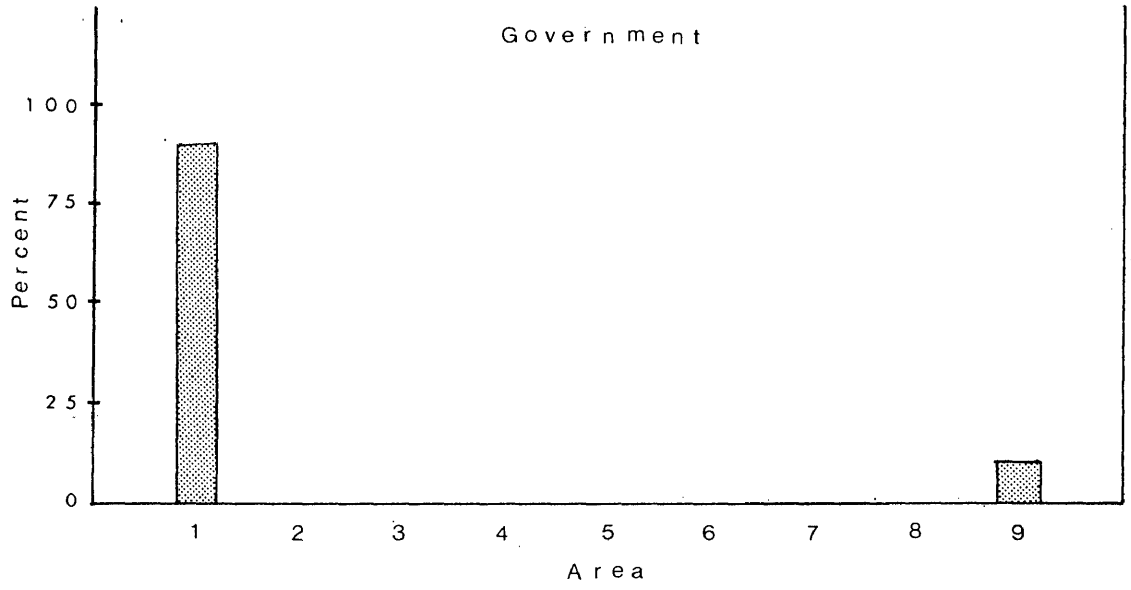

Figure 16. Function 3 Areal Distribution.
Based on field research of H. E. Hornbeck.
1- C B D: 2-M-town: 3-C-roads: 4- Ind Hill: 5- Ctr: 6-M-Am: 7-W-gate:
8- L-stock Ex: 9- W-Boot.

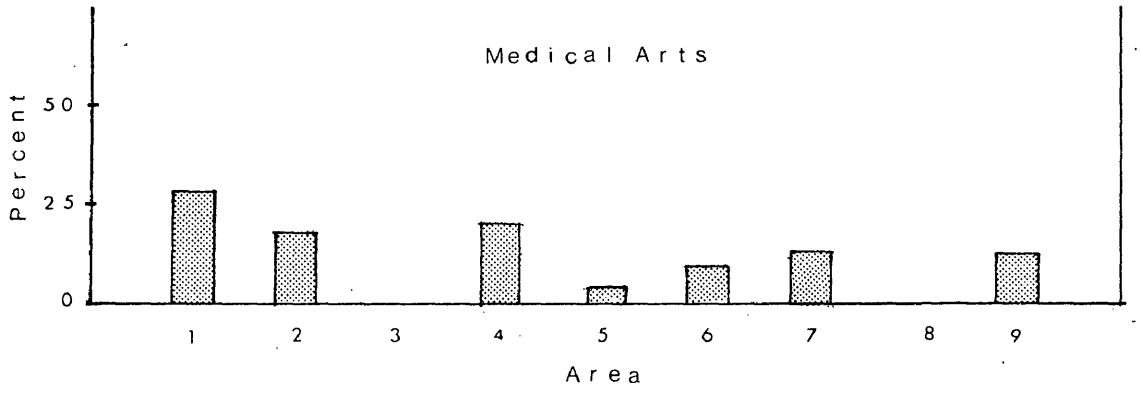

Figure 17. Function 4 Areal Distribution.
Based on field research of H. E. Hornbeck.
1- C B D: 2-M-town: 3-C-roads: 4- Ind Hill: 5- Ctr: 6- M-Am: 7- W-gate:
8- L-stock Ex: 9- W-Boot.

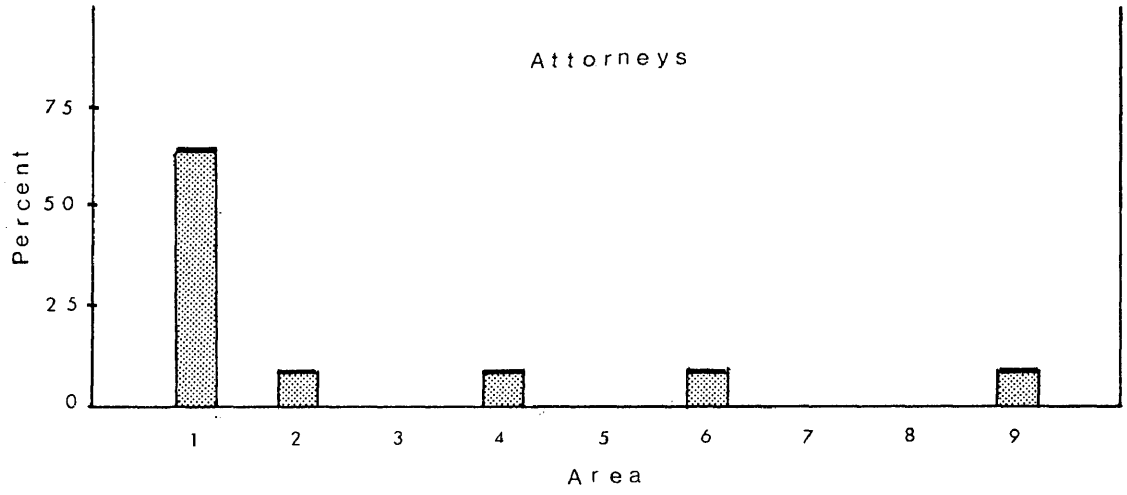

Figure 18. Function 5 Areal Distribution.
Based on field research of H. E. Hornbeck.
1- CBD: 2-M-town: 3- C-roads: 4-Ind Hill: 5- Ctr: 6-M-Am: 7-W-gate:
8-L-stock Ex: 9-W-Boot.

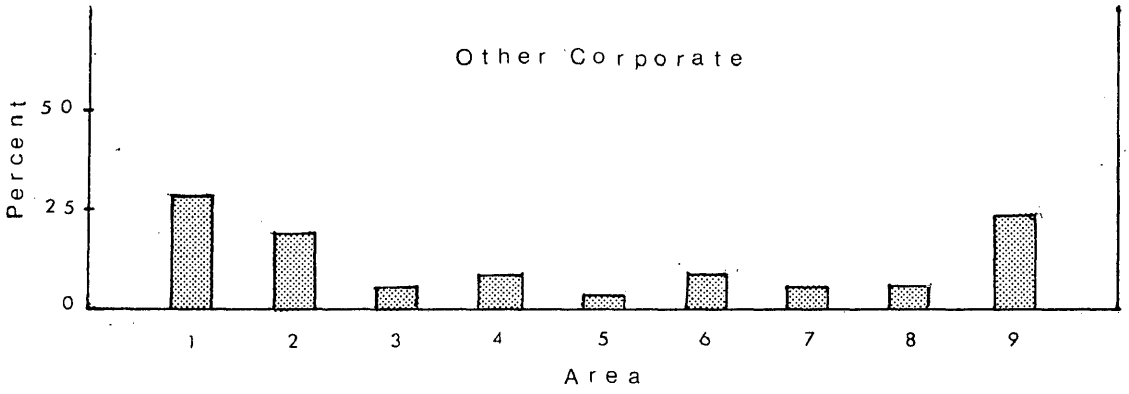

Figure 19- Function 6 Areal Distribution.
Based on research of H. E. Hornbeck.
1-CBD: 2-M-town: 3-C-roads: 4- Ind Hill: 5-Ctr: 6-M-Am: 7-W-gate:
8-L-stock Ex: 9-W-Boot.

Group 5 is evenly divided at 9% each in Mid-town, Indian Hills, Mid-America and the Western Boot.

The last of the function groups, number 6, Table 6, Figure 19, Other Corporate and Miscellaneous, is found with about the same distribution pattern as was Function Group 1. There is 27% in the Central Business District followed by 22% in the Western Boot and 18% in Mid-town. Indian Hills and Mid-America each have 8% and Crossroads, Westgate and Livestock Exchange each have 5%, the Center having the least at 2%.

Function Groups 2, 3 and 5 have the highest densities in a single area, thus a clustering effect, see Table 5, the area being the Central Business District. The function that appeared most in this study was number 1, Real Estate, Finance, Insurance and Professional except Medical Arts and Attorneys, and can be seen in Table 4 at an average rate of 36%. This is to be expected since Omaha was rated as "F3W" under the Nelson Classification System (Yeates and Garner, 1971, p. 503).

Office Vacancy Pattern

As might be expected the vacancy pattern, Table 6 and Figure 20, indicates a tendency for a higher rate of vacancy in the older parts of the city and a lower rate in the newer areas. This seems to be in opposition to urban renewal efforts. This vacancy trend is perhaps more than just a function of age of the building. There is the strong possibility that as a business expands requiring more space, the

TABLE 6

OFFICE SPACE VACANCY BY AREA
(Percentage)

Area	
CBD	14.88
Mid-town	2.15
Crossroads	7.98
Indian Hills	3.44
Center	. .
Mid-America	. .
Westgate	. .
Livestock Ex.	10.00
Western Boot	7.46
City Ave.	10.16

Source: Field research by author.

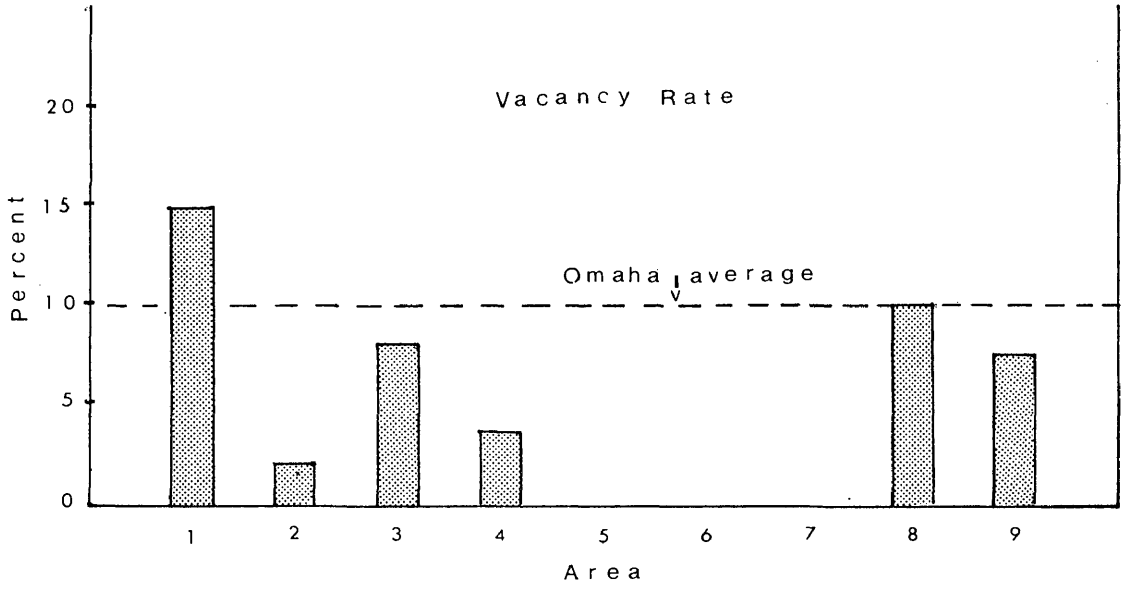

Figure 20. Office Space Vacancy Distribution.
Based on field research of H. E. Hornbeck.
1- CBD: 2-M-town: 3-C-roads: 4-Ind Hill: 5-Ctr: 6-M-Am: 7-W-gate:
8-L-stock Ex: 9-W-Boot.

larger office areas are not available in the same area, hence, a move is required to a newer office area (Empson, 1975), and this would be further to the west and southwest. When office buildings are being planned for and constructed, such as is going on at 72nd and Mercy Road and at 90th and West Dodge Road, pre-leasing is a common requirement placed upon the developer. The Embassy Plaza being planned for at 90th and West Dodge Road is to be a three-story building having 135,000 square feet and there were 56,000 square feet pre-leased to five tenants (Omaha World Herald, 19 Nov. 1975). Pre-construction leasing is a normal requirement by the money lender, such as an insurance company or bank. The average vacancy rate for Omaha's office buildings is about 10%. This fluctuates from approximately 14% in the Central Business District to an insignificant amount in the areas of Westgate, Mid-America and Center. The overall CBD vacancy rate for Indianapolis, Indiana for 1974 was 9% while a rate of 2% to 3% prevailed in the newer office buildings (Smith, 1970).

Office Building Construction Trends

Construction trends as used in this study was limited to the number of square feet per floor and the number of floors per building. This should reveal whether the building trend has been in a stacked or spread configuration and in which parts of the city the configuration occurs. As indicated in Chapter II, stacked is a building over three floors high with the ground floor counting as number one.

The construction trends for each of the nine city areas developed in this study, on a ten-year cycle, are at Table 7. There are different trends for different parts of the city, for example, in the Central Business District the trend is for more square feet per floor and more floors per building. Prior to 1945 in the Central Business District the average floor size was 9,587 square feet and the average number of floors was 7.16 per building, then during the 1965-1974 construction period the average size floor was increased to 11,768 square feet and the average number of floors increased to 10.45. The result is that today 32% of the office buildings in this survey (those in the Central Business District) average 10,752 square feet per floor and 8.31 floors per building.

The increases in the Central Business District are opposite those in Mid-town where the average floor size is getting smaller (from 11,580 square feet in the pre-1945 era to 4,856 square feet in the 1965-1974 period) as well as the number of floors reducing from five in the pre-1945 era to four in the 1965-1974 period. The average in Mid-town today is 7,815 square feet per floor and 4.59 floors per building. This average accounts for 21% of the office buildings in this survey.

The Livestock Exchange Building's size (160,000 square feet) and tenant composition (Table 4 and Figure 12) caused it to be considered as an "area" for the purpose of this study, however, to do more here than mention it as a ten-floor, 160,000 square foot building would serve no purpose.

TABLE 7

OFFICE BUILDING CONSTRUCTION DATA DURING PERIOD INDICATED, BY SITE

Site	Average Bldg. Data	Prior to 45	45-54	55-64	65-74	1975 Ave.
CBD	Floor Sq. Ft.	9,587	13,334	12,728	11,768	10,752
	No. Floors	7.16	6.00	10.67	10.45	8.31
Mid-town	Floor Sq. Ft.	11,580	20,857	6,880	4,856	7,815
	No. Floors	5.00	7.00	4.73	4.00	4.59
Crossroads	Floor Sq. Ft.	. .	. .	2,700	8,033	4,700
	No. Floors	. .	. .	2.50	1.50	2.00
Indian Hills	Floor Sq. Ft.	. .	. .	16,836	11,159	12,516
	No. Floors	. .	. .	2.75	2.92	2.88
Center	Floor Sq. Ft.	. .	. .	3,588	. .	3,588
	No. Floors	. .	. .	2.67	. .	2.67
Mid-America	Floor Sq. Ft.	. .	. .	6,395	13,397	13,456
	No. Floors	. .	. .	2.00	2.67	2.61
Westgate	Floor Sq. Ft.	. .	. .	7,500	6,275	6,416
	No. Floors	. .	. .	2.00	1.50	1.57
Livestock Ex.	Floor Sq. Ft.	16,000	. .	. .	. .	16,000
	No. Floors	10.00	. .	. .	. .	10.00
Western Boot	Floor Sq. Ft.	. .	. .	11,680	11,628	11,632
	No. Floors	. .	. .	2.50	2.03	2.07
City Overall Averages	Floor Sq. Ft.	9,934	18,600	9,618	10,495	10,329
	No. Floors	7.12	6.67	4.94	3.65	4.76

Source: Field research by author.

In the Western Boot area where 93% of its office buildings were constructed during the 1965-1974 period, the average floor size was 11,628 square feet and the average number of floors was 2.03 per building.

The other areas reflect the same low building profile, therefore, the westward expansion of office buildings was one of lowering profiles and spreading out over a larger area. This is also borne out by changes in the city averages, i.e., 9,934 square feet per floor and 7.12 floors per building for the pre-1945 period and 10,329 square feet per floor and 4.76 floors per building today. Omaha's 18 largest office buildings (over 100,000 square feet) are listed in Table 8, interestingly 14 of the 18 buildings are in the Central Business District.

Office Building Site Selection Criteria

The location of a new office building in a city is determined by many factors other than the availability of land, capital, proper zoning and utilities. Since these four factors are considered as basic, they are not an item for choice or negotiation when considering the advantages and disadvantages of any potential building site.

A major non-basic factor that should be considered early in site selection would be whether the building will be owner occupied, or put on the market as "office space for rent." The criteria to be considered in either case could be the same, or any similarity could be very vague, such as when

TABLE 8

OMAHA OFFICE BUILDINGS LARGER
THAN 100,000 SQUARE FEET

Inside CBD		Outside CBD	
Name	Sq. Ft.	Name	Sq. Ft.
Union Pacific Railroad Complex	508,900	Mutual of Omaha Complex	592,800
Northwestern Bell Complex	474,200	Livestock Exchange	160,000
Woodmen of the World Tower	373,000	Kiewit Plaza	150,000
U.S. Post Office and Federal Building	271,324	Plaza of the Americas	132,000
First National Center	237,000		
Northern Natural Gas	200,000		
U.S. National Bank	174,000		
Old Woodmen of the World Building	149,719		
First National Bank	125,000		
Farm Credit Building	118,000		
New Police Station	116,000		
Medical Arts Building	110,000		
City National Bank	110,000		
Douglas County Court House	100,000		

Source: Field research by author.

the owner wants to be close to a certain golf course or country club at the expense of other, and perhaps more logical, site choices. Table 9 is a partial listing of the major criteria normally used for office building site selection. Additional factors are perhaps pertinent to individual requirements and, hence, become their criteria.

When considering a potential site for an owner occupied building, a first consideration, after owner whim, would be the type of activity intended to be conducted in the building. A large corporation looking for a new home office site would perhaps establish criteria different from a bank or a medical arts group. When considering the occupant activity it should also be determined early whether the activity is basically a "confrontation" or "non-confrontation" oriented activity. If the activity is "non-confrontation," then perhaps an item such as customer access could even have a strong negative aspect, with even a degree of access difficulty built in the grounds design such as no convenient customer/visitor parking.

Currently there is a trend in the larger cities to locate new office buildings in closer proximity to the higher income residential areas (Hoyt, 1964). This trend can be seen in Omaha in the Indian Hills, Mid-America and Western Boot Areas, Figure 2, which experienced a 46.25% (1,451,597 square feet) increase in office building space from 1965 through 1974, Table 2. During this same period the Central Business District experienced only a 43.13% (1,353,400 square feet) increase in

TABLE 9

CRITERIA FOR OFFICE BUILDING
SITE SELECTION

General Requirements for All Sites
Land--Capital--Utilities--Proper Zoning

Specific Site Requirements

1. Customer access via public transportation or private transportation.
2. Employee access via public transportation or private transportation.
3. Close to activity support services.
4. Auxiliary facilities (food--entertainment--shopping).
5. Low crime area.
6. Site prestige.
7. Management convenience (owner's whim).
8. Ample convenient customer parking.
9. Other area function to draw customers (building occupant conjunctive symbiosis).
10. Customer availability in general area.
11. Employee availability.

Source: Smith, 1970
Murphy, 1972
Chapin, 1965
Armstrong, 1975
Field interviews by author.

office building space. This trend is presumed to be, at least partially, the direct result of high level management's desire to reduce its home to work travel time, inconvenience and cost, and perhaps even indulge itself in a measure of personal luxury. This trend is partially fueled by improvements in public transportation available to employees, as well as improved roads and parking areas to accommodate those employees who are driving to and from work. These improvements in the employees' ability to commute to work thus affords them also an opportunity to reside in the suburban areas more to their liking (Ullman, 1962).

Customer accessability for the confrontation type of activity would most likely take on an importance considerably greater than it enjoys with the non-confrontation group. Customer services such as retail shopping, automobile services, entertainment, restaurants, gift and flower shops are also becoming a must for a large part of the office employees. Office employees have expressed their preference to work in an area that will provide them the most of these "customer services." Safe and convenient parking, however, is most likely to be among the first factors considered when searching for a site for a confrontation activity. Since parking serves both the customer and the employee in this age of individual transport, the lack of adequate parking will cause the loss of potential customers, and employees both. People today will not go to an area or office if it is nearly impossible to

park. Public transportation as yet has not completely relieved the no parking situation (Smith, 1970), but progress is rapidly being made toward that end.

The John Madden Company, an Omaha based development firm, announced on 19 November 1975 that construction of a three-floor office building on the northwest corner of 90th Street and West Dodge Road in Omaha would start in late 1975 or early 1976. This 135,000 square foot building will have four office wings surrounding a central, glass covered courtyard. The 11 acre site is zoned "R-9" (10% commercial and 90% offices) is owned by the Prudential Life Insurance Company and is a portion of a 31 acre parcel of land that was acquired in 1972, the remaining 20 acres are devoted to the Embassy Apartments (Freed, 1975).

In a telephone interview with a representative of the John Madden Company (Shea, 1975) to ascertain what factors were used in site selection for an office building, it was determined that in the case of the Embassy Plaza the opposite had occurred. The site owner had selected a type of building rather than a builder selecting a site, however, after further discussion it was also learned that the reasons for selecting an office building was based on the advantages the site offered, hence, a match in reverse. The building will house renters only and their activity will, for the most part, be a confrontation nature. This particular site, according to the John Madden Company representative, offers the following

advantages for an office building. These reasons were not ranked by the John Madden Company.

1. Money--Land--Zoning--Utilities all available
2. Physical center of Omaha (close proximity)
3. People availability (customers)
4. Employee availability
5. Good public transportation
6. Adequate parking
7. Prestige address
8. Low crime area
9. Other customer services reasonably close
10. Other office buildings close--Indian Hills Area

(occupant conjunctive symbiosis, Smith, 1971). Parenthetical comments are the author's.

The preceding reasons, except eight and ten, for selecting an office building for this particular site were also given by Mr. M. Freed of the Prudential Life Insurance Company Mortgage Loan Office in Omaha as his company's building selection criteria. Both Mr. Freed and Mrs. Shea indicated these reasons were in common usage by their respective organizations and throughout their respective industries to the best of their knowledge. This list very closely parallels the criteria given in Table 9.

CHAPTER IV

CONCLUSIONS

In fulfilling the objectives stated early in this thesis, the ensuing several generalizations concerning the distribution of Omaha's office industry and the clustering of certain functions operating in these office buildings have been developed. These generalizations were based on emperical data extracted from the author's survey of 153 specially selected office buildings.

In theory, each subarea of the city has the ability to attract new office building investment dependent upon its position relative to all other areas. This potential is determined by a host of factors which have been analyzed. Thus, office buildings in Omaha are concentrated in nine areas, these being from the largest to the smallest based on the amount of office space (square feet): (1) Central Business District, (2) Mid-town, (3) Western Boot (author designated area), (4) Indian Hills, (5) Mid-America, (6) Livestock Exchange, (7) Westgate, (8) Crossroads, and (9) Center. Further investigation indicated that the north portion of Omaha is almost completely void of office buildings meeting the 3,000 square foot minimum size criteria used in this survey. Except for the Livestock Exchange Building, the south portion of Omaha is also a near void.

Since 1945 the office building construction activity in Omaha has been shifting westward from the Central Business District to the western and southwestern portion of the city. This has changed Omaha from having a strong Central Business District influence to one of nearing a balance between the Central Business District and Suburbia (58% of the space is still in the CBD). A balance, based on office building growth rate since 1945, should occur before 1980.

The office buildings being constructed today are less stacked and more spread out, i.e., the number of floors is declining and the size of the floors is increasing. There are exceptions, of course, such as the new 15-story office building under construction at 72nd and Mercy Road.

Office space vacancy rate in Omaha was found to be close to the urban norm of a higher vacancy rate in the Central Business District and older sections of the city than elsewhere. This reflects both pre-leasing for new construction outside the CBD and a desire by the growing office user organizations to obtain newer and more amiable office space.

In general the criteria used for site selection included the basic--land, capital, zoning and utilities as being required along with amenities for the employee as well as the customer. Access (roads, parking and public transportation) and employee availability seem to rank high on the list of desirable qualities for a site, yet owner whim is also a large factor.

Major office functions are fairly evenly distributed throughout the city, however, the transportation, government

and attorney functions are concentrated in the Central Business District.

Government space is considered endemic to the functioning of the Central Business District core (Murphy, 1972). The location of new office buildings in central city areas has been determined in part by the slum or blighted areas with old buildings which could be cleared away (Hoyt, 1964). This gives rise to the suggestion that the Central Business District is being externally sustained by various government urban redevelopment programs such as tax incentives and free building permits.

The views of Edward Ullman regarding the increasing importance of office buildings to the entire city and that outlying office centers are starting to develop that follow the multiple nuclei concept have been reinforced by Homer Hoyt (Murphy, 1972). A city today is not one, but a federation of general and special centers (Murphy, 1972).

Nearly two-thirds of Omaha's office functions are in the field of Real Estate, Insurance, Finance, Professional and other related corporate activities, thus, tending to support in part the Nelson classification for Omaha of "F3W" (Yeates and Garner, 1971).

It appears that, based on office building growth, an opportunity to stimulate new urban land use planning is at hand and perhaps these new plans should be enlarged in scope to a regional (Omaha's SMSA) basis rather than being limited

to the individual city/county zoning codes. This could be accomplished in part by adopting a regional office park concept similar to the Atlanta Plan. This would further suggest that a bi-state planning commission be established to conduct and coordinate the necessary regional planning actions. Metropolitan office location is too important a matter to be left to the energies of the developers, city mayors, county commissioners, and senior executive prejudices.

SELECTED BIBLIOGRAPHY

Published Works

Armstrong, Regina Belz. The Office Industry: Pattern of Growth and Location. Cambridge: The MIT Press, 1972.

Black's Law Dictionary. 14th Edition. St. Paul, Minn.: West Publishing Co., 1968.

Chapin, F. Stuart, Jr. Urban Land Use Planning. Urbana: University of Illinois Press, 1965.

Gladstone Associates, "Market Analysis and Development Potential--CBD--River Front Study Area for Omaha, Nebraska." Washington, D.C., 1973, (Mimeographed).

Gottmann, Jean. "Why the Skyscraper?" The Geographical Review, Vol. 56, April, 1966, pp. 190-212.

Haig, Murray. Major Economic Factors in Metropolitan Growth and Arrangement. New York City: New York Regional Plan of New York and Its Environs, 1927.

Hartshorn, T. A. "Industrial Office Parks: A New Look For The City." The Journal of Geography, (March, 1973), pp. 33-45.

Hoyt, Homer. "Recent Distortions of the Classical Models of Urban Structure." Land Economies, 40, 1964, pp. 199-204.

Manners, Gerald. "The Office in Metropolis: An Opportunity For Shaping America." Economic Geography, Vol. 50, No. 2, 1974, pp. 93-110.

Monkhouse, F. J. and Wilsinson, H. R. Maps and Diagrams. London: Methuen & Co. Ltd., 1971.

Murphy, Raymond E. The Central Business District. Chicago: Aldine-Atherton, Inc., 1972.

_____; Vance, J. E., Jr.; and Epstein, Bart J. "Internal Structure of the CBD." Economic Geography, 31, 1955, pp. 21-46.

Omaha City Directory, 1975. Kansas City, Mo.: R. L. Polk & Co.

Omaha World Herald. 19 Nov. 1975.

Smith, David M. Industrial Location: An Economic Geographical Analysis. New York: John Wiley & Sons, Inc., 1971.

Smith, Larry. Part II: Office Space, Metropolitan Indianapolis Planning Program, 1967-1970. Department of Housing and Urban Development, 1970.

Ullman, Edward L. "The Nature of Cities Reconsidered." Papers and Proceedings of the Regional Science Association, Vol. 9, 1962.

Wilkins, E. B. "Mapping for Planning." Public Administration Service Publication #101, 1948.

Yeates, Maurice H. and Garner, Barry J. The North American City. New York: Harper and Rowe, 1971.

Interviews

Blair, Tom. Omaha City Zoning Office. 25 June 1975.

Empson, Jon R. Downtown Omaha, Inc. 30 June 1975.

Ferring, Linda. Omaha Chamber of Commerce. 30 June 1975.

Freed, Marion. The Prudential Insurance Company, Omaha, Nebr. 25 November 1975.

Librarian. Creighton University Law Library. 27 June 1975.

McClary, John. Omaha Indemnity Insurance Company. 26 June 1975.

Rogers, Joe. Omaha City Building Permits and Inspections Office. 26 June 1975.

Shea, Mickey. The John Madden Company, Omaha, Nebraska. 25 November 1975.