

728.1
:308
F22
Boston,
Mass.
1971

Analysis of the
BOSTON, MASSACHUSETTS
HOUSING MARKET

as of January 1, 1971 DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT

JUL 26 1971

LIBRARY
WASHINGTON, D.C. 20410

A Report by the
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL HOUSING ADMINISTRATION
WASHINGTON, D. C. 20411

July 1971

FHA Housing Market Analysis

Boston, Massachusetts, as of January 1, 1971

Foreword

This analysis has been prepared for the assistance and guidance of the Federal Housing Administration in its operations. The factual information, findings, and conclusions may be useful also to builders, mortgagees, and others concerned with local housing problems and trends. The analysis does not purport to make determinations with respect to the acceptability of any particular mortgage insurance proposals that may be under consideration in the subject locality.

The factual framework for this analysis was developed by the Economic and Market Analysis Division as thoroughly as possible on the basis of information available on the "as of" date from both local and national sources. Of course, estimates and judgments made on the basis of information available on the "as of" date may be modified considerably by subsequent market developments.

The prospective demand or occupancy potentials expressed in the analysis are based upon an evaluation of the factors available on the "as of" date. They cannot be construed as forecasts of building activity; rather, they express the prospective housing production which would maintain a reasonable balance in demand-supply relationships under conditions analyzed for the "as of" date.

Department of Housing and Urban Development
Federal Housing Administration
Economic and Market Analysis Division
Washington, D. C.

FHA HOUSING MARKET ANALYSIS - BOSTON, MASSACHUSETTS
AS OF JANUARY 1, 1971

For purposes of this analysis, the Boston, Massachusetts, Housing Market Area (HMA) is defined to include the 17 cities and 61 towns that comprise the Boston Standard Metropolitan Statistical Area (SMSA). The HMA includes all of Suffolk County and portions of Essex, Middlesex, Norfolk, and Plymouth Counties. For purposes of discussion, the HMA has been divided into four broad geographic areas which have been termed the Central, Northern, Western, and Southern Submarkets. According to the final census population count, the population of the HMA was 2,753,700 as of April 1, 1970. Among the submarkets of the HMA the population was as follows: Central Submarket, 891,384; Northern Submarket, 900,773; Western Submarket, 459,273; and the Southern Submarket had a population of 502,270 persons. See Appendix A for a distribution of the cities and towns in the HMA by submarket area.

Rapid employment growth since 1964, coupled with a declining rate of new residential construction in the HMA in the latter half of the 1960's, has resulted in a sharp decline in the level of sales and rental vacancies in the HMA in recent years. In 1970, however, employment growth in the HMA slowed to the lowest rate of increase since the early 1960's, and similarly slow employment growth is forecast for 1971 and 1972. The declining rate of economic growth during 1970 is attributed largely to cutbacks in defense spending for research and aerospace activities in the Boston area. Although the employment declines in the electronics industry will have an impact

on several communities along Route 128, the projected rate of household growth in the HMA during 1971 and 1972 is only slightly below the average annual rate of increase that occurred during the 1960 decade. Because the work force of the Boston area contains many commuters from outside the HMA, abrupt changes in the level of employment growth in the HMA have not, in the past, resulted in significant short-run deviations in household growth trends in the HMA.

Anticipated Housing Demand

The demand for new housing in the Boston HMA during 1971 and 1972 is based primarily upon the projected level of household growth and inventory losses anticipated as a result of demolitions for urban renewal programs, highway construction, and code enforcement. After considering these and other factors such as the current vacancy situation, recent shifts in tenure, and current and prospective trends in new residential construction, it is estimated that there will be a demand for an average of 9,500 new nonsubsidized housing units annually in the HMA during the two-year forecast period ending January 1, 1973. Based on the aforementioned factors, it is judged that the most favorable market balance would be achieved if 3,500 units were supplied as single-family homes and 6,000 as units in multifamily structures. A distribution of the nonsubsidized sales demand by price range and the rental demand by unit size and monthly gross rent is shown in table I. The following table presents the estimated annual quantitative demand for new nonsubsidized housing in the major submarkets of the HMA during the next two years.

Estimated Annual Demand for New Nonsubsidized Housing
Boston, Massachusetts, Housing Market Area
January 1, 1971 to January 1, 1973

<u>Area</u>	<u>Single-family units</u>	<u>Multifamily units</u>	<u>Total</u>
Central Submarket	100	1,400	1,500
Northern Submarket	900	1,550	2,450
Western Submarket	800	1,250	2,050
Southern Submarket	<u>1,700</u>	<u>1,800</u>	<u>3,500</u>
HMA total	3,500	6,000	9,500

The level of demand for nonsubsidized multifamily housing shown in the preceding table is well below the average annual volume of new apartment construction in the HMA in recent years, particularly in the Central Submarket. However, multifamily construction activity in the HMA since the mid-1960's has included several thousand units provided through a variety of subsidized federal and state programs. Thus, the demand for an average of 6,000 new nonsubsidized multifamily units in the HMA during 1971 and 1972

is only slightly below the average of approximately 6,300 nonsubsidized apartment units authorized by building permits each year during the 1965-1970 period. However, in view of the rather large estimated occupancy potential for Section 236 housing (discussed on page 5), it would be prudent to observe carefully the absorption of new nonsubsidized units, particularly those at the lower end of the rent scale. It should be recognized that the estimates shown above are not predictions of short-run residential construction activity; rather, their intent is to show levels of construction that would, given the economic, demographic, and housing relationships discussed in this report, maintain a balanced demand-supply relationship in the Boston area during the next two years.

Occupancy Potentials for Subsidized Housing

Federal assistance in financing housing costs for low- and moderate-income families may be provided through a number of programs administered by the FHA: monthly rent supplements in rental projects financed with market-interest-rate mortgages under Section 221(d)(3); partial interest payment on home mortgages insured under Section 235; partial interest payment on project mortgages insured under Section 236; and federal assistance to local housing authorities for public low-rent housing. Monthly rent supplements also can be provided for a limited number of units in rental projects insured under the provisions of Section 236.

The estimated occupancy potentials for subsidized housing are designed to determine, for each program, (1) the number of families and individuals who can be served under these programs and (2) the proportion of these households that can reasonably be expected to seek new subsidized housing during the two-year forecast period. Household eligibility for the Section 235 and Section 236 programs is determined primarily by evidence that household or family income is below established limits, but sufficient to pay the minimum achievable rent or monthly payment for the specified program. For rent-supplement accommodations or low-rent public housing, all families and individuals with income below specified income limits are assumed to be eligible. Some families may be alternatively eligible for assistance under one or more of these programs or under other assistance programs using federal, state, or local support. The total occupancy potential for federally-assisted housing in the Boston HMA approximates the sum of the potential for public low-rent housing and Section 236 housing. As shown in table II, the total occupancy potential in the HMA is estimated to be 12,200 units annually during 1971 and 1972. Future approvals under each program should take into account any intervening approvals under other federal or state programs which serve the same families and individuals.

The annual occupancy potentials^{1/} for subsidized housing discussed below are based on estimated 1971 incomes, the occupancy of substandard

^{1/} The occupancy potentials referred to in this analysis have been calculated to reflect the strength of the market in view of existing vacancy. The successful attainment of the calculated potentials for subsidized housing may well depend upon construction in suitable accessible locations, as well as a distribution of rents and sales prices over the complete range attainable for housing under the specified program.

housing, income limits in effect on January 1, 1971, and on available market experience.^{1/}

Sales Housing Under Section 235. Sales housing can be provided for low- to moderate-income families under the provisions of Section 235. Based on exception income limits, it is estimated that an average of about 4,500 houses could be absorbed in the HMA annually during 1971 and 1972. However, land, construction, and development costs prevalent in the HMA severely limit the production of new housing under this program at the present time. In the foreseeable future, the best opportunities for the utilization of this program in the Boston area will be in the rehabilitation and sale of existing units.

Rental Housing Under the Public Housing and Rent-Supplement Programs. These two programs serve households in essentially the same low-income group. The principal differences arise from the manner in which net income is computed for each program and from other eligibility requirements. For the Boston area, the annual occupancy potential for public housing is estimated to be 2,775 units for families and 3,985 units for the elderly, a total of 6,760 units. None of the families eligible for public housing are eligible for Section 236 housing, but about 25 percent of the elderly eligible for public housing also qualify under Section 236. Under the rent-supplement program, the potential for families would be about 45 percent of the figure shown above; the market among the elderly would remain unchanged.

Public low-rent housing has been developed in Massachusetts under both federal and state programs. Under the federal program, as of January 1, 1971, there were approximately 18,100 units under management in the HMA, including 3,400 units designed specifically for elderly occupants. An additional 540 units were under construction, and construction was expected to begin on an additional 1,175 units sometime in 1971. Vacancy rates are very low, except in the city of Boston where the ratio has been about five percent in recent months. These vacancies were concentrated in a few projects which are subjected to high rates of crime and vandalism. Under the state program, public housing has been provided under programs for both veterans and the elderly. The program for veterans has been inactive for several years; the elderly housing program was initiated in 1954 and is in operation at the present time. Under these programs, approximately 9,900 units of veteran's housing and 5,925 units of elderly housing were in the HMA in January 1971, a total of 15,825 units. An additional 520 units of housing for the elderly were under construction in January 1971. Under both public housing and rent-supplement programs, a total of 1,310 units will be completed during 1971, including 540 units of federal low-rent public housing, 520 units of elderly housing provided under the state low-rent program, and 250 units of rent-supplement housing. The occupancy potential delineated in table II is well in excess of the number of public housing and rent-supplement units expected to be completed in the HMA during 1971.

^{1/} Families with incomes inadequate to purchase or rent nonsubsidized housing generally are eligible for one form or another of subsidized housing.

As of January 1, 1971, approximately 850 units in the Boston HMA were receiving supplemental rents under the federal rent-supplement program. Further activity under this program in 1971 and 1972 will be in housing produced under Section 236.

Rental Housing under Section 236^{1/}. Moderately-priced rental units can be provided in the Boston HMA under Section 236. With exception income limits, there is an annual occupancy potential for 6,425 units of Section 236 housing, including 4,500 units for families and 1,925 units for elderly households. The annual total would be reduced to approximately 4,050 units (2,375 family; 1,675 elderly) if regular income limits were utilized. None of the families eligible for Section 236 housing are eligible for public housing, but about one-half of the elderly households and individuals would qualify for public housing or rent-supplement accommodations.

As of January 1, 1971, two Section 236 projects containing 280 units had been completed in the Boston HMA. Several projects containing an additional 1,125 units were under construction, and the Boston HUD Area Office had issued firm commitments on projects having a total of 1,325 units. Of the units under construction, 230 are in projects scheduled for completion during 1971 and 900 units are to be completed in 1972. Of the Section 236 activity to date, 55 of the units completed, 250 of the units under construction, and 155 of the units for which firm commitments have been issued have reservations to receive rent supplements. Construction under the Section 221(d)(3) BMIR program (now being phased out) also has been significant in the HMA. Because of similar family size and income requirements, most of the families and individuals eligible for housing produced under Section 221(d)(3) BMIR also are eligible for housing developed under Sections 235 and 236. As of January 1971, there were approximately 9,050 units of Section 221(d)(3) housing in the HMA, of which two-thirds had been provided through new construction and one-third through the rehabilitation of existing structures. An additional 1,725 units will be completed during 1971, (including 485 units in rehabilitated structures) and 610 units (all new construction) are scheduled to be completed during 1972. Firm commitments have been made for an additional 800 units, which, when built, will complete the Section 221(d)(3) program in the HMA insofar as new construction is concerned. A March 1970 survey conducted by the Boston HUD Area Office reported few vacancies in the Section 221(d)(3) BMIR projects completed as of that date. In summary, it is expected that about 3,050 units will be completed under both programs in 1971, a total which is within the estimated annual occupancy potential for such housing in the HMA.

^{1/} Interest reduction payments may also be made for cooperative housing projects. Occupancy requirements under Section 236 are identical for tenants and cooperative owner-occupants.

The Sales Market

As measured by building permits, the construction of single-family homes in the HMA declined from about 7,775 units in 1960 to an annual rate of fewer than 3,000 in 1970. The decline occurred in all submarkets of the HMA, but was somewhat less pronounced in the Southern Submarket because of the availability of open land suitable for subdivision development in that area. Coupled with the decline in new construction activity, the sales vacancy rate in the HMA declined slowly between 1960 and 1966, then declined more rapidly as employment growth accelerated in the HMA. As shown in table IX, the sales vacancy rates in the HMA in January 1971 were highest in the Central and Southern Submarkets (0.8 percent). Sales vacancy rates in the Northern and Western Submarkets were very low in early 1971 (0.5 percent and 0.3 percent, respectively). Despite the many layoffs at electronics firms along Route 128, there was no apparent softening of the sales market in the Boston suburbs during 1970.

The declining level of new construction in the HMA during the last decade appears to have been adequate to meet the demand for new housing in the higher price ranges, but not in the middle and low price ranges. Unsold inventory surveys conducted each January in recent years by the Boston HUD Area Office indicated that an increasing proportion of the new units completed were priced at \$30,000 and above. The surveys indicated that the proportion of units priced above \$30,000 comprised 80 percent of all completions in 1969, as compared with only 43 percent in 1967. Less than nine percent of all units surveyed in January 1970 were priced below \$25,000, as compared with 21 percent of all units surveyed in January 1968. The sharp increase in typical sales prices which reflect increased costs of land, labor, materials, and financing, has precluded the development of Section 235 sales housing in almost all areas of the HMA. There was a moderate increase in the proportion of unsold speculatively-built new homes in the HMA between 1969 and 1970; however, most of these were homes priced at \$35,000 and above, and this was not considered to be especially significant because higher-priced homes normally take longer to market.

In recent years, more new single-family homes have been constructed in the Southern Submarket than in any other area. Partial results of the January 1971 unsold inventory survey indicate a continuation of this trend. New construction of moderate-priced homes (\$22,500 to \$30,000) in this submarket was concentrated in the towns of Pembroke and Hanover. The towns of Braintree and Randolph had a number of new units completed in the \$30,000 to \$45,000 price range, while more expensive homes (\$45,000 and up) were constructed in Canton and Milton.

The Rental Market

The rental vacancy rate in the Boston HMA declined steadily during the last decade. As shown in table IX, the vacancy ratio in the HMA, which was 4.0 percent in April 1960, declined to 3.1 percent in October 1966, then

to only 1.7 percent in January 1971. During the 1960's, the annual rate of household growth in the HMA exceeded that of the population; many of these households were young newly-formed households whose shelter needs were best accommodated by rental housing. In addition, the rising costs of homeownership have priced some families out of the sales market and has persuaded many others to postpone buying until more favorable mortgage terms become available. In this regard, the recent declines in FHA, VA, and conventional interest rates will undoubtedly encourage some renter families to consider the purchase of a home, but factors which will inhibit this in the Boston area include the current tight sales market situation, the sharp decline in new single-family construction in recent years, and the concentration of units in higher price ranges.

As shown in table VIII, multifamily construction in the HMA has been significant in recent years. Over 60 percent of the units authorized by building permits in the HMA during the latter half of the 1960 decade were in multifamily structures. Between 1965 and 1969 an average of 8,000 units in multifamily structures was authorized annually in the HMA, including a substantial number of public low-rent housing projects, state-assisted elderly housing projects, and FHA Section 221(d)(3) BMIR housing. Available market data indicate satisfactory absorption experience in almost all rent ranges and locations. With the exception of a few public housing projects in Boston subjected to deteriorating neighborhood conditions and high crime rates, the vacancy rate in low-rent housing projects is very low in the HMA at the present time. The occupancy surveys of FHA-insured apartment projects, conducted in March of each year by the Boston HUD Area Office, indicate a downward trend in vacancy in recent years. The March 1970 survey covered nearly 16,950 units, of which 240 (1.4 percent) were vacant. Most of the units included in the survey were in moderate- to high-rent projects completed since 1960 under Sections 207 and 220, or were units insured under Section 221(d)(3) BMIR. Another indication of the tight rental market situation in the HMA at present is the one percent vacancy factor in 5,000 rental units in the HMA that are managed by a local management firm. Most of the aforementioned vacancy data are in projects located in the city of Boston. Rental data available for the suburban areas also indicate that there is a low rental vacancy rate in the HMA. Although the recent decline in manufacturing employment affected many workers living in apartments in the suburbs, no appreciable increase in vacancy occurred in these areas during 1970.

Typical rents in recently-completed apartment projects in the HMA vary considerably. In the Central Submarket, where many of the newer apartments are in high-rise structures, rents range from between \$165 and \$210 for efficiencies, \$215 and \$275 for one-bedroom units, and \$330 and \$420 for two-bedroom units. In the Northern Submarket, typical rents in the newer projects, which include a mixture of high-rise, garden, and townhouse structures, range between \$145 and \$180 for efficiencies, \$180 to \$250 for one-bedroom units,

and \$250 and \$350 for two-bedroom units. In the Western and Southern Submarkets, monthly rents in the newer developments (mostly garden apartments) are somewhat lower at about \$145 to \$160 for efficiencies, \$185 to \$200 for one-bedroom units, and \$210 to \$225 for two-bedroom units.

Economic, Demographic, and Housing Factors

The estimated demand for new housing in the Boston HMA during 1971 and 1972 is predicated on the following findings and assumptions related to economic factors, income, demographic patterns, and trends in the housing market.

Employment. Economic trends in the Boston HMA during the 1960 decade can be divided into three distinct periods. Between 1960 and 1963, a period that included a national economic recession, increases in wage and salary employment averaged 6,300 a year. In the mid-1960's (1964-1967), a combination of increased government spending for defense-related activities and cuts in personal and business taxes stimulated an increase in employment that averaged 39,250 annually over the three-year period. In the late 1960's, employment growth was much more moderate than in the 1964 to 1967 period but still compared quite favorably with most other post-World War II periods. As shown in table III, wage and salary employment in the HMA increased by a total of 23,700 between 1967 and 1968 and by 22,300 between 1968 and 1969. However, the economic situation in the Boston area changed dramatically during 1970, as can be ascertained from a comparison of employment data for twelve-month periods ending November 1969 and 1970 (see table III). Although the increase in the civilian work force during this period compares favorably with average annual increases in the work force since 1966, the number of unemployed persons increased by about one-third, and the gain in wage and salary employment (13,300) indicates that the annual rate of employment growth in the Boston area is at its lowest level since the early 1960's.

Manufacturing employment in the HMA averaged 304,400 in 1967, a post-1960 high, then declined by 7,900 and 4,300 in the succeeding two years. During the twelve-month period ending November 1970, manufacturing employment averaged 278,800, a decrease of 14,600 from the average for the December 1968-November 1969 period. This was the sharpest decline in the level of manufacturing employment in the HMA since the early 1960's. Most of the employment decline during the last year was in durable goods, especially electrical machinery and transportation equipment, and can be attributed directly to the curtailment of spending for national defense and aerospace activities. Layoffs following the settlement of labor management disputes also had an adverse effect on the Boston economy during 1970. The decrease in employment in nondurable goods reflects the continuation of a long-run decline in industries such as textiles, apparel, and leather products. The

1969-1970 decline, which was larger than usual, could be attributed primarily to the closing of a large rubber products firm and several small shoe manufacturing companies. Many local firms in these industries can no longer meet foreign competition because of old, obsolete physical plants and high unit labor costs. The food products and printing industries have been the most stable of all nondurable goods industries during the past several years.

Increases in nonmanufacturing employment in the HMA have been fairly constant in recent years. As shown in table III, annual increases were 31,600 between 1967 and 1968, 26,600 between 1968 and 1969, and 27,900 between the twelve-month periods ending November 1969 and November 1970. The level of construction employment has changed little since the mid-1960's, but employment in all other nonmanufacturing groups, particularly services, has trended steadily upward. Employment increases in services averaged 14,800 yearly between 1966 and 1969, accounting for nearly one-half of the total increase in nonmanufacturing employment during that period. The service category in the Boston area includes the educational, medical, engineering, and research and development activities which have become of increasing importance to the Boston economy during the last twenty years. As a proportion of total nonfarm employment in the HMA, nonmanufacturing employment increased from less than 72 percent in 1960 to over 77 percent in 1969.

The level of unemployment and the rate of unemployment in the Boston HMA trended downward between 1961 and 1966, and was fairly stable during the 1966-1969 period. As shown in table III, the rate of unemployment ranged between 3.2 percent and 3.6 percent between 1966 and 1969, and the level of unemployment ranged between 45,200 and 47,900. However, during 1970 unemployment rose sharply to its highest level since 1964. Unemployment rose by one-third, from an average of 45,700 persons (3.2 percent) during the December 1968-November 1969 period to an average of 60,300 (4.1 percent) during the twelve-month period ending November 1970. Most of the increase in unemployment occurred in the electronics industry as a direct result of cutbacks in federal spending for research and development activities. During 1970, data compiled by the Massachusetts Division of Employment Security indicated sharp increases in the number of persons filing for unemployment benefits whose occupations were characterized as professional, technical, managerial, clerical, or sales. Moreover, it appears likely that further increases in unemployment are in prospect for 1971. As stated above, the level of unemployment in the HMA averaged 60,300 between December 1969 and November 1970, but the average for the last six months of that period (June through November) was 69,150, an unemployment ratio of 4.7 percent.

During 1971 and 1972, increases in nonagricultural wage and salary employment in the HMA are expected to be limited to average gains of between 12,500 and 15,000 a year, the lowest annual increases in employment growth in the area in almost a decade. By comparison, nonfarm employment growth in the Boston area averaged 34,300 annually between 1964 and 1969. Economic

studies conducted recently all indicate that manufacturing employment in the Boston area will continue to decline during the next few years. One economic consulting firm estimated that job losses in defense-related industries in the state of Massachusetts would range between 45,000 and 60,000 during the three-year 1970-1972 period, with a greater proportion of the decline occurring during 1970 than in the latter two years. The report suggested that most of the decline would occur in the HMA because Boston area firms have received over one-half of all prime defense contracts awarded in the state in recent years. Two other economic studies projected short-run declines in defense-related employment in Massachusetts of 34,000 and 60,000 jobs, respectively. After considering the projected impact of further reductions in defense spending in Massachusetts, the slowdown in the rate of economic growth nationally and the likelihood of further declines in employment in nondurable goods industries in the HMA, it is judged that manufacturing employment in the HMA will, on the average, decline in the range of between 7,500 and 10,000 annually during 1971 and 1972, with about two-thirds of the decrease occurring in durable goods and one-third in nondurable goods.

The declining level of manufacturing employment in the HMA during 1971 and 1972 eventually will have an impact on the nonmanufacturing sector of the Boston economy. To the extent that unemployed manufacturing workers do not find alternative employment and are forced to curtail their spending (or leave the area entirely) a slowdown in the rate of employment growth in nonmanufacturing can be anticipated. In the Boston area, employment in services will be affected adversely during 1971 and 1972 because some defense-oriented research and development firms are classified as service establishments. Depending upon the extent to which nonmanufacturing will be affected by the changes that are projected in manufacturing, it is estimated that increases in nonmanufacturing employment during 1971 and 1972 will range between an average of 20,000 to 25,000 a year. If employment in nonmanufacturing were to increase by as much as 25,000 yearly during the next two years, this would still be well below the average increase during the 1964-1969 period, which was 30,950 a year.

Income. The median income of all families in the Boston HMA, after deduction of federal income tax, was estimated at \$9,750 as of January 1971, and the median after-tax income of renter households of two persons or more was \$8,125. An estimated eight percent of all families and 13 percent of the renter households earn after-tax incomes of less than \$4,000, while approximately 19 percent of all families and nine percent of the renter households earn after-tax incomes of \$15,000 or more per year. Incomes in the HMA are highest in the Western Submarket and lowest in the Central Submarket (see table IV).

Population. Between October 1966 and April 1970, the population of the HMA increased by an average of 15,050 a year to a total of 2,753,700 at the time of the 1970 Census. Between April 1970 and January 1971, the

population of the HMA increased by 10,300 persons (an annual rate of 13,725 a year) to a total of 2,764,000 persons as of January 1, 1971. These increases compare with an average gain of 16,225 a year between April 1960 and October 1966 (see table V). The population of the Central Submarket declined steadily during the 1960's, and by April 1970 had been surpassed by the Northern Submarket as the most populous sub-area of the HMA. The highest rate of population growth in the HMA during the 1960's (2.0 percent a year) was in the Southern Submarket. Other annual rates of population growth in the HMA between April 1960 and January 1971 were 1.5 percent in the Western Submarket and 0.7 percent in the Northern Submarket. The rate of population decline in the Central Submarket during the 1960's was 0.7 percent a year.

The annual rate of population growth in the HMA declined slowly, but steadily, during the 1960's despite the substantial gain in employment that occurred during the latter half of the decade. In recent years, a combination of several factors has resulted in an increase in the proportion of persons who work in the Boston HMA but reside outside the area. New residential construction in the HMA in the last several years has been at a level sufficient to accommodate only a portion of the families migrating to the Boston area because of increased employment opportunities. In addition, much of the increase in employment has occurred in the suburbs, enabling persons to reside outside the HMA and still be within a reasonable commuting distance of their job. A third factor that effected a declining rate of population growth in the HMA during the 1960's was the declining level of net natural increase (excess of resident births over resident deaths). Vital statistics compiled by the Massachusetts Department of Public Health indicate that the net natural increase in the HMA declined by nearly one-half during the last decade, from about 30,250 in 1961 to 15,650 in 1968. During 1971 and 1972, the annual level of net natural increase is not expected to differ significantly from trends in the recent past. However, a moderate increase in net out-migration can be anticipated in the next two years because of declining rates of employment growth. Based on these factors, it is judged that population increases in the HMA will average 12,500 a year during 1971 and 1972. See table V for population trends in major HMA submarkets since 1960.

Households. Between October 1966 and January 1971 the number of households in the Boston HMA increased by a total of 41,000, an average annual gain of 9,650 (1.1 percent) annually. This nearly equalled the annual rate of household growth between 1960 and 1966 (1.2 percent) when the number of households increased by an average of 9,525 a year. Despite a steady loss in population during the 1960's the number of households in the Central Submarket increased slightly, although the rate of household growth (0.5 percent annually) was much lower than in the other three submarkets. The highest annual rate of household growth in the HMA between April 1960 and January 1971 (2.5 percent) was in the Southern Submarket, followed closely by a rate of increase of 2.4 percent a year in the Western Submarket.

In the Boston HMA, long-term trends in population and households are not affected appreciably by changes in the rate of employment growth because many persons working in the HMA reside outside the metropolitan area. Thus, the projected lower rate of economic growth in the HMA during 1971 and 1972 is expected to result in only a slight decline in the rate of household growth. By January 1973, it is estimated that the number of households in the HMA will reach 893,500, an average gain of 9,250 (1.0 percent) annually during 1971 and 1972. See table VI for changes in the number of households in the HMA and major submarkets during the April 1960-January 1973 period.

Housing Inventory. There were an estimated 923,100 housing units in the Boston HMA as of January 1, 1971, a net increase of 39,900 (9,400 annually) since October 1, 1966, or about 10 percent below the April 1960-October 1966 annual gain of 10,350. Generally lower levels of new residential construction and increases in demolition activity have contributed to the declining rate of net additions to the housing supply in recent years. As shown in table VII, 37 percent of the housing supply in the HMA in January 1971 was in the Central Submarket; however, demolitions and other removals from the inventory limited the net increase in the housing supply in this area to only 21,200 units between April 1960 and January 1971. In the other sub-areas, net additions to the housing inventory between 1960 and 1971 were rather evenly distributed among the Southern Submarket (28 percent of the HMA total), the Northern Submarket (28 percent), and the Western Submarket (25 percent).

As measured by building permits, new residential construction in the Boston HMA was somewhat lower in the last half of the 1960's than during the 1960-1964 period. As shown in table VIII, the number of housing units authorized by building permits in the HMA averaged 12,950 units a year between 1965 and 1969, with annual totals ranging from fewer than 10,650 in 1966 (a year characterized by monetary restrictions in the mortgage market) to more than 15,650 in 1968. Over 14,450 housing units were permitted in the first eleven months of 1970, indicating that the yearly total will be one of the highest in the last several years. During the 1960-1964 period, the number of housing units authorized by building permits averaged 14,500 annually. The annual increase more than doubled from 10,350 in 1960 to a 1960 decade high of 20,800 in 1964. The volume of single-family construction in the HMA declined steadily during the 1960's, from 7,775 in 1960 to only 3,600 in 1969, a decrease of more than 50 percent. The declining volume of single-family construction in the 1960's occurred in all four Boston submarkets.

In recent years, units in multifamily structures have accounted for an increasing proportion of the total volume of new residential construction. Between 1965 and 1969, 61 percent of the units authorized were in multifamily structures; the multifamily proportion in the 1960-1964 period was

52 percent. Approximately 40 percent of the multifamily activity in the HMA since 1965 has been in the Central Submarket, typified by the construction of high-rise projects. Multifamily construction, mostly garden apartments, also has been significant in recent years in the other three submarkets. Of the 12,100 units that were estimated to be under construction in the HMA as of January 1971, approximately 10,600 (88 percent of the total) were in multifamily structures. The increasing proportion of multifamily construction during the latter half of the 1960's resulted in a moderate increase in the incidence of renter occupancy, from 47.5 percent of all occupied units in October 1966 to 48.3 percent in January 1971 (see table VII).

Multifamily housing provided under federal and state programs has accounted for an increasing proportion of the multifamily construction volume in the HMA in recent years. Since January 1965 an average of roughly 8,800 units in multifamily structures has been authorized annually in the Boston area. During this period units in projects developed under federal and state subsidy programs have averaged over 2,500 a year. Thus, of the multifamily units authorized in the HMA since 1965, an average of approximately 6,300 yearly has been for units in nonsubsidized housing (including a few high-rent FHA Section 220 projects), and an average of 2,500 units has been authorized annually for low- and moderate-income families eligible under one or more of the federal or state subsidized housing programs.

Vacancy. The over-all level of vacancy in the Boston HMA declined during the 1960's, with the decrease accelerating in the latter half of the decade because of lower levels of new construction and increased economic growth. As of January 1971 there were an estimated 10,100 housing units in the HMA available for sale or rent, an available vacancy rate of 1.1 percent. Comparable vacancy rates were 2.5 percent at the time of the 1960 Census and 2.0 percent in October 1966. The available inventory in early 1971 included 2,650 units for sale and 7,450 units for rent, equivalent to vacancy rates of 0.6 percent and 1.7 percent, respectively. Vacancy rates in January 1971 were higher in the Southern Submarket than in any of the other three, but this area had the highest annual rate of population growth in the HMA during the 1960's. Vacancy trends in submarket areas of the Boston HMA between April 1960 and January 1971 are shown in table IX. The latest vacancy estimate was based on a series of postal vacancy surveys, on vacancy data compiled by the Boston HUD Area Office, and on vacancy information compiled by several apartment owners and managers in the area.

Appendix A

A Distribution, by Major Submarket, of the Cities and Towns
in the Boston, Massachusetts, Standard Metropolitan Statistical Area

Central Submarket

<u>Cities</u>	<u>Town</u>
Boston	Brookline
Cambridge	
Newton	

Western Submarket

<u>City</u>	<u>Towns</u>
Waltham	Arlington
	Ashland
	Bedford
	Belmont
	Concord
	Dover
	Framingham
	Lexington
	Lincoln
	Natick
	Needham
	Sherburn
	Sudbury
	Watertown
	Wayland
	Wellesley
	Weston

Northern Submarket

<u>Cities</u>	<u>Towns</u>
Beverly	Burlington
Chelsea	Danvers
Everett	Hamilton
Lynn	Lynnfield
Malden	Manchester
Medford	Marblehead
Melrose	Middleton
Peabody	Nahant
Revere	North Reading
Salem	Reading
Somerville	Saugus
Woburn	Stoneham
	Swampscott
	Topsfield
	Wakefield
	Wenham
	Wilmington
	Winchester
	Winthrop

Southern Submarket

<u>City</u>	<u>Towns</u>
Quincy	Braintree
	Canton
	Cohasset
	Dedham
	Duxbury
	Hanover
	Hingham
	Holbrook
	Hull
	Marshfield
	Medfield
	Millis
	Milton
	Norfolk
	Norwell
	Norwood
	Pembroke
	Randolph
	Rockland
	Scituate
	Sharon
	Walpole
	Westwood
	Weymouth

Table I

Estimated Annual Demand for New Single-Family Houses
Boston, Massachusetts, Housing Market Area
January 1, 1971 to January 1, 1973

<u>Sales price</u>	<u>Number of units</u>	<u>Percentage distribution</u>
Under \$25,000	240	7
\$25,000 - 27,499	700	20
27,500 - 29,999	560	16
30,000 - 32,499	460	13
32,500 - 34,999	350	10
35,000 - 39,999	770	22
40,000 and over	420	12
Total	<u>3,500</u>	<u>100</u>

Estimated Annual Demand for New Nonsubsidized Multifamily Housing
Boston, Massachusetts, Housing Market Area
January 1, 1971 to January 1, 1973

<u>Monthly gross rent^{a/}</u>	<u>Number of units by bedroom size</u>			
	<u>Efficiency</u>	<u>One bedroom</u>	<u>Two bedrooms</u>	<u>Three bedrooms</u>
Under \$180	280	-	-	-
\$180 - 199	45	1,445	-	-
200 - 219	25	610	-	-
220 - 239	5	360	1,175	-
240 - 259	-	110	710	-
260 - 279	-	45	420	80
280 - 299	-	35	235	60
300 - 324	-	-	155	40
325 - 349	-	-	65	30
350 and over	-	-	50	20
Total	<u>355</u>	<u>2,605</u>	<u>2,810</u>	<u>230</u>

^{a/} Gross rent is contract rent plus utilities if they are not included in the contract rent.

Table II

Estimated Annual Occupancy Potential for Subsidized Rental Housing
Boston, Massachusetts, Housing Market Area
January 1, 1971 to January 1, 1973

<u>Size of unit</u>	<u>Number of units</u>			<u>Total potential for both programs</u>
	<u>Section 236 exclusively</u>	<u>Public housing exclusively</u>	<u>Families eligible for both programs</u>	
A. <u>Families</u>				
One bedroom	555	490	-	1,045
Two bedrooms	2,075	1,245	-	3,320
Three bedrooms	1,365	710	-	2,075
Four or more bedrooms	505	330	-	835
Total	<u>4,500^{a/}</u>	<u>2,775^{b/}</u>	-	<u>7,275</u>
B. <u>Elderly</u>				
Efficiency	370	2,420	695	3,485
One bedroom	570	580	290	1,440
Total	<u>940</u>	<u>3,000^{c/}</u>	<u>985^{c/}</u>	<u>4,925</u>

^{a/} Estimates are based on exception income limits.

^{b/} About 45 percent of these families are eligible under the rent-supplement program.

^{c/} All of these elderly couples and individuals also are eligible under the rent-supplement program.

Table III

Work Force, Unemployment, and Employment by Industry
Boston, Massachusetts, Housing Market Area, 1966-1970
 (Annual averages in thousands)

<u>Work force components</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>Twelve-month average ending:</u>	
					<u>November 30, 1969</u>	<u>November 30, 1970</u>
Total civilian work force	1,345.7	1,380.0	1,402.9	1,427.4	1,425.3	1,455.0
Unemployment	47.9	45.3	45.2	46.0	45.7	60.3
Percent of work force	3.6%	3.3%	3.2%	3.2%	3.2%	4.1%
Workers on strike	2.4	0.7	2.1	3.4	2.2	4.2
Total employment	1,295.4	1,334.0	1,355.6	1,378.0	1,377.4	1,390.5
Agricultural employment	5.9	5.9	5.9	5.9	5.9	5.9
Nonagricultural employment	1,289.5	1,328.1	1,349.7	1,372.1	1,371.5	1,384.6
Wage & salary employment	1,190.4	1,231.4	1,255.1	1,277.4	1,276.9	1,290.2
Manufacturing	<u>299.2</u>	<u>304.4</u>	<u>296.5</u>	<u>292.2</u>	<u>293.4</u>	<u>278.8</u>
Durable goods	<u>163.3</u>	<u>171.2</u>	<u>167.5</u>	<u>167.2</u>	<u>168.2</u>	<u>159.3</u>
Primary metals	4.2	4.4	4.3	3.9	3.9	3.1
Fabricated metals	18.0	18.0	17.7	18.4	18.3	18.1
Nonelectrical machinery	35.8	37.3	35.8	35.4	35.7	35.0
Electrical machinery	54.2	56.2	55.0	53.4	53.7	50.0
Transportation equipment	21.5	23.7	22.5	21.5	22.0	20.2
Instruments	17.8	19.2	19.1	20.9	20.9	20.5
Other durable goods	11.8	12.4	13.1	13.7	13.7	12.4
Nondurable goods	<u>135.9</u>	<u>133.2</u>	<u>129.0</u>	<u>125.0</u>	<u>125.2</u>	<u>119.5</u>
Food products	24.9	24.5	24.0	24.0	24.0	23.9
Textiles	6.2	6.0	6.0	5.6	5.6	5.1
Apparel	19.8	19.3	17.9	17.9	17.8	17.2
Paper products	10.8	10.7	10.8	10.6	10.7	10.3
Printing & publishing	25.2	25.6	24.5	24.2	24.2	24.3
Chemicals	9.2	8.8	8.6	8.2	8.2	8.1
Rubber products	15.1	15.2	14.1	12.6	12.7	10.7
Leather products	17.5	16.0	16.1	14.9	15.0	12.9
Other nondurable goods	7.2	7.1	7.0	7.0	7.0	7.0
Nonmanufacturing	<u>891.2</u>	<u>927.0</u>	<u>958.6</u>	<u>985.2</u>	<u>983.5</u>	<u>1,011.4</u>
Contract construction	50.3	50.0	52.1	50.3	50.7	50.9
Trans. & pub. utilities	67.3	69.8	68.4	73.1	73.0	76.5
Trade	266.3	274.6	283.6	287.9	287.5	292.6
Fin., ins., real estate	81.1	84.6	87.6	90.8	90.5	94.0
Services	265.2	281.9	297.2	309.6	308.6	321.0
Government	161.0	166.1	169.7	173.5	173.2	176.4
All other nonagricultural empl. ^{a/}	99.1	96.7	94.6	94.7	94.6	94.4

^{a/} Includes unpaid family workers, the self-employed, and domestics.

Source: Massachusetts Division of Employment Security.

Table IV

Percentage Distribution of All Families and Renter Households^{a/}
by Estimated Annual After-Tax Income
Boston, Massachusetts, Housing Market Area
As of January 1, 1971

<u>Annual income</u> <u>after tax</u>	<u>City of Boston</u>		<u>Remainder of HMA</u>		<u>HMA total</u>	
	<u>All</u> <u>families</u>	<u>Renter</u> <u>households</u>	<u>All</u> <u>families</u>	<u>Renter</u> <u>households</u>	<u>All</u> <u>families</u>	<u>Renter</u> <u>households</u>
Under \$4,000	12	17	5	10	8	13
\$4,000 - 5,999	17	18	9	14	9	15
6,000 - 7,999	20	22	14	21	17	21
8,000 - 9,999	17	16	19	19	18	18
10,000 - 12,499	14	13	18	16	17	15
12,500 - 14,999	9	8	13	10	12	9
15,000 - 19,999	8	5	13	7	11	6
20,000 and over	<u>3</u>	<u>1</u>	<u>9</u>	<u>3</u>	<u>8</u>	<u>3</u>
Total	100	100	100	100	100	100
Median	\$8,075	\$7,375	\$10,200	\$8,450	\$9,750	\$8,125

a/ Excludes one-person renter households.

Source: Estimated by Housing Market Analyst.

Table V

Population Trends
Boston, Massachusetts, Housing Market Area
April 1, 1960 - January 1, 1973

<u>Date</u>	<u>Central submarket</u>	<u>Northern submarket</u>	<u>Western submarket</u>	<u>Southern submarket</u>	<u>HMA total</u>
April 1, 1960	951,341	838,313	393,767	412,060	2,595,481
October 1, 1966	914,500	880,300	437,200	469,000	2,701,000
April 1, 1970	891,384	900,773	459,273	502,270	2,753,700
January 1, 1971	886,500	905,000	463,500	509,000	2,764,000
January 1, 1973	874,000	915,500	473,500	526,000	2,789,000
<u>Average annual change:</u>					
1960-1966	-5,675	6,450	6,675	8,775	16,225
1966-1970	-6,600	5,850	6,300	9,500	15,050
1970-1971	-6,500	5,625	5,625	8,975	13,725
1971-1973	-6,250	5,250	5,000	8,500	12,500

Sources: 1960 and 1970 from U.S. Censuses of Population.
1966, 1971, and 1973 estimated by Housing Market Analysts.

Table VI

Household Trends
Boston, Massachusetts, Housing Market Area
April 1, 1960 - January 1, 1973

<u>Date</u>	<u>Central submarket</u>	<u>Northern submarket</u>	<u>Western submarket</u>	<u>Southern submarket</u>	<u>HMA total</u>
April 1, 1960	303,572	246,655	107,921	113,992	772,140
October 1, 1966	313,000	266,000	124,000	131,000	834,000
January 1, 1971	321,000	276,900	134,500	142,600	875,000
January 1, 1973	324,800	281,400	139,000	148,300	893,500
Average annual change:					
1960-1966	1,450	2,975	2,475	2,625	9,525
1966-1971	1,875	2,575	2,475	2,725	9,650
1971-1973	1,900	2,250	2,250	2,850	9,250

Sources: 1960 from U. S. Census of Housing.
1966, 1971, and 1973 estimated by Housing Market Analysts.

Table VII

Trends in Household Tenure
Boston, Massachusetts, Housing Market Area
April 1, 1960 - January 1, 1971

<u>Area and date</u>	<u>Total housing inventory</u>	<u>Occupied housing units</u>				<u>Total vacant units</u>	
		<u>Total</u>	<u>Owner occupied</u>		<u>Renter occupied</u>		
			<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	
HMA total							
April 1, 1960	815,875	772,140	404,080	52.3	368,060	47.7	43,735
October 1, 1966	883,200	834,000	438,100	52.5	395,900	47.5	49,200
January 1, 1971	923,100	875,000	452,200	51.7	422,800	48.3	48,100
Central submarket							
April 1, 1960	319,895	303,572	94,313	31.1	209,259	68.9	16,323
October 1, 1966	331,700	313,000	93,000	29.7	220,000	70.3	18,700
January 1, 1971	341,100	321,000	91,500	28.5	229,500	71.5	20,100
Northern submarket							
April 1, 1960	258,185	246,655	143,884	58.3	102,771	41.7	11,530
October 1, 1966	279,500	266,000	156,700	58.9	109,300	41.1	13,500
January 1, 1971	288,200	276,900	162,000	58.5	114,900	41.5	11,300
Western submarket							
April 1, 1960	110,965	107,921	77,293	71.6	30,628	28.4	3,044
October 1, 1966	127,500	124,000	87,000	70.2	37,000	29.8	3,500
January 1, 1971	137,300	134,500	91,600	68.1	42,900	31.9	2,800
Southern submarket							
April 1, 1960	126,830	113,992	88,590	77.7	25,402	22.3	12,838
October 1, 1966	144,500	131,000	101,400	77.4	29,600	22.6	13,500
January 1, 1971	156,500	142,600	107,100	75.1	35,500	24.9	13,900

Sources: 1960 from U.S. Census of Housing.

1966 and 1971 estimated by Housing Market Analysts.

Table VIII

New Housing Units Authorized by Building Permits, by Type of Structure
Boston, Massachusetts, Housing Market Area
Annual totals, 1965-1970

<u>Area</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970^{a/}</u>
HMA total	<u>14,014</u>	<u>10,639</u>	<u>12,171</u>	<u>15,666</u>	<u>12,201</u>	<u>14,474</u>
Single-family	6,140	5,074	4,943	4,980	3,607	2,733
Multifamily	7,874	5,565	7,228	10,686	8,594	11,741
Central submarket	<u>4,186</u>	<u>2,863</u>	<u>2,476</u>	<u>4,812</u>	<u>2,440</u>	<u>6,185</u>
Single-family	217	203	280	142	86	67
Multifamily	3,969	2,660	2,196	4,670	2,354	6,118
Northern submarket	<u>3,372</u>	<u>2,808</u>	<u>3,711</u>	<u>3,345</u>	<u>3,662</u>	<u>2,359</u>
Single-family	2,162	1,730	1,499	1,539	1,000	828
Multifamily	1,210	1,078	2,212	1,806	2,662	1,531
Western submarket	<u>3,160</u>	<u>2,181</u>	<u>2,845</u>	<u>3,568</u>	<u>2,313</u>	<u>2,402</u>
Single-family	1,572	1,366	1,348	1,278	917	689
Multifamily	1,588	815	1,497	2,290	1,396	1,713
Southern submarket	<u>3,296</u>	<u>2,787</u>	<u>3,139</u>	<u>3,941</u>	<u>3,786</u>	<u>3,528</u>
Single-family	2,189	1,775	1,816	2,021	1,604	1,149
Multifamily	1,107	1,012	1,323	1,920	2,182	2,379

^{a/} First eleven months.

Note: The annual totals shown above include federal public low-rent housing units as follows: 452 in 1965; 595 in 1966; 186 in 1967; 1,153 in 1968; 572 in 1969; and 421 in 1970.

Sources: U.S. Bureau of the Census, Construction Reports C-40/42;
 Massachusetts Department of Labor and Industries.

Table IX

Trends in Vacancy
Boston, Massachusetts, Housing Market Area
April 1, 1960 - January 1, 1971

<u>Area and date</u>	<u>Total vacant units</u>	<u>Available vacant housing units</u>				<u>Other vacant units^{a/}</u>	
		<u>Total</u>	<u>For sale</u>		<u>For rent</u>		
			<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	
HMA total							
April 1, 1960	43,735	19,438	3,950	1.0	15,488	4.0	24,297
October 1, 1966	49,200	16,800	4,000	0.9	12,800	3.1	32,400
January 1, 1971	48,100	10,100	2,650	0.6	7,450	1.7	38,000
Central submarket							
April 1, 1960	16,323	10,639	722	0.8	9,917	4.5	5,684
October 1, 1966	18,700	8,000	800	0.9	7,200	3.2	10,700
January 1, 1971	20,100	4,850	750	0.8	4,100	1.8	15,250
Northern submarket							
April 1, 1960	11,530	5,318	1,433	1.0	3,885	3.6	6,212
October 1, 1966	13,500	5,400	1,400	0.9	4,000	3.5	8,100
January 1, 1971	11,300	2,825	775	0.5	2,050	1.8	8,475
Western submarket							
April 1, 1960	3,044	1,608	821	1.1	787	2.5	1,436
October 1, 1966	3,500	1,500	800	0.9	700	1.9	2,000
January 1, 1971	2,800	725	300	0.3	425	1.0	2,125
Southern submarket							
April 1, 1960	12,838	1,873	974	1.1	899	3.4	10,965
October 1, 1966	13,500	1,900	1,000	1.0	900	3.0	11,600
January 1, 1971	13,900	1,700	825	0.8	875	2.4	12,200

^{a/} Includes dilapidated units, units rented or sold and awaiting occupancy, vacant seasonal units, and units held off the market.

Sources: 1960 from U.S. Census of Housing.
1966 and 1971 estimated by Housing Market Analysts.