

THE LOCATION OF FEDERAL OFFICES IN
METROPOLITAN BOSTON

by

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ABSTRACT

Title of Thesis: The location of Federal Offices in Metropolitan Boston

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The major concentration of Federal office use and employment is located in the city of Boston, which serves the Government as regional headquarters for the New England states. To a lesser degree Federal offices are located in suburban, metropolitan communities. In both the central city and the suburbs the military services consume more office space than civilian agencies.

The locational policies of the Federal government specify central business districts near rapid transit terminals and established government centers. The present distribution of civilian agencies in Boston conforms to Federal locational policies. The military agencies, however, are situated in areas peripheral to the central business district. The spatial, employment, and functional requirements of military offices do not differ substantially from those of civilian agencies.

The linkages between Federal offices and other land uses were examined as a method of determining the locational requirements of agencies in Boston. Two major locational requirements were indicated on the basis of available data and interviews. One is accessibility to the service area, population, governments, and region which the Federal office serves. The other is proximity to the business and professional communities which supplies the Federal agencies with goods and services.

The locational requirements reinforce the significance of the central business district for Federal office use. The study proposes that Federal agencies in Boston occupy diffuse locations throughout the central business district in order to strengthen the special linkages of individual agencies.

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Chapter I: Introduction

The contribution of office activities to the economic vitality of urban centers is generally acknowledged. While office buildings represent only modest amounts of land area, their significance is manifest in employment, floor space occupancy, the support of retail establishments, and the stimulation of commerce in general. Within the category of office use the role of governmental office functions is frequently overlooked, classified merely as a public or institutional land use. Yet the oversight neglects the fact that the bulk of daily governmental operations are performed in offices rather than in public ceremonies or legislative halls.

Office use is defined as establishments for the collection, collation, coordination, analysis, interpretation, and distribution of information. The common denominator of office activities is the production of services rather than tangible commodities. The essential factor is the flow of information, which results from administrative decisions. Personal associations, as sources of knowledge, initiate administrative procedures and personal contacts, as consumers of services, complete the office process.

The study, which follows, examines office activities on one governmental level, the Federal government, and in

one area, metropolitan Boston. It focuses on the distribution of Federal office space, the functional requirements of Federal office operations, and the Governmental policies regarding location. The following questions are investigated: Do existing locations and stated policies accurately reflect the internal functions and external associations of Federal office activities? Do present and proposed locations of Federal office buildings relate to programs for metropolitan development and urban revitalization? In short, is the location of Federal offices an effective instrument of public planning policy?

Federal offices differ from commercial offices in so far as they provide public, nonprofit services under the auspices of the national government. Central offices of Federal administration are located in Washington, D.C. Regional offices, comparable to top administrative offices of commercial enterprises, are characteristic of Federal agency organization in Boston.

The collective grouping of Federal offices, however, is an inadequate means of identifying locational requirements. Analysis requires a method which differentiates among the activities of individual Federal agencies as a basis for locational criteria. A method of determining the locational requirements of Federal office use applicable to broader issues of urban planning, the policies of governmental land use, the renewal of central business districts,

and the rationalization of office locations, is the main subject of the study.

Chapter II discusses the subject of Federal office use in the United States as background to the subsequent chapters. The scope of Federal office use as a national total and its extent in Massachusetts is presented briefly. Since Federal use is subject to Federal management, the agency responsible for office property, the General Service Administration, is described. The purposes and practices of the agency as well as its formulation of locational policy are examined.

Chapter III identifies the locations and size of Federal offices in the Boston metropolitan area. As Federal offices are particularly evident in the central city and less significant in other metropolitan communities, emphasis is placed on Boston locations. Existing locations are discussed in terms of the stated policies of Federal management and urban land use.

Chapter IV suggests a method for developing a theory of location appropriate to office use. The chapter, based on interviews with Federal agencies in Boston, employs the concept of linkages as a locational determinant. The activities of the agencies in relationship to the public, business enterprises, and other governments are analyzed. In addition the services performed, the characteristics of employment, and the transportation and communication

systems of Federal offices are discussed.

The concluding section, Chapter V, proposes alternative policies for the location of Federal offices in metropolitan Boston. The policies are derived from locational preferences expressed during the interviews and criteria for location based on linkages. The proposals demonstrate that the location of Federal offices can be a conscious instrument of public policy in urban planning.

Chapter II: Federal Office Use and Locational Policies

1. Federal Office Use

Federal land holdings are primarily devoted to rural uses. Federal real property consists of buildings, such as housing and factories, and facilities, such as utility systems and flood control installations. Federal office space, while an insignificant factor in acreage use, is an important constituent of Government-owned buildings. Federal government buildings comprise a gross floor area of 2.3 billion square feet of which office space occupies 272 million square feet.¹ The Defense Department, the General Service Administration, and the Post Office Department are the principal consumers of office space nationally with only 7 percent used by other agencies. The Federal government is, to a lesser degree, a renter of office space. Information is not available on the total office space rented by the Federal government, but the General Service Administration, the main rental agency, controls approximately 45 million square feet of leased space.²

Comparisons between Federal office use and commercial office use in the United States are difficult to make. In 1952 "rentable office space" in commercial buildings amounted to 386 million square feet.³ However, rentable office space is a net figure, while Federal property calculations are gross measurements. In addition data on owner-occupied com-

mercial buildings is not available.

In Massachusetts Federally-owned office buildings occupied sixty-five acres in 1955.⁴ Federal office space throughout the state totaled 7.1 million square feet (gross) and represented an investment of \$53.6 million. During the same year Massachusetts was the tenth major office location of the Federal government among the forty-eight states and Washington, D.C.

2. Federal Property Management: The GSA

In 1949 Federal property management was reorganized under a single agency with the establishment of the General Service Administration (GSA). The objective of the Government in creating the GSA was to consolidate the acquisition, management, and maintenance of public property in the interests of efficiency, economy, and service. The GSA incorporated functions of various agencies and created new units for the management of Federal real estate and personal property. Its authority, as enacted by Congress, included the purchase of supplies and services, the establishment of a system of contracts, the management of transportation and utility systems, the use of owned property, the disposal of excess property, and the maintenance of records.

At the present time the GSA is organized into five divisions, public building service, Federal supply service, national archives and records service, defense materials service, and transportation and public utilities service.

The central office is located in Washington, D.C., and ten regional offices have been opened. Region 1 covers the New England states with office headquarters in Boston.

While the GSA includes diverse functions, many of its operations center on the acquisition, allocation, and utilization of office space for other Federal agencies. The public building service is the division responsible for Federal office space control, while other divisions provide corollary office needs such as business supplies, record maintenance, and traffic management.

Within the building service are found the functions of maintaining property inventories, surveying Federal buildings, and programming new construction. The surveys of Federal buildings include existing space, estimate agency space needs, and describe community conditions. The programs set forth proposals for the extension or improvement of Government buildings, the consolidation or renovation of leased space, the rental or purchase of privately-owned buildings, the construction of new buildings, and the design of interior space. Recommendations by the regional office for site acquisition or construction require review by the GSA central office, the Bureau of the Budget, and Congress before action can be taken. New construction which exceeds \$200,000 must be approved by the Public Works Committees of the House and Senate. Contracts for new construction are awarded by the GSA central office when architectural fees are more than

\$10,000.

On the operational level the regional office receives frequent requests from local Federal agencies for additional space. When space is not available in a Federally-owned building, leased space is selected by bids from building owners, real estate agents, and brokers. The agency designates its preferred location and the final decision is made by the agency and GSA.

The GSA is, in short, a service organization for other Federal agencies. Within the region the provision and management of office space for civilian agencies is the responsibility of the GSA, subject to the special requirements of individual agencies. The military agencies are independent of GSA control, but may request its assistance in renting office space, building maintenance, or property disposal.

3. Federal Policies in the Location of Office Space

Policies for the location of Federal offices emanate from the central office of the GSA. The policy statements, issued as GSA orders, apply to all agencies regardless of their size or activities. The GSA does not have standards which differentiate between locations in regional centers and medium-sized cities or between small cities and towns. The uniform set of standards carries the implication that the nature of government activities, the requirements for space, and the locational factors do not vary qualitatively with the size of the community or the functions of

the agency.

The central business district is the preferred location of Federal office uses stated in GSA directives. The concept of direct service to the public as characteristic of agency operations underlies the locational choice. Convenience to employees and the service area as well as the large daytime populations in the business district are contributing factors. The primary locational requirement is proximity to public transportation, transit, rail, or bus service. In addition to the availability of public transportation, the cost, the frequency, the quality, and the time of commutation are considered. The availability of downtown, commercial parking facilities is a secondary factor. Accessibility to the general public, the labor market, and the service area all enter into locational decisions.

New office locations are recommended when interior space is inadequate, deteriorated, or obsolete and the neighborhood is in non-conforming uses or economic decline. The inability to expand or the high resale value of the property may preclude relocation. In the interests of economy the sale of high value property is suggested when suitable space at lower values can be purchased. Other conditions contributing to relocation are narrow streets, traffic congestion, and inadequate transportation facilities, which affect agency operations. Environmental factors extend to the attractiveness of the building, the suitability of the

neighborhood for employees, and the availability of restaurants within walking distance.

GSA construction programs are geared to budgetary appropriations. For the fifteen-year period beginning in 1959, a \$4.1 billion public building program is planned. The apportionment of Federal funds to each region is determined by the number of Federal civil employees, exclusive of postal workers. Priorities for new construction, expansion and renovation of Federal office space are based on a similar system. First preference is given to urban centers with 500 or more Federal workers, second to cities of 100 or more, and last to communities with less than 100. The priority system reinforces the advantages of existing locations in highly-populated cities.

The stated objectives of Federal property management are the efficient use of existing space and the disposal of excess property. The policy of the Federal government towards the leasing of office space is by no means definitive. Although it may be the long-term policy to house all Government office activities in Federally-owned buildings, the intention is not stated. While the Federal government has the ability to provide owned space, its willingness to do so is circumscribed by other national programs, budgetary demands, and immediate local conditions. The Federal government, acting in the public interest, is influenced by the financial position and economic conditions of communi-

ties in which it locates. In a city with a shrinking tax base and considerable institutional land use, the Federal government may favor a rental program, which indirectly contributes tax funds.

The purchase of privately-constructed buildings is less frequent than the rental of office space. Apparently funds are more readily expended on new construction than on purchase, when Government ownership is warranted. Land costs are not mentioned as a major consideration in the selection and location of new sites, although in actuality it may be a controlling factor. The use of expensive downtown office space for record-keeping or supply storage is a continual concern.

The suburbanization of office uses, which has been vigorously debated in the past ten years, is not discussed in GSA directives. New Federal office buildings have been constructed in the suburbs of Washington, D.C., but not in other governmental centers. On the regional level the policies of the Federal government dictate a central business district location.

Chapter III: Federal Office Use in Metropolitan Boston

1. The Spatial Distribution of Federal Offices

a. Federal Offices in Boston

The city of Boston serves the Federal government as a regional center much as it does business and financial enterprises whose headquarters are located in the city. Thus most Federal offices in the Boston Standard Metropolitan Area (SMA)⁵ are located in the capitol city. Eighty-five percent of total Federal office space and 80 percent of total Federal office employment are found in Boston, while only 15 percent of space and 20 percent of employment are located in other SMA communities.

The Boston central business district, as delimited by the city's Redevelopment Authority, consists of two areas, downtown Boston and Back Bay.⁶ Commercial home offices and regional headquarters are situated in both sections of the central business district. Downtown Boston is the major office area, while Back Bay is a secondary, but expanding office district. The downtown office district is characterized by the concentration of banks, insurance companies, brokerage firms, and law offices northeast of the city's retail core.

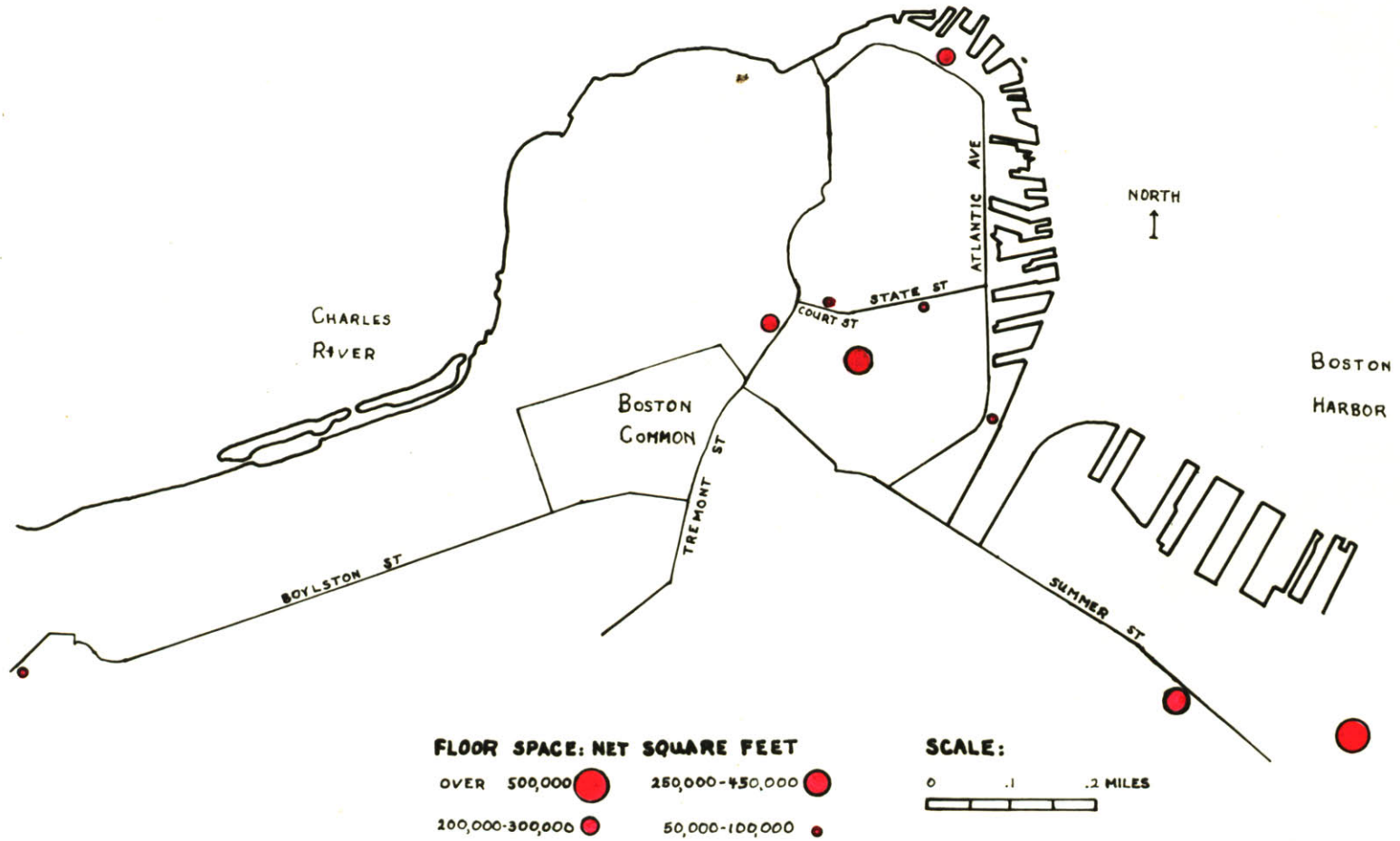
Four Federal office buildings (Table I and Map I) are situated in the heart of the downtown office district. The Federal government's largest downtown office site, the Post Office Building, is located at the confluence of three

Table I: Federal Office Buildings in Boston¹

| <u>Location</u> | <u>Name of Building</u> | <u>Net Square Feet</u> |
|----------------------------------|--------------------------|------------------------|
| <u>Central Business District</u> | | |
| Devonshire St. | Post Office Building | 380,462 |
| Tremont St. | Houghton-Dutton Bldg. | 262,613 |
| Court St. | Veterans Admin. Clinic | 75,713 |
| India St. | Customs House | <u>52,525</u> |
| | Subtotal: | 771,313 |
| <u>Waterfront</u> | | |
| Commercial St. | Coast Guard Building | 206,971 |
| Northern Ave. | Appraisers Stores | <u>109,487</u> |
| | Subtotal: | 316,458 |
| <u>South Boston</u> | | |
| Summer St. | Army Office Buildings | 536,583 |
| Summer St. | Navy Building | <u>454,821</u> |
| | Subtotal: | 991,404 |
| <u>Kenmore Square</u> | | |
| Ipswich St. | Internal Revenue Service | 104,279 |
| | Total: | 2,183,454 |

1 GSA, Space Analysis, Boston, Massachusetts, March, 1959 and interviews.

MAPI: FEDERAL OFFICE BUILDINGS IN BOSTON



streets, Congress, Federal, and Devonshire, connoting commercial activities. Located within three blocks of the Post Office Building, there are three other Federally-occupied buildings, The Customs House, 17 Court Street, and 55 Tremont Street. The latter two buildings can be considered as part of the existing government center formed by the State House, County Court House, City Hall, and other government office buildings. Small offices, leased by the Federal government, are also scattered throughout the downtown area.

The Federal government in its location of office space appears to have gravitated toward the main governmental and commercial office districts of the city. The Post Office Building, as previously mentioned, is one of the largest Federally-owned properties, while 55 Tremont Street is the largest building leased by the Federal government. However, the four downtown buildings represent only 32 percent of the office space occupied by the Federal government in Boston. The Back Bay does not share in the location of Federal office uses. Federal property in this area is confined to a postal annex and a vacant parcel used for parking. Thus one must look outside the central business district for the major location of Federal office space.

Six large Federal office buildings are located within central Boston, but beyond the area commonly designated as the central business district. Three distinct locations

peripheral to the central business district, the waterfront, South Boston, and Kenmore Square, are evident. There is no apparent grouping of buildings by office use in the three locations, though other functional factors are present. The smallest building is a recently purchased, long occupied, Federal property on Ipswich Street. Two buildings are located on the waterfront about three-fourths of a mile apart. One is the Appraisers Stores on Northern Avenue at the edge on the central business district, and the other, the Coast Guard Building, is on Commercial Street in the North End.

The major Federal office location, as measured by floor space, is in South Boston. The Navy Building and the Army Base maintain three buildings in this location totaling nearly one million square feet or 42 percent of Federal office space in the city. The combined office uses of the military services, the Army, Navy, Air Force, and Coast Guard, occupy substantial urban locations and consume more office space than the total of all civilian Governmental agencies.

b. Federal Offices in Other SMA Communities

The characteristic Federal use in SMA communities other than Boston is the Post Office. The Post Office Department is usually the main occupant of floor space and the largest Federal employer. In determining the extent of Federal office use in other SMA communities, Post Office space has been excluded because of the specialized functions and

locational policies of postal operations, However, space in Post Office buildings occupied by other agencies for office use has been included.

Only ten SMA communities outside of Boston have Federal office uses according to interviews and GSA records (Table II and Map II). In all but four communities office space is less than 5200 square feet. The largest Federal office use outside of Boston, and the only example of the suburbanization of a regional office in the metropolitan area, is the headquarters of the United States Army Corps of Engineers located in Waltham. Other major suburban office centers are located in Watertown, Natick, and Lynn, all exceeding 40,000 net square feet. In most of the communities Federal offices are situated in or near the central business district.

The spatial distribution of Federal offices in the metropolitan area are within ten miles of Boston, except for one community. There is a grouping of Federal offices in the inner suburbs north of Boston, although there is no indication that location is related to major population centers. Federal office uses are almost absent from the outer metropolitan suburbs.

c. The General Locational Pattern in the Boston SMA

The pattern of Federal office locations in the metropolitan area is dominated by a strong concentration in central Boston and minor scatteration in a ten mile radius

Table II: Federal Office Use In Boston SMA Communities¹

| Community | Net Square Feet | | | Number of Employees |
|-------------------------|-----------------|-----------|-----------|---------------------|
| | Leased | Owned | Total | |
| Boston | 412,411 | 1,988,100 | 2,400,511 | 8893 |
| Waltham | 17,182 | 219,389 | 236,571 | 1608 |
| Watertown | - | 62,220 | 62,220 | 200 |
| Natick | - | 52,720 | 52,720 | 325 |
| Lynn | 5,064 | 41,748 | 46,812 | 85 |
| Malden | 5,178 | - | 5,178 | 25 |
| Winchester | 2,905 | - | 2,905 | 1 |
| Chelsea | 2,607 | - | 2,607 | 11 |
| Concord | 1,884 | - | 1,884 | 11 |
| Woburn | 390 | - | 390 | 3 |
| Dedham | 250 | - | 200 | 1 |
| Subtotal: Non-Boston | 35,460 | 376,077 | 411,537 | 2270 |
| Total: Boston SMA | 447,871 | 2,364,177 | 2,812,048 | 11163 |

¹ Based on interviews and GSA community surveys conducted from 1957 to 1960.

MAP II: FEDERAL OFFICE LOCATIONS IN THE BOSTON SMA



LEGEND:

- STATE BOUNDARIES
- SMA BOUNDARIES
- CITY BOUNDARIES

FLOOR SPACE: NET SQUARE FEET

- 2,400,000 
- 200,000 
- 50,000 
- UNDER 5,200 

SCALE:



of the city. A major suburban location is found in Waltham and three secondary locations in Lynn, Natick, and Watertown, together comprising 97 percent of non-Boston Federal office use. Within Boston itself there are no significant office uses beyond the central city area. If the military branches of the Defense and Treasury Departments are included, then the major location of Federal uses are peripheral to the central business district, contrary to avowed locational policies for Federal office use. Excluding the military services, the concentration of civilian agencies in downtown Boston conforms to established Government locational policies.

2. The Location of Federal Agencies

The preceding section has discussed the general distribution of Federal office space in the metropolitan area. In this section the location of Federal agencies will be analyzed in terms of the utilization of office space and the number of office employees. Particular attention will be given to the largest agencies in Boston, as measured by space and employment.

The term agency, as used in this paper, refers to an administrative unit of the Executive branch of the Federal government. The most familiar units are the departments, which are represented in the Cabinet, but the term will be used to include units of lesser status such as administrations, boards, and commissions. In addition some of the

divisions under the jurisdiction of departments, such as the Internal Revenue Service of the Treasury, are significant in size and will be examined in detail.

a. Major Federal Agencies in Boston

Thirty-one Federal agencies maintain offices in Boston (Table III). The major space users are six departments, Defense, Treasury, Post Office, Justice, Interior, Health, Education and Welfare, and the Veterans Administration, the United States Courts, and the GSA. By far the largest user of office space is the Defense Department, covering the Army, Navy, and Air Force, which occupies 1,255,292 net square feet, 52 percent of the total. The second largest space occupant is the Treasury Department with 549,360 net square feet, nearly 23 percent of total Federal office space. The third and fourth largest users are the Veterans Administration and the Post Office with 192,589 and 181,609 net square feet respectively. The five other large agencies occupy office space ranging from 37,000 to 60,000 net square feet. The major agencies and subagencies by office space occupancy in order of size are the Army, Navy, Coast Guard, Internal Revenue Service, Post Office, Veterans Administration Regional Office, Bureau of Customs, Veterans Administration Out-Patient Clinic, United States Courts, and Air Force, all using more than 58,000 net square feet.

The general pattern of agency office use is the se-

Table III: Federal Office Use in Boston by Agencies¹

| Agency | Net Square Feet ² | | | Number of Employees |
|---|------------------------------|---------|---------|---------------------|
| | Leased | Owned | Total | |
| Treasury | 107,222 | 442,138 | 549,360 | 2660 |
| Army | 618 | 536,583 | 537,201 | 869 |
| Navy | 16,249 | 454,821 | 471,070 | 998 |
| Veterans Administration | 118,205 | 74,384 | 192,589 | 858 |
| Post Office | - | 181,608 | 181,608 | 1163 ³ |
| United States Courts | - | 60,052 | 60,052 | 86 |
| Air Force | 1,928 | 56,917 | 58,845 | 269 |
| Justice | 34,772 | 18,657 | 53,429 | 336 |
| General Service Administration | - | 44,280 | 44,280 | 338 |
| Interior | 21,686 | 19,429 | 41,115 | 186 |
| Health, Education and Welfare | 24,245 | 13,447 | 37,692 | 232 |
| Federal Aviation Agency | 25,021 | 921 | 25,942 | 36 |
| Commerce | 2,844 | 22,593 | 25,437 | 108 |
| Civil Service Commission | - | 21,267 | 21,267 | 113 |
| Labor | 20,466 | 599 | 21,065 | 122 |
| Agriculture | 352 | 15,539 | 15,891 | 98 |
| Selective Service System | 13,222 | 672 | 13,894 | 33 |
| National Labor Relations Board | 7,522 | - | 7,522 | 35 |
| Small Business Administration | 7,340 | - | 7,340 | 72 |
| Congressional Housing and Home Finance Agency | - | 6,363 | 6,363 | 32 |
| Interstate Commerce Commission | 4,964 | 360 | 5,324 | 64 |
| General Accounting Office | 4,680 | - | 4,680 | 29 |
| State | - | 3,688 | 3,688 | 67 |
| Railroad Retirement Board | - | 3,224 | 3,224 | 8 |
| Federal Mediation and Conciliation Service | - | 2,590 | 2,590 | 12 |
| Securities and Exchange Commission | - | 2,442 | 2,442 | 8 |
| Federal Communications Commission | - | 2,436 | 2,436 | 16 |
| | - | 1,815 | 1,815 | 8 |

Table III: (continued)

| Agency | Net Square Feet | | | Number of Employees |
|-------------------------------------|-----------------|------------------|------------------|---------------------|
| | Leased | Owned | Total | |
| Merchant Marine Library Association | - | 1,200 | 1,200 | 2 |
| Federal Home Loan Bank Board | 1,075 | - | 1,075 | 34 |
| Federal Trade Commission | - | 75 | 75 | 1 |
| Total: 31 | 412,411 | 1,988,100 | 2,400,511 | 8893 |

1. Based on GSA, Space Analysis, Boston, Massachusetts, March 1959 and interviews. Non-office uses were deleted and changes in space and employment were made.
2. Net square feet is derived from the GSA category of "net assignable area" for each agency, which is computed by measuring interior office space and jointly used space, and excluding public space, such as stairwells, elevators, and lobbies.
3. Includes non-office postal employment.

lection of central city locations. The distinction in location occurs between civilian and military agencies rather than among the several agencies by function. The largest agency by space occupancy, the Defense Department, is located in South Boston. The largest civilian agencies use office space in the central business district, but by no means exclusively. The Treasury Department, for example, maintains four buildings in three locations. The social security administration of the Health, Education and Welfare Department occupies fourteen field offices in Boston in

addition to its main office in the business district. The location of the Army and Navy buildings indicate decisions determined partly by related facilities. The Army office uses are on the Boston Army Base and the Navy Building is adjacent to the Naval Annex.

Although space usage is a significant determinant of size the number in Federal office employment is probably a better measure of the Government's contribution to the metropolitan economy. There is a correlation between the largest agency space users and the largest agency employers, except for the United States Courts. The Courts, which are a significant space use, are not among the largest employers. The Defense Department, the largest space consumer, is the second largest employer, exceeded by the Treasury Department, which has a staff of 2,260. The largest agencies, Treasury, Defense, Post Office, Veterans Administration, GSA, Justice, Health, Education and Welfare, Interior, and Labor, employ 8031 people or 90 percent of Federal office employment in Boston.

By subagency classification the Internal Revenue Service and the Post Office each employ more office personnel than the military subagencies, the Navy, Army, and Coast Guard, which are next in order. The military branches, including the Air Force, employ 31 percent of Boston Federal office workers, while the Internal Revenue Service employs 17 percent.

b. Major Federal Agencies in Other SMA Communities

The Defense Department is the dominant Federal agency by space occupancy and employment in other SMA communities. The Department represents over 90 percent of both Federal office space and employment outside of Boston. The largest employer subagency is the Corps of Engineers with a staff of 869. Civilian agency floor space and employment, except for the Post Office Department, are relatively insignificant.

Three other agencies are significant by their numerous locations rather than floor space or employment. The Selective Service System has thirty offices; the Health, Education and Welfare Department eight, and the Internal Revenue Service four in other SMA communities.

3. Types of Federal Office Space

Federal offices are housed in three types of space: Government-constructed and owned buildings, privately-constructed Government-owned buildings, and leased space. The majority of Government office space is Federally-owned, 83 percent in Boston and 91 percent in other SMA communities. Two Federal locations in Boston are housed in structures built by private entrepreneurs and subsequently purchased by the Government. At the present time there is only one major leased building wholly occupied by Federal agencies, ^{an} antiquated department store converted into offices. The remaining rented offices in Boston, less than

36 percent of the total leased space, are in various private buildings with other non-Federal uses. Leased space is mainly in downtown Boston, while over half of the owned space is located outside the central business district. The space occupied by the military services is almost exclusively under Federal ownership, while civilian agencies occupy both owned and leased space.

A new Federal office building, housing civilian agencies, has been proposed for Boston, the site approved by the GSA, and the architects selected. The building, which will be located in the central business district within an expanded civic center, is scheduled to provide 700,000 net square feet of office space. The new building will enable the consolidation of dispersed agencies, additional space for agency activities, and the abandonment of obsolete space, resulting in a total increase of 100,000 net square feet of Federal office space. Two agencies, the Internal Revenue Service and the Veterans Administration, according to preliminary plans, will occupy more than half of the space in the new building. The major leased building, which houses a large part of their operations now, will be vacated. The proposed construction will result in an over-all increase in Federally-owned office property in Boston and a considerable reduction in leased locations. The leased space, which will be retained, is primarily for storage and special uses. The building program for Boston will

place most office uses in Federally-owned buildings and provide 50,00 square feet for future expansion.

4. Federal and Commercial Office Use in the Central Business District

The latest report of the Boston Redevelopment Authority estimates a gross floor area of 24.3 million square feet devoted to office use in the central business district.⁸ The amount of floor space given to office activities comprises 35 percent of total building accommodations and exceeds all other business uses, such as wholesaling, retailing, manufacturing and consumer services. Federal government office use, according to GSA data, occupies a net floor area of 1,183,724 square feet in the central business district, excluding the two postal annexes. Converting the net figure into gross footage the Federal government occupies approximately 5.7 percent of the total office accommodations in the area.

In 1953 the Boston City Planning Department conducted a survey of downtown Boston and Back Bay, which provides a consistent set of gross measurements.⁹ According to its report governments at all levels were the second largest single office user in the central business district, surpassed only by insurance companies. The Federal government occupied 1.3 million square feet or 6.5 percent of the total office accommodations, exceeding in office use all other governments, state, county, city, and public authorities.

Chapter IV: Determining the Locational Requirements of Federal Offices

1. Methodology of Study

Locational theory, as it has developed to date, does not have a ready application to the location of office uses in metropolitan areas. The theory has evolved from the construction of models and the analysis of industrial operations, especially manufacturing enterprises. The crucial elements in the theory are the sources of raw materials and the position of marketing areas. The location of an individual manufacturing industry is determined by its ability to reduce frictions, particularly transportation and site costs, in the acquisition of materials, the production process, and the distribution of commodities.¹⁰ In the location of office uses raw materials play a negligible part as the commodity is generally an intangible service. Rather location is determined by the methods of processing information, the clientele served, and the supply of labor. Transportation is a factor in terms of its availability to clientele and employees rather than as a production cost.

Recent research on office location has dealt almost exclusively with the movement from central cities to suburban areas. The most notable contribution has been made by Foley in an analysis of the relocation of administrative offices in the San Francisco Bay area during a twenty-five

year period.¹¹ In the Bay area study Foley confirmed the decline of administrative office use in central San Francisco and its increase in suburban locations. The significant factor in suburban relocations, isolated by Foley, was the attachment of an administrative office to a nonoffice use, such as a factory, warehouse, or terminal. Relocated administrative offices were almost all attached to nonoffice facilities. Detached top administrative office uses showed almost no tendency to relocate, although the establishment of suburban branch offices was increasing. The concentration of administrative offices within business districts was the prevailing pattern in San Francisco, Berkeley, and Oakland despite suburbanization trends.

Foley's study was concerned with a dynamic situation in which a change of location had occurred, was reported and analyzed. In this chapter a tentative method of determining the locational requirements of Federal office uses, incidental to an actual or contemplated change of address, is presented. The development of such a method is a needed analytical technique in the formulation of an urban plan or the rationalization of office locations. The basis for the method employed here is the concept of linkages expounded by Mitchell, Rapkin, and Rannells.

As defined by the authors a linkage is:

...a relationship between establishments characterized by continuing or frequently recurring interaction. It is associated

with the movement of persons and goods between linked establishments and generates a tendency on the part of linked establishments to seek proximate locations.¹²

... a relationship between establishments characterized by recurrent interactions which require movement of persons or of goods or the exchange of information.¹³

For the present study the definition has been accepted with modifications related to office operations. Interactions are examined not merely on the basis of links between establishments, but also between individuals and the Federal office. In the case of Federal office activities involving contact with the general public, the individual's establishment, be it a place of residence, work, or origin, is neither easily identifiable or always relevant. Further, greater emphasis is placed on the movement of information and the systems of communication, verbal, written, and mechanical, than suggested by the authors. The definition of linkages¹⁴ which is applied, is recurrent interactions between Federal offices and other establishments, and frequent associations between Federal offices and individuals, requiring the movement of people, information, and goods.

The definition provides a means for identifying linkages by the types of movement which contribute to office activities. Three types of movement, the movement of people, the flow of information, and the transportation of goods,

provide the connections between Federal offices and other land uses. The movement is characterized by a two-directional flow, those which enter the Federal office building and those which emanate from it. Communication and circulation systems are the channels through which linkages are accomplished. To determine linkages a method of recording Federal interactions in relation to the channels of movement is needed.

The movement of people can be measured by in-person visits. It consists of visits by individuals directly to the Federal office and visits by agency personnel to individuals away from the office. The individual visitor to the agency can be differentiated by the motivation for his trip, the solicitation of information and advice or the selling of goods and services. Likewise visits by agency personnel in the line of public service are made to field offices, to clients directly, and to business organizations. Employees also make personal trips to retail uses in the vicinity of the office, which are unrelated to agency business.

The professional, business, or governmental visitor can be identified by the establishment or land use to which he is attached. The employee can be classified by his place of residence, the origin of his trip to work. In the case of the Federal agency which conducts personal inter-

views with a large clientele, the origin of the visit cannot easily be inferred. The problem is one of identifying the appropriate land use origin of the visit to the agency. The easiest information to obtain would be the visitor's place of residence, but the trip may originate from a workplace or activity center. The source of the trip, if established, could serve to rationalize Federal office locations in terms of capturing public attention and facilitating visits.

Federal agencies, which provide direct client service, maintain monthly counts of the number of visits to the main office and interviews at other locations. However, the records do not indicate the type of service requested, the peak-time of visits, the recurrence of visitors, the home address of visitors, or the percentage of clientele in the metropolitan area who visit yearly. In addition information is not available on interviews which result in a second visit, a trip to another agency location, or referral to another governmental office. Other agencies do not keep track of visitors except for minor security procedures of the military branches.

Visits with business organizations and other governments, the major links of many Federal agencies, are not recorded. Numerical counts would provide information whereby linkages with the business and governmental community could be compared to linkages with the general public.

Comparison would indicate whether personal contact with the public or businesses is more important in terms of agency operations. Comparison would contain also locational implications because of the different land use characteristics of business and residential use.

Accessibility is the criterion of location for agencies dependent on the movement of people. Agencies which are visited by the public in the role of clients require locations that minimize travel time to the agency from a wide service area. Therefore information is needed on the average visitor, but not the total clientele which would include visitors and non-visitors. The origin or the residence of the visitor from which travel time could be computed would indicate the location of maximum accessibility. Additionally the age distribution of visiting clientele would relate locational constraints, as a proportionately older group of visitors would probably be less mobile than a younger one. Agencies, which have frequent personal relations with other businesses, especially commercial offices, require proximity to these uses, possibly within walking distance. Agencies, whose personnel travels throughout the region to supervise, survey, or consult with industries and governments require locations accessible to long-distance transportation routes, highways, airports, and railroads.

The provision of information, which does not take

place in a personal meeting, is a significant aspect of agency business. It is possible that the flow of information can be counted by messages, which are received or transmitted by the Federal agency. The major channels for such information are telephone calls, mail deliveries, Government publications used by Federal offices, and reports, forms, and applications distributed by the agencies.

The problem of identifying the flow of information is more complex than recording the movement of people. Merely counting the messages is difficult because of the variety of forms communication assumes and the multiplicity of systems involved in transmittal. Evaluating the messages requires a uniform system of measurement. Despite the complexities the complete picture of agency linkages cannot be determined without analyzing the methods of communication. However, the land use implications of information movement may not be as stringent as personal movement because of the versatility of communication systems.

While telephone interviews are counted by agencies with large clienteles, the volume of messages through other channels is unknown. Records of phone interviews do not include the locations from which calls are made or the type of information requested. Thus it is impossible to establish the relative importance of telephone conversations to mail communications. Further difficulties occur in evaluating the relationship of information flow to personal contact.

Does the type of information provided indirectly differ materially from that provided in person? Does the receipt of mail communications result in written, phone, or personal response? Does the transmittal of information activate, reduce, or impinge on personal contact?

Still another means of indirect communication are monetary transactions between Federal agencies and the public, business organizations, and other governments. As a movement of information the tracing of financial exchanges indicates a pattern of interaction between the Federal office and other land uses.

The movement of goods is a less important factor in the office operations of Federal agencies than the movement of people or information. In fact sufficient data on the latter types of movement might obviate the necessity for information on goods movement. Regional Federal offices are not involved in Governmental industrial production. The agencies are, nonetheless, linked to business and industrial uses as consumers of manufactured commodities. The purchasing, transportation, and distribution of goods for agency use are largely centralized in GSA. Because of its role of Federal supplier the origin of products is locationally more significant for the GSA than for the ultimate agency consumer. The military agencies, which use GSA services, also negotiate directly for industrial goods.

In regard to Federal offices the movement of people is the most important locational factor. The movement of information, while crucial to office operations, is a less important factor and the movement of goods is the least significant locational item. Therefore in assessing the relative importance of the three types of movement in terms of location messages would receive a lower value than visits, while goods movement might be eliminated for reasons previously given.

The method of determining the locational requirements of Federal agencies, suggested above is the formulation of a system of people, information, and possibly goods movements, which links the Federal office use and other land uses through the transportation and communication systems. The method was approached, but not satisfactorily accomplished in the analysis of Federal office activities in metropolitan Boston.

2. Interview Procedure

Linkages were determined by interviews with representatives of the largest Federal agencies in the Boston metropolitan area. The following seven agencies were interviewed: the United States Army (Army), the United States Navy (Navy), the Internal Revenue Service (IRS), the Veterans Administration (VA), the United States Army Corps of Engineers (Corps), the Post Office Department (PO), and the GSA. With the exception of the GSA the agencies represented

the top Federal offices in both employment and space occupancy. The GSA was included because it ranks as one of the largest employers of office personnel and because of its special competency in the subject of office utilization. The agencies interviewed comprise more than 60 percent of Federal office space and employment in the Boston SMA.

Table IV: Interviewed Agencies¹

| <u>Agency</u> | <u>Net Square Feet of Office Space</u> | <u>Number of Employees</u> |
|-----------------------------------|--|--------------------------------|
| U.S. Army | 537,201 | 869 |
| U.S. Navy | 471,070 | 998 |
| Internal Revenue Service | 201,082 | 1,597 |
| Veterans Administration | 192,589 | 858 |
| Post Office | 181,608 | 1,163 |
| Corps of Engineers | 156,155 | 862 |
| General Service Administration | 44,280 | 338 |
| <hr/> | | |
| Total: | 1,783,985 | 6,685 |
| <hr/> | | |

¹ Based on GSA, Space Analysis, Boston, Massachusetts, March 1959 and interviews.

The interviewees were agency personnel responsible for real estate or management functions. In most instances more than one person in each agency was contacted and the office space was toured. While the responses were neither

quantitative nor objective, the interviews were structured around a predetermined set of questions relative to linkages. Linkages were ascertained by discussion of the services provided to the general public, the associations with business enterprises necessary to agency operations, and the relationships with governmental units on all levels, other Federal agencies, state governments and municipal authorities. The quality and intensity of linkages were approximated by questions involving the types of movement, whether people, information, or goods; the methods of contact, in-person, telephone, or mail, and the frequency of contacts, daily, weekly or monthly. In addition the modes of transportation used by the agency, its employees and clientele; the systems of communication, telephone, written reports, and automatic data processing, and the characteristics of the agency work force were discussed. Finally, the interviewee was asked to express a preference for the location of his agency's office operations.

The organization of the four civilian agencies, the IRS, VA, GSA, and PO, is based on a geographic regions whose headquarters are located in Boston. The region for each encompasses New England with the exception of the VA, which is limited to the state of Massachusetts. In the case of the IRS and PO the designation of a district office in Boston coincides with the location of a regional office. The four agencies maintain field offices and

branches in other communities within their respective regions, usually in urban centers.

With respect to the military agencies, the Corps is organized into regions based on river valleys. The regional headquarters for New England except for a part of Vermont is located in Waltham. The Navy Building in South Boston is the office headquarters for the First Naval District, which includes all the New England states but Connecticut. The Boston Base on which the Army office buildings are situated is part of the First Army Area, which covers the New England states, New York, and New Jersey.

In general all the agencies interviewed represent regional offices except the Army whose operations are largely confined to the base. The civilian regional offices perform staff functions, while district and field offices correspond to line units. The IRS is responsible for the collection of tax funds for the Federal government. The regional office, which is concerned with management, includes administration, collection, intelligence, legal, and inspection sections. The district office, which covers Massachusetts, is the operational unit which deals directly with the individual taxpayer.

The VA provides medical services, benefit payments, and insurance for veterans, their beneficiaries, and dependents. The VA regional offices are regarded as the major public contact points for agency operations. The regional

office in Boston handles veterans' benefit and medical programs, including physical examinations, rehabilitation, applications, adjudication, and awards. The insurance program except for the filing of forms is not conducted locally.

The regional PO is the direct representative of the Postmaster General in New England responsible for resolving the postal problems of district offices. The Boston postal district is responsible for the collection and distribution of mail in twenty-five metropolitan cities and towns. The organization and services of the GSA have been described in Chapter II.

The military offices provide services in support of fleet operations and military installations. The activities of the Corps, however, bear a greater similarity to civilian than military agencies. The Corps has responsibility for land acquisition, engineering, and construction for the Army, Air Force, and Atomic Energy Commission. Its major undertakings are civil projects related to the development of harbors and streams, such as reservoir and dam construction, drainage improvements, channel dredging, and flood control projects. The Army Base houses seventeen office divisions in charge of procurement, recruiting, and auditing for the Army and the Air Force.

In the interviews discussion focused on the agency linkages to metropolitan Boston rather than the full scope

of regional activities. Metropolitan Boston represented the immediate service area of the agencies in relationship to public contacts, business activities, and employment.

3. The Linkages of Federal Agencies in Boston

a. Linkages Among Federal Agencies

The GSA, as property manager for the national government has the most varied and numerous contacts with other Federal agencies. Contacts in the form of written requests, telephone conversations, and meetings for additional office space are a daily procedure of the public building service. The most frequent customers ordinarily are the IRS, VA, and Department of Health, Education, and Welfare, because of their continuing adjustments in space needs and the operation of field offices. Last year the establishment of quarters for the Census Bureau was the most time-consuming activity, but requests for temporary space for emergency agencies and special surveys are an intermittent duty. GSA linkages with civilian agencies are stronger than with the military, because all civilian agencies are required to use its services. However, contacts with the armed services are not inconsequential for the building service uses military warehouse space, leases general purpose office space for the military, disposes of surplus military property, and, in the case of the Corps, manages and maintains its office establishment. The other GSA services, supplies, record storage, and transportation

also involve continual contact with Federal agencies. Seventy percent of the activity of the supply service is devoted to Defense Department requirements. The IRS is in constant contact with the record service, which is responsible for the storage of all income tax returns. The transportation service is involved in the shipment of materials from Federal supply warehouses to customer agencies. The transportation service is the major unit involved in goods movement and the only unit dependent on truck and rail facilities.

The Division of Disbursement of the Treasury Department, which is a modest office in size and employment, provides services for all civilian agencies, except the PO. The Disbursement Division performs banking functions for Federal agencies in the preparation of payrolls, the payments for business services, the granting of benefit assistance, and the administration of the savings bond program. Of the interviewed agencies the IRS, VA, and GSA maintain accounts with the Disbursement Division. Contact is scheduled to the bi-weekly payroll periods of Federal agencies. The three agencies supply employee payroll cards by messenger service and personal contact between officials is infrequent. Written contact with the VA includes the payment of veterans benefits as well as employee payrolls. The Army, Navy, Corps, and PO maintain their own finance

sections for disbursement operations.

All Federal agencies use the FO facilities, but have little or no contact with the regional or district postal offices. Deliveries and collections are handled in a routine manner generally undistinguishable from services to private enterprises. The IRS, VA, and the Army have mail volumes which often necessitate direct delivery to postal stations.

Apart from the GSA, Disbursement Division, and FO there is no discernible pattern of interaction among a group of Federal agencies. The IRS cited frequent contact with the United States Courts, and the VA with the Civil Service Commission, the Social Security Office, and the United States Employment Service. Within the Department of Defense interservice coordination is not evident in metropolitan Boston. Except for the Corps, which has jurisdiction over Army and Air Force land acquisition and construction, the military services have little contact with each other although some occupy the same quarters.

b. Linkages with Other Governments

The linkages of Federal agencies with other governments, state, county, and municipal, are less intense than those among the agencies. In general civilian agencies have stronger ties than the military services and interaction with state governments is commoner than with city

officials. The Army leases docking space, on the base to the Commonwealth, which serves as a state port facility, and negotiations are underway with the Boston Port Authority for the leasing of vacant warehouse space. Army civilian personnel upon request assist in Boston snow removal, while the city in turn provides fire protection for the base. The Navy works with state authorities in law enforcement involving naval personnel.

The Corps, VA, and GSA have the closest connections with other governments within their respective regions. The Corps has extensive contacts with state governments in regard to flood control and water development problems. The Corps, working with state boards, coordinates water resource planning, designs engineering facilities, supervises construction, and assumes responsibility for the operation of completed projects. Work with state governments result in frequent communications, travel, and meetings. In addition the Corps cooperates with municipal governments in local projects, such as the installation of small dams, the dredging of channels, and the construction of seawalls, which are maintained by the city or the Corps after construction.

The VA has daily, in-person contact with the state veterans hospitals and the state veterans organizations, the latter occupying space in its building. Frequent touch is kept by a VA liason officer with the State Department of

Education, which must approve training programs for veterans conducted by the administration. Relations with municipal governments are infrequent and indirect, limited to written inquiries about veterans' incomes to establish their eligibility for city housing projects and in-person applications by veterans for certification of wartime disability entitling them to property tax abatements in Massachusetts communities.

The GSA in conjunction with its building program has contact with municipal officials, mayors, engineers, and planners. As a public agency it attempts to select sites and propose construction in conformity with local zoning, planning, and sentiment, which necessitates frequent negotiations.

The IRS, which has little contact with state or city governments, was the only agency reporting connections with county governments. The IRS files tax liens in the county seats where property is registered, but this is not a significant part of its activities.

c. Linkages with Private Enterprise

To some degree all Federal agencies use the products and services of private enterprise in their daily operations. The Army, Navy, and Corps have the greatest impact on the metropolitan economy in transactions with manufacturing, research, and contracting firms. The Army alone estimated that in 1960 it had contracts with 375

private businesses in the Boston area for missile development, weapons production, and supply procurement, which amounted to \$300 million. In the same manner the Navy awards government contracts to local industry, especially in the field of electronics. In addition to preliminary negotiations contact is continual during the contract period involving military security, inspection, legal, and auditing personnel often working full-time at the company.

The Corps' business relationships, since they devolve around civil projects, are primarily with the construction industry, contracting, engineering, and architectural firms, rather than manufacturing industries. The actual construction work in projects undertaken by the Corps is contracted to private firms, while the Corps retains supervisory responsibility. The Corps frequently engages architectural and engineering firms for structural designs, especially in peak work periods.

The GSA's business associations are primarily in connection with its building and supply services. Leased space is acquired through real estate agents, brokers, and building owners. Real estate representatives, appraisers, and auctioneers are used, also, in site acquisition and property disposal. Contact is periodic involving written communications, telephone conversations, and personal meetings as space is required. In the procurement of agency supplies, equipment, and defense materials the GSA uses the

services of manufacturing and brokerage firms throughout the country.

The VA through its program of guaranteed loans to veterans is in continuous, daily contact with local real estate operators, banks, and lending institutions. Both the VA and the IRS have associations with members of the professional community representing agency clients. The VA has intermittent contact with lawyers, who serve as guardians for veterans. The IRS, on the other hand, has daily contact with lawyers and accountants seeking information or conducting negotiations on tax cases.

All agencies reported little need for outside business, banking, or consultant services. The agencies advertise mainly in Government publications and the IRS, GSA, and Navy have their own printing shops. The banking needs of Government agencies are supplied internally, although the IRS does place deposits in local banks. In all cases agencies employ full-time professional staffs and outside consultant studies are arranged in central offices.

The payrolls of Federal agencies, while difficult to evaluate as a contact, are another indication of agency interactions. A substantial percentage of employee salaries enter the retail sector of the economy. The present salaries of GSA and VA regional personnel each total \$5.8 million yearly. The IRS has a yearly payroll in New England of \$24.9 million. The Army estimates that its yearly pay-

ments for payrolls and business contracts are on the order of \$2 billion in metropolitan Boston.

d. Linkages with the General Public

Contact with the public at large takes two forms, direct service and public relations. The associations of the military services, apart from reserve training programs and recruitment, are limited to participation in civic conferences, contributions to fund drives, and membership in business organizations. The purpose of public participation is to publicize the work of the military and to convince the taxpayer that his dollar is well-expended.

The most significant public contacts are those of the VA and IRS, which offer direct information to their clients. The VA maintains a contact division in its Boston office and field locations. The contact division is visited daily by veterans, their wives, children, parents, and guardians seeking advice, applying for benefits, and filing claims. Besides personal interviews, telephone inquiries and written requests are received. For the month of February, 1961, the Boston regional office reported 7,815 telephone interviews, 4,177 personal interviews at the office, 647 field interviews, and 2,831 pieces of outside correspondence. In addition to recorded interviews the VA receptionist answers numerous simple questions without referral to a contact officer. It is of note that telephone inquiries exceeded all other forms of communica-

tion. A recent policy adopted by the VA prescribes that telephone requests are to receive as complete service as personal visits.

The frequency of IRS contacts is seasonal corresponding to the income tax payment period. The peak months are January through April, but inquiries are received during the entire year. The IRS offers direct assistance in the preparation of tax statements at both its downtown and Kenmore Square offices. Agency assistance is divided into three categories, telephone information, individual and self-help rendered in-person by IRS staff. Self-help consists of answering questions as the taxpayer fills out his form, while individual help, which is less common, consists of agency personnel preparing statements for taxpayers. The IRS in both its offices recorded a total of 22,000 cases of personnel assistance and 5,600 telephone calls in January, and 14,000 interviews and 34,900 calls in February. In both months the Kenmore Square office, the main center for district operations, reported more interviews and calls than the downtown location. Phone inquiries appear to take precedence over interviews as the filing date approaches.

4. Employee Characteristics

The most unusual characteristic of Federal agency office employment, in contrast to commercial offices, is the higher proportion of male than female personnel. The

1950 United States Census reported 7,558 males and 4,199 females in Federal public administration in the Boston SMA, exclusive of postal workers.¹⁴ While the ratio could not be verified, interviews with civilian agencies and the Corps confirmed the higher incidence of male employees. The explanation, in part, appears to be that Federal agencies have numerous positions requiring professional education, lawyers, engineers, and accountants. Furthermore non-clerical office positions, which do not require specialized training, are usually held by men possibly because of the status or security offered by Federal employment.

In contrast both the Army and Navy, which employ far greater proportions of civilian than military personnel in office work, reported a higher ratio of female employees. The military appear to require more secretarial and clerical assistance, and fewer professionals and administrators.

The mode of worker transportation varied with the location of offices in the metropolitan area. Downtown agency employees use transit, rail, and automobiles. Transit is the most used facility, while cars the least allegedly because of inadequate parking. The GSA operates an inter-agency motor pool and private cars are commonly used in agency work. In 1959 a survey of the travel habits of 25 percent of the Federal employees working in Boston was conducted.¹⁵ The survey, which polled only the GSA and PO

of the interviewed agencies, presented the following results: the Metropolitan Transit Authority's subways and streetcars (MTA) - 45 percent; trains - 34 percent; automobiles - 18 percent; buses 2 percent, and walking - one percent. Of those who drove cars to work 74 percent garaged them during office hours and 34 percent used their own cars on Government business.

The Army and Navy, located in South Boston, indicated a higher use of automobiles than downtown agencies during the course of interviews. The Navy, which has three parking lots accommodating 1300 cars, reported that approximately half of its employees drove to work. The Army, which has less ample parking areas, cited car pool arrangements. The MTA, which serves both the Army and Navy, provide subways to South Station and bus transportation to all military buildings, every three minutes during rush hours.

At the Corps' suburban location private automobiles are almost the exclusive mode of transportation and on-site parking is provided. The MTA, which offers transit connections to Waverly Center, provides only irregular bus service to the site.

5. The Automation of Federal Office Operations

The Federal agencies which were interviewed reported the use of electronic office equipment for internal reporting and communications. Small accounting machines, used in auditing, payroll, and personnel procedures, are

rented by all agencies. The VA has the largest machine installation servicing all New England operations.

Computer installations, however, are not a part of local agency activities. Electronic data processing equipment is located at service centers throughout the country. The IRS has computer installations at Lawrence, Massachusetts, which processes tax statements for the entire eastern seaboard, and a national center at Martinsburg, Virginia. The VA's insurance program is handled through a national center located in Philadelphia. A computer center under the auspices of the Treasury Department now under construction will handle VA benefit payments and IRS tax refunds. The Federal policy governing the location of computer service centers appears to be based on mail service, geographic centralization, the availability of space and a surplus labor force.

Chapter V: Locational Requirements and Locational Proposals

1. Locational Preferences

Locational preferences of interviewees ranged in specificity from no opinion to "just off the Central Artery midway between North and South Stations." Downtown agencies expressed satisfaction with their locations, commenting favorably on centrality, metropolitan accessibility, and transit facilities. Criticism was directed toward the inadequacy of parking and in the case of the VA and IRS, who share an obsolete building, the quality of space. The VA also requires some on-site parking or off-street driveways for handicapped veterans, which is unobtainable in its downtown location. While both the regional and district offices of the IRS occupy the same building administrative policy suggests physical separation. It is felt that when the managerial and operating levels are together the district office tends to rely unnecessarily on the regional office for supervision. The GSA favored the location of its five services under one roof, because all serve the same clients, other Federal agencies, although the services do not interact to a high degree internally.

The Army and Navy accepted their present locations in South Boston, peripheral to the downtown area, but for different reasons. In terms of naval operations the impor-

tant factor was the availability of a large building which could house all office functions supporting the fleet. A single location was deemed essential to the decision-making process, because it reduced time and security problems and facilitated exchanges among different organizational levels. For these reasons the present Navy Building was considered ideal. The location of office activities at a naval installation was not regarded as important a requirement as the availability of convenient transportation for employees and official visitors.

The Army, on the other hand, considered the on-site location of office facilities essential, because of the diversity of its administrative activities. The purpose of its office functions is to maintain the Boston Army Base and other locations were regarded as inappropriate. In addition the use of the space at night for the weekly training of 5,000 reservists, requiring parking spaces, classrooms, and special equipment, was cited. The larger office building on the base, originally constructed as an Army warehouse, is partly vacant at the present time.

Both the Army and Navy stated that the costs of rental space in downtown locations would be prohibitive and expressed reluctance to occupy privately-usable, taxpaying property.

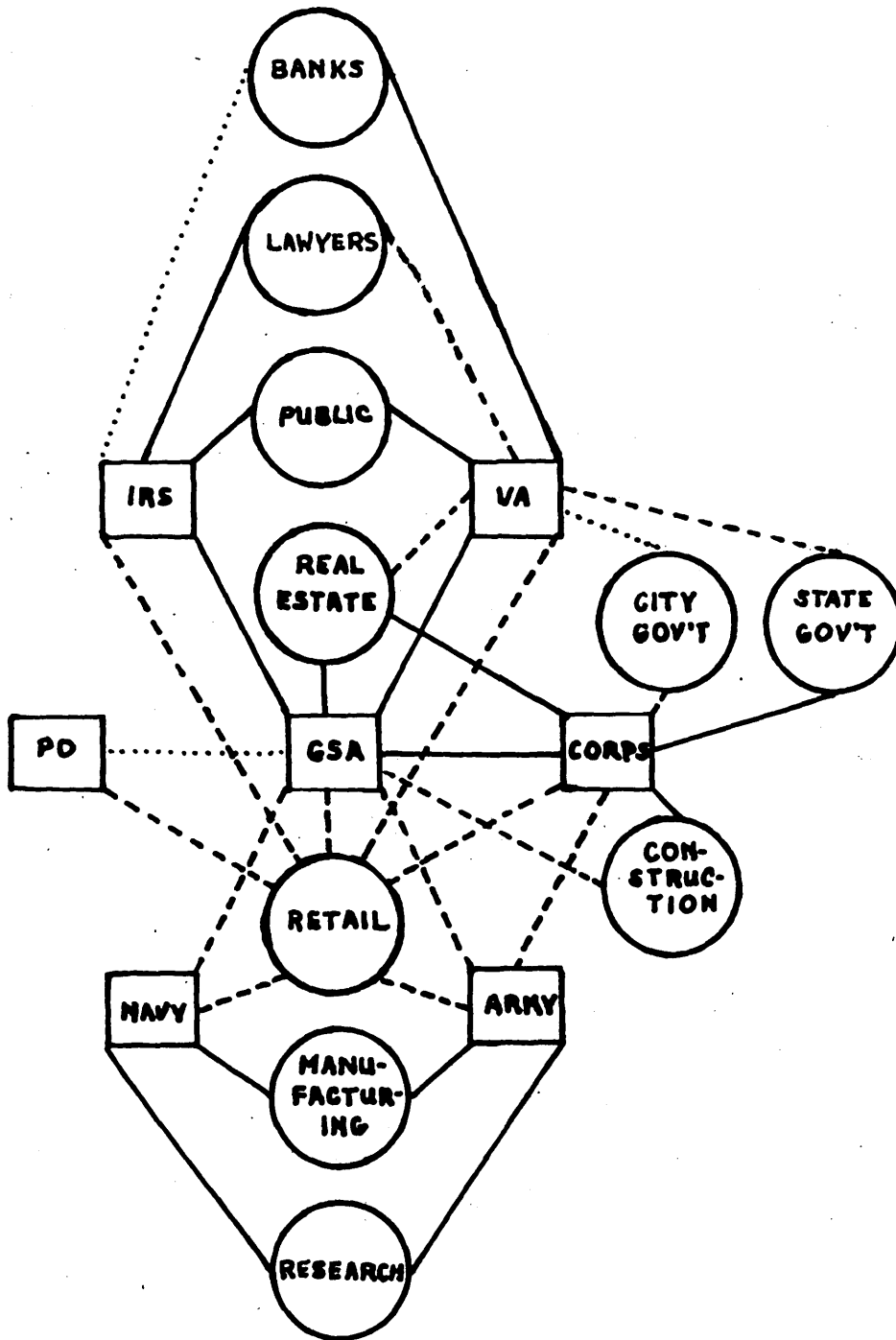
The case against suburban relocation was voiced by the Corps. Less than three years ago the Corps moved its regional office from Boston to suburban locations and

regional office from Boston to Waltham. The relocation was apparently dictated by political rather than administrative considerations, and the Corps objected without success to the transfer. The present location, a former Army hospital, consists of a group of one-story buildings in a campus setting. The Corps' objections have not subsided since its occupancy of the site. The major objection to the location is its inaccessibility to the Corps' clients, state and municipal governments, and business associates, contractors and engineers. Further the Corps has found the location difficult in terms of employment, resulting in vacancies, a high turnover rate, and increased absenteeism. Worker satisfaction with the location was reported as high except during winter snowstorms. The preferred location of the Corps' administration is a downtown site convenient to highways and transit system, accessible to the labor force and business contacts.

2. Criteria for Location Based on Linkages

While the largest Federal agencies in metropolitan Boston are regional headquarters doing administrative work, their internal operations and external relationships cannot be reduced to common locational requirements. The analysis of linkages, which is summarized in Diagram I, provides a method for differentiating the locational requirements among the several agencies. The locational policies of the Federal government are conceived in terms of

DIAGRAM I: FEDERAL AGENCY LINKAGES



DEGREE OF INTERACTION: — HIGH, --- MEDIUM, LOW

public service, but direct, personal contact with the general public is not necessarily characteristic of agency activities. Although contact is perhaps the most valuable method of classifying linkages, a system of publics, as clientele, customers, and business associates, can be identified.

Agencies which deal directly with the public intensively and continually, such as the VA and IRS, have the most easily recognized locational requirements. Direct public contact agencies require locations within walking distance of transit facilities and parking terminals and proximity to highways. A downtown location serves the customers of the IRS and the VA based on the agencies' limited information about office visits. Both agencies rely on field offices which do a far smaller volume of business than the main Boston offices.

The second classification would be agencies serving special publics, supplying particular professional or official groups with information and advice. The Corps in its extensive relationships with non-Federal governmental officials and the IRS in its dealings with lawyers and accountants fall into this category. The Corps' contacts with other governments require convenient access to major highways since travel is a vital part of its operations. The IRS's special public, professionals, are situated in downtown offices within walking distance of one agency office.

Third are business contacts essential for the agency to perform its activities, such as firms which provide products or services to the agency. Business contacts, usually associated with the building trades and real estate, are used by the Corps and GSA. Characteristically such occupations, appraisors, auctioneers, engineers, real estate brokers, and contractors, are found in downtown offices. The Army and the Navy have business contacts mainly with the electronic industries located outside of Boston. The external economies of business services and expert advice, which the city offers, are not used by Federal agencies.

The fourth type of contact, represented by the GSA, is inter-agency. Although the GSA does require the services of business organizations, its contacts with the general public, the financial community, and state governments are negligible. Its major locational requirement is proximity to other Federal agencies because of its service and managerial responsibilities. The Corps in its property acquisition also serves other agencies, the Army, Air Force, and Atomic Energy Commission. In contrast to the GSA ease of travel is more important than proximity to the Corps, because its work involves the surveying of potential sites and the supervision of facilities in various locations.

The weakest contacts are those experienced between Federal agencies and other governments in Boston. There is no reason based on functions or linkages why Federal agen-

cies should seek locations in or near the civic center. Within the metropolitan area the GSA has the closest ties with other city governments and within the region the Corps has the closest contacts with state governments.

The Army and Navy represent Federal agencies without contacts with the general public, except for Government contracts with industrial firms. In terms of external linkages their locational practices are potentially the most flexible.

3. Proposals for the Location of Federal Offices

Within metropolitan Boston, as in any large urbanized area, various locations for Federal office use are available__the central city, the inner ring communities, and the suburbs. Suburban locations offer low site costs, good highway access, and ample parking. Federal office use in inner ring communities would disperse Government employment, improve the utilization of MTA facilities, and provide local renewal impetus. But regardless of the attributes of other locations, Boston's central business district most adequately fulfills the requirements of Federal agencies based on the criteria of linkages.

The location of agency offices in Boston present advantages for both the city and the Federal government. Boston is an appropriate environment for regional office activities encompassing New England, which is the operational area of the local Federal agencies. The major re-

quirement of Federal agencies is accessibility to its service area, clientele, employees, and business associates. Because of the diversity of Federal agency interaction, accessibility can be optimized in central Boston. Linkages with employees, the general public, and other governments are facilitated by the rapid transit system, railroad facilities, and arterial highway connections. Linkages with commercial organizations, which are characteristically other office uses, suggest proximate locations to established business districts. The presence of retail stores, restaurants, and banks is another downtown asset. The largest suburban agency found it necessary to compensate for its location by providing shops, a bank, and cafeteria as well as on-site parking.

The city of Boston, particularly its central business district is confronted by myriad problems. The increase in automobile use and the decrease in MTA passengers has created severe traffic congestion. A rising tax rate and a shrinking tax base has resulted in the decline of property values, the persistence of obsolete buildings, and fiscal hardship for the municipal government. Further the retail core has experience a relative decline in its share of metropolitan business. But the city has maintained its position as a center of office employment and a seat of government.

The location of Federal offices can be an effective

instrument in the implementation of urban planning. The Federal government can contribute to the alleviation of Boston's problems and play a part in the revitalization of the city by judicious locational policies. Such a course of action necessitates the revamping of certain policies prescribed by the Federal government, but involves no compromise of agency locational requirements.

Two broad choices are open to the Federal government in regard to its location in the central business district -- the concentration or diffusion of Governmental offices. Concentration would place all Governmental office potential in one location, possibly in the development of a complex of buildings as a Federal government center. Diffusion would scatter Federal agency offices in various buildings throughout the central business district.

A concentrated Federal center would establish a symbol of Government prestige, eminence, and service to the public. A center on a downtown site would inject customers into the retail core, stimulating department store, specialty shop, and restaurant trade. Since the proposed location coincides with the major subway nexus, it would provide convenient MTA service for employees and clientele. Because of the present land use arrangement such a location would be within walking distance of allied business organizations and professional firms. Concentration might promote movement among Federal agencies and contact with city

and state governments, although neither is a basic part of agency interactions at present. The transfer of all military agencies to the central business district would be a concomittant of concentration.

Concentration, in a less extreme form, is the policy pursued by the GSA in the acquisition of office space. While the concentration of Federal office uses in downtown Boston would strengthen the retail district, increase employment, and possibly benefit the MTA, the policy would bring certain disadvantages. It would increase congestion in the area of the city with the highest structural density and severest traffic problems, and add to the already appreciable amount of institutional land. A modified form of concentration in two locations, such as downtown and Back Bay, might relieve congestion and achieve a better distribution of transit and highway use.

The policy of diffusion could have a greater impact on reviving the central business district than concentration. Federal office use lends itself to diffusion, because of the particularized locational requirements of each Federal agency. Since agency interaction is not a prime factor, locational decisions can be based on accessibility to clients, business associations, and other governments in terms of the individual agency. Nor would diffusion inconvenience the public as referral from one agency to another is uncommon. The Federal government would have to

sacrifice the prestige of a prominent building and possibly some economies in building management, but diffuse locations could promote more efficient linkages.

A policy of diffusion might result in the following locations in the central business district for the interviewed agencies. The pattern suggested is diffuse, but the arrangement is not random. The locations correspond to external linkages demonstrated by the current activities of the agencies. The space occupied might be either in separate buildings for each agency, in quarters shared by two agencies with similar requirements, or leased space.

Available information indicates that transit service is a major asset for Government agencies which deal consistently and frequently with the general public. For the IRS and the VA a location near an MTA station is a major requirement. Locations near the Part Street station, a major subway terminal and transfer point, on Tremont Street would fulfill the need. The parking facility under the Boston Common, which is now in the process of construction, would provide an alternative within walking distance of the agencies for clients who choose to drive. The proposed location would also support agency linkages with downtown law firms and financial institutions.

Proposals for relocating the office functions of the Corps, the Army, and the Navy in the central business district are hypothetical. While the Corps would benefit from

the transfer, the Army and the Navy appear to be well-served in their present locations. The Corps' requirements of proximity to engineering and construction firms and accessibility to state governments throughout the region would be strengthened in a downtown location. To enhance its business and governmental linkages a site near downtown offices and the Central Artery and not too distant from South Station, possibly in the vicinity of the Customs House, is suggested. While the present locations of the Army and the Navy are advantageous in terms of quantity and cost of space, their linkages to the electronic industry and convenience to visiting military personnel might be improved in another location. Locations nearer to the Sumner Tunnel and Mystic River Bridge, perhaps in Haymarket Square or the North End, would be more accessible to the research and electronic industries on Route 128 and the transportation facilities of Logan Airport than the present South Boston sites.

The strongest interactions of the regional office of the Post Office Department are within the administrative framework of its own organization and outside linkages are weak. Therefore regional office activities exhibit no special downtown locational requirements. The regional office can function anywhere in the central business district and the central location which it now occupies seems unwarranted.

The GSA's major locational requirement is accessibility to other Federal agencies. Its present location in the Post Office Building seems well-suited to the locations sug-

gested above for the other agencies. The Post Office Building is also near real estate operators and convenient to regional transportation routes, additional requirements of GSA.

Federal buildings in diffuse locations would also be effective in achieving the objectives of central business district renewal, because of the extent of blight, obsolescence, and deterioration in the city. Further a Federal policy of diffusion might stimulate private renewal efforts throughout the central business district instead of just in the government center or office area. Several alternatives are possible under a policy of diffusion. The Federal government might construct a dozen buildings throughout the central business district to be occupied by the largest agencies. Multiple buildings would distribute employment, retail stimulus, and MTA use to various parts of the business district, and promote renewal in a variety of locations. Another possibility is to combine the construction of small Federal office buildings with an increase in the rental of privately-owned space.

Still another alternative would be to implement the policy of diffusion exclusively by renting. As a renewal action the Federal government might abandon future construction, retain sound office property, sell obsolete office buildings, and lease all additional space. A program could be devised whereby the Federal government encourages the construction of privately-built, new office buildings, a

vital city need. The Federal government could offer a guarantee prior to construction of rental occupancy on a long-term lease in new buildings with other office uses. The Government would be safeguarded by specifying preferred locations, floor space requirements, and interior layouts before giving its guarantee. In addition to meeting the locational requirements of Federal offices a rental policy in the central business district would maintain taxable property in the city. Thus the choice of locational policies can be strengthened by consideration of the merits of renting or building. A rental program could be followed in a concentrated governmental center, but its impact as a widespread effort to encourage private renewal would be reduced.

The argument can be raised that leased space would be more costly for the Federal government than building ownership, and may well be true. The GSA plans to spend a considerable sum of money in New England for office construction within the next fifteen years, approximately \$200 million. A portion of Boston's share might be allocated to increased Federal occupancy of new, leased space. Since Government construction is in part a public works activity for assisting the local economy, the city of Boston would be better served in its planning and renewal efforts by a policy of diffusion backed by a program of guaranteed rental.

Federal office uses by tradition locate within the central business district and the appropriateness of the locational choice has been confirmed by this study. However, within a city the size of Boston alternative locations within the central business district are possible. Federal sites near existing government centers appear to be unnecessary for regional headquarters, while the need for proximity to business offices is generally overlooked. Although accessibility to the general public is an established Government criterion of location, the majority of Federal agencies do not appear to meet the public directly. For the few agencies which do the standards of accessibility cannot be fully met without additional data on the characteristics of the visiting clientele. Since part of agency operations involve metropolitan and regional meetings, more information is needed on the frequency, distance, and modes of travel by Federal personnel on official business. The present study suggests that the optimum location for Federal office use, both in terms of fulfilling the locational requirements of individual Governmental agencies and promoting the renewal efforts of the city, is in diffuse sites throughout the central business district of Boston.

FOOTNOTES

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