Analysis of the SPRINGFIELD, OHIO HOUSING MARKET

as of November 1, 1966

A Report by the
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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ANALYSIS OF THE

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Field Market Analysis Service
Federal Housing Administration
Department of Housing and Urban Development

Foreword

As a public service to assist local housing activities through clearer understanding of local housing market conditions, FHA initiated publication of its comprehensive housing market analyses early in 1965. While each report is designed specifically for FHA use in administering its mortgage insurance operations, it is expected that the factual information and the findings and conclusions of these reports will be generally useful also to builders, mortgagees, and others concerned with local housing problems and to others having an interest in local economic conditions and trends.

Since market analysis is not an exact science, the judgmental factor is important in the development of findings and conclusions. There will be differences of opinion, of course, in the interpretation of available factual information in determining the absorptive capacity of the market and the requirements for maintenance of a reasonable balance in demand-supply relationships.

The factual framework for each analysis is developed as thoroughly as possible on the basis of information available from both local and national sources. Unless specifically identified by source reference, all estimates and judgments in the analysis are those of the authoring analyst and the FHA Market Analysis and Research Section.

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ANALYSIS OF THE SPRINGFIELD, OHIO, HOUSING MARKET AS OF NOVEMBER 1, 1966

Summary and Conclusions

1. The August 1966 civilian work force in the Springfield, Ohio, Housing Market Area (HMA) is estimated at 51,400, comprised of 50,100 employed persons and 1,300 unemployed persons. The total employment level of 50,100 reflects a gain of 3,700 since August 1965.

   Over the 1960-1965 period, the number of workers covered under the Ohio Unemployment Compensation Law grew from a 1960 average of 27,925 to a 1965 average of 31,675, an increase of 3,750. The trend over the period was not consistent, however; employment changes fluctuated between a decline of 200 in 1961 and an increase of 1,650 in 1965. Upward movements in total covered employment were linked closely to increases in manufacturing employment, which accounted for about 72 percent of the 3,750 gain in covered employment recorded between 1960 and 1965.

   Unemployment in the Springfield HMA was 1,300 in August 1966, equal to 2.5 percent of the work force, a decline of approximately 400 since August 1963 when unemployment was at a level of 1,700 (3.6 percent of the work force).

   Employment growth in the area can be expected to continue at an annual rate of 1,200 jobs over the two year forecast period as a result of gains in manufacturing, trade, services, and construction.

2. The current median income of all families in the HMA is approximately $7,275, after the deduction of federal income tax. The median income of renter households of two or more persons is $6,250. By 1968, median after-tax incomes are expected to rise to $7,725 and $6,600, respectively, for all families and for renter households of two-or-more persons.

3. The current population of the HMA is about 151,850, an average annual increase of 3,100 (2.3 percent) since April 1, 1960. By November 1, 1968 the population of the HMA is expected to total 158,350, an annual gain of 3,250 over the next two years.

4. As of November 1, 1966, there are 44,950 households in the HMA, an increase of about 6,025 since April 1, 1960. By November 1, 1968, there will be about 46,750 households in the Springfield, Ohio, HMA. Over the two-year forecast period, the 900 annual household growth will approximate the 915 annual growth rate of the 1960-1966 period.

5. Currently, there are 46,550 housing units in the Springfield, Ohio, HMA, a net gain since April 1, 1960 of about 5,650 housing units (14 percent), or an average annual increase of about 860 units. The net increase results from the construction of about 6,350 new units, the addition of approximately 300 trailers, and the loss of 1,000 units as a result of demolitions, fire, and other causes. There are estimated to be about 510 housing units under construction in the HMA, 250 single-family homes and approximately 260 multifamily units.

6. Current vacancy ratios are slightly below the 1960 levels. About 900 units are available in the HMA for occupancy, including 250 units for sale and 650 units available for rent. The current sales and rental vacancies represent homeowner and renter vacancy ratios of 0.8 percent and 4.1 percent, respectively. On April 1, 1960 the homeowner vacancy rate stood at 1.2 percent and the renter vacancy ratio was 6.1 percent.

7. Annual demand for additional housing over the two-year forecast period is projected at 1,050 units, including 850 single-family units and 200 multifamily units. An additional 100 units probably can be absorbed if provided at the lower rents achievable with aid in financing or land acquisition, excluding public low-rent housing and rent-supplement accommodations. Annual demand for single-family units is expected to approximate the distribution shown on page 27. Annual demand for multifamily units is distributed by gross monthly rent and unit size on page 28.

   Demand for new multifamily housing designed for occupancy by the elderly constitutes only 25 units of the 200 units of the projected annual multifamily demand at market-interest-rate financing in the HMA. Demand for nursing care facilities is estimated at 150 nursing beds, but a large portion of this demand is currently being met by "unsuitable" facilities. Additional facilities should be provided in small increments to test the absorptive capacity of new accommodations in competition with these facilities.

ANALYSIS OF THE SPRINGFIELD, OHIO, HOUSING MARKET AS OF NOVEMBER 1, 1966

Housing Market Area

The Springfield, Ohio, Housing Market Area (HMA) is defined as Clark County and is coextensive with the Springfield, Ohio, Standard Metropolitan Statistical Area (SMSA) as defined by the U. S. Bureau of the Budget. As of April 1, 1960, the census reported the population of Clark County to be approximately 131,450, with about 82,725 persons residing within the corporate limits of the county seat, the city of Springfield.1/ The HMA is nearly rectangular in shape and measures approximately 17 miles north to south and 27 miles from east to west, about 412 square miles.

The Springfield HMA is situated in the southwestern quadrant of the state of Ohio, contiguous to the Dayton SMSA. The HMA is bordered on the east by Madison County, on the north by Champaign County, and on the west and south by three of the four counties in the Dayton Standard Metropolitan Statistical Area--Miami, Montgomery, and Greene Counties (see map on page 3). The city of Springfield is located approximately 45 miles west of the city of Columbus, Ohio and 25 miles northeast of the city of Dayton, Ohio.

The relatively flat character of the topography of the HMA is broken by several gently rolling hills. The juncture of the Mad River and Buck Creek west of the city of Springfield forms the convergence of a widespread system of creeks and streams.

The HMA is linked to nearby metropolitan areas by a network of highways, among which are U. S. highways 40 (Interstate 70) and 68 and state routes 4, 41, 440, and 72. A five-mile portion of Interstate 70 south of Springfield currently is under construction. Future plans call for the rebuilding of U. S. 68 as a limited access route and the construction of a route north of the city between U. S. 68 and state route 4. The combination of existing and planned routes eventually will result in a circumferential highway system around the city of Springfield. The HMA is served by four rail lines, among which are the New York Central and the Pennsylvania Railroads. Commercial air service is provided at Cox Municipal Airport, located 25 miles west of Springfield in Vandalia. Private and unscheduled service is available at the Springfield Municipal Airport. Two major bus lines and forty truck lines furnish passenger and freight service between the HMA and other urban centers.

1/ Inasmuch as the rural farm population of the Springfield HMA constituted only four percent of the total population in 1960, all demographic and housing data used in this analysis refer to the total of rural farm and nonfarm data.

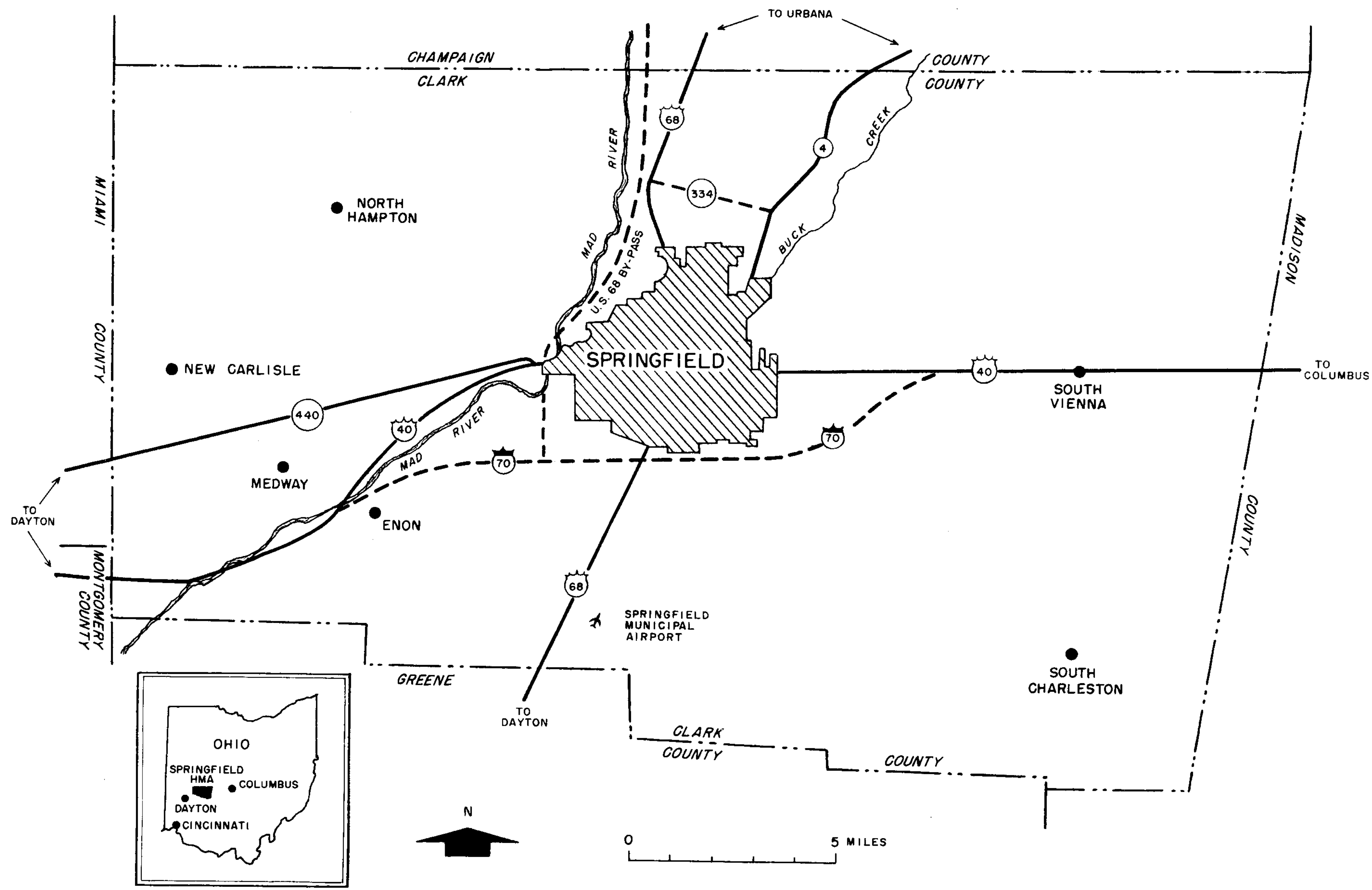
As of April 1960, there was a net out-commutation of approximately 5,050 persons from the HMA, 7,050 workers commuting to contiguous counties and 2,000 persons commuting from surrounding counties into the Springfield HMA. A large number of Clark County residents are employed in the Dayton area, accounting for the rather high level of daily commutation into Montgomery County. Residents of the HMA who were employed at Wright-Patterson Air Force Base in Greene County represented virtually all of the out-commutation into Greene County. At the present time, approximately 3,750 Springfield area residents are employed at the Air Force base. The table below presents in- and out-commutation between Clark County and neighboring counties in 1960.

Worker Commutation
Springfield, Ohio, HMA
April 1, 1960

Contiguous counties	Number of persons commuting	
	From HMA	To HMA
Champaign	179	1,066
Greene	3,087	397
Madison	173	245
Miami	260	124
Montgomery	3,338	167
Total	7,037	1,999

Source: U. S. Bureau of the Budget.

SPRINGFIELD, OHIO, HOUSING MARKET AREA



Economy of the Area

Character and History

The city of Springfield, Ohio, was founded in the late 1700's. The advantageous location at the confluence of the Mad River and Buck Creek was the principal determinant in the early settlement of the area. Initially agriculturally-oriented, the economy of the Springfield area did not shift to a manufacturing base until after the coming of the railroad in the mid-1800's. Durable goods manufacturing, especially the machinery and transportation equipment industries, has become of major importance to the area. Springfield has experienced a slow but steady growth in recent years; the only significant setback occurred in 1956 when the Crowell Collier Publishing Company closed its plant and layed off approximately 2,700 workers. The economy has since recovered, however, and is expanding at the present time.

Wittenberg University, a school affiliated with the Lutheran Church in America, is located in the city of Springfield. Founded in 1845, the university's facilities now include thirty buildings on a fifty-eight acre campus in the northern residential section of the city. There are approximately 2,250 undergraduate students at the university and a faculty of over 150. The university is currently in the process of expanding its facilities. Construction is proceeding on a new high-rise dormitory, a music building, and a science building.

Employment

Current Estimate and Past Trend. The August 1966 civilian work force in the Springfield, Ohio, HMA was estimated by the Ohio Bureau of Unemployment Compensation at 51,400, comprised of 50,100 employed persons and 1,300 unemployed persons. Between August 1965 and August 1966, total employment increased by 3,700 persons (see following table). Approximately 1,700 of the 3,700 increment can be attributed to recent expansions on the part of the three largest employers in the HMA--International Harvester Corporation, Steel Products Engineering Corporation, and Robbins and Myers Incorporated.

Civilian Work Force Components, Springfield, Ohio, HMA
August 1965 and August 1966

Component	August 1965	August 1966
Civilian work force	47,800	51,400
Total employed	46,400	50,100
Unemployment	1,400	1,300
Percent of work force	2.9%	2.5%

Source: Ohio Bureau of Unemployment Compensation.

Employment data for the Springfield HMA prior to 1963 and data by industry groups for all years are available only for insured workers[1/], which represented about 68 percent of total employment in 1965. Over the five-year period from 1960 to 1965, covered employment grew from a 1960 average of 27,925 to a 1965 average of 31,675, an increase of 3,750 (see table I). The trend over the period was not consistent, however; employment changes fluctuated between a decline of 200 in 1961 and an increase of 1,650 in 1965.[2/] Upward movements in total covered employment were linked closely to increases in manufacturing employment, which accounted for about 72 percent of the 3,750 gain recorded by covered employment between 1960 and 1965.

The small decline of 200 jobs in covered employment which occurred between 1960 and 1961 was coincident with the national recession of that period. The decline resulted mainly from a loss of about 125 jobs in trade. Employment in all durable goods industries showed no change between 1960 and 1961, as a decline of 600 in transportation equipment was offset by gains in other sectors. In 1964, when the covered employment increase failed to reach the 1,025 increase attained in the previous year, the primary metals segment of durable goods industries declined by 300, nullifying much of the gain recorded by other sectors.

The 1,050 increase in covered employment between 1961 and 1962 was led by employment gains in services (200), retail trade (160), transportation equipment (140), and fabricated metal products (100). Between 1962 and 1963, covered employment continued to grow; employment in the transportation equipment industry rose by over 700 workers and a total of 375 workers were added to nonelectrical machinery payrolls. In 1965, total covered employment reached a peak of 31,675 as the machinery industries, both electrical and nonelectrical, rose by 175 and 625 jobs, respectively, and 200 workers were added to contract construction employment.

Over the entire 1960-1965 period, those industries which contributed substantially to the 3,750 increment in total covered employment were nonelectrical machinery (2,000), retail trade (450), services (400), contract construction (315), and electrical machinery (300). The only industry to show any significant degree of decline over the five-year period was primary metals in which jobs decreased by 330.

1/ Workers covered under the Ohio Unemployment Compensation Law.

2/ Corresponding changes may be assumed to have occurred in total employment. Utilizing a 65 percent ratio of covered employment to total employment, total employment was about 43,000 in August 1960 comparing with 50,100 in August 1966. Thus, the average gain since 1960 was about 1,200 employees annually.

Manufacturing employment, which is well represented by covered employment data, grew from a 1960 average of 14,775 jobs to a 1965 average of 17,475, an increase of approximately 2,700. During the five-year period, employment in manufacturing registered small declines in 1961 and 1964 and recorded substantial gains in 1962, 1963, and 1965 (see the following table). During each of the years between 1960 and 1965, the direction and magnitude of the changes which occurred in manufacturing employment were governed by the growth or decline of employment in durable goods industries. Recent increments in manufacturing employment were the result of expansions by existing manufacturers rather than the location of new industries within the HMA.

Trend of Manufacturing, Nonmanufacturing
And Total Covered Employment
Springfield, Ohio, HMA, 1960-1965

Year	Manufacturing Number	Manufacturing Change	Nonmanufacturing Number	Nonmanufacturing Change	Total Number	Total Change
1960	14,772	-	13,148	-	27,920	-
1961	14,761	- 11	12,963	-185	27,724	- 196
1962	15,365	604	13,410	447	28,775	1,051
1963	16,319	954	13,476	66	29,795	1,020
1964	16,289	- 30	13,724	248	30,013	218
1965	17,469	1,180	14,199	475	31,668	1,655

Source: Ohio Bureau of Unemployment Compensation.

Nonmanufacturing industries in the Springfield HMA employed 14,200 workers in 1965, an increase of 1,050 since 1960. Covered employment in nonmanufacturing declined between 1960 and 1961 by 185 jobs; since 1961, however, employment increased in each year, reaching a peak gain of 475 between 1964 and 1965. The 1960-1961 decline in nonmanufacturing employment reflects decreases in both the trade and construction industries, while subsequent increase in nonmanufacturing employment reflect, for the most part, increases in these same industries.

Major Industry Groups. An estimated 17,475 covered workers (55 percent of all covered workers) were employed in manufacturing in 1965, of whom 15,650 (90 percent) worked in durable goods manufacturing and nearly 1,825 were employed in the manufacture of nondurable goods. Nonelectrical machinery, the largest component of durable goods manufacturing, contributed the greatest share to durable goods gains in the 1960-1965 period, increasing by 2,000 over the five-year period. Expansions at a number of firms in the area accounted for a major portion of the recent employment gain noted in the industry. Bauer Brothers, Shawnee Machine Products, Sterling Manufacturing, and the Udylite Corporation all added to their existing facilities through new plant construction, purchase, or lease. The transportation equipment industry, with 5,175 employees in 1965, added a total of approximately 235 jobs during the 1960-1965 period. Employment in the industry fluctuated considerably, from an annual average decline of over 600 between 1960 and 1961 to an increase of over 700 between 1962 and 1963. This sector of manufacturing is dominated by the International Harvester Corporation which provides over half of all covered employment in the transportation equipment industry. Covered employment in electrical machinery increased by about 300 in the period between 1960 and 1965. Over the period, losses in 1961, 1963, and 1964 were more than equalled by the increases which occurred in 1962 and 1965. Primary metals was the only durable goods industry to decline appreciably between 1960 and 1965; employment in the industry fell by approximately 330 jobs.

As a result of the expansion of retail trade facilities through the construction of shopping centers throughout the Springfield area, retail trade employment increased by approximately 450 over the 1960-1965 period. Services, a relatively consistent contributor to local economic growth, grew by 400 during the five-year period, decreasing only between 1962 and 1963. Following declines in 1961 and 1962, employment in contract construction enjoyed gains of 90, 175, and 190, as activity increased in both residential and commercial construction in the HMA. The only sector of nonmanufacturing employment to show a decline over the 1960-1965 period was transportation, communications, and utilities employment, which has been decreasing since 1962.

Principal Employers

Manufacturing establishments in the Springfield HMA are typically small and employ fewer than 100 workers each. At present, there are about 30 firms in the HMA which employ 100 or more workers; about 17 of these have 500 or more employees and only three firms have employment exceeding 1,000.

The International Harvester Corporation, producer of motor trucks in the 4,200 to 23,500 pound gross vehicle weight class, is the largest single employer in the HMA. The company recently has completed a new multi-million dollar truck assembly plant which has allowed a better distribution of the company's work force; employment at International Harvester has grown moderately since 1964.

Robbins and Myers, manufacturers of electrical machinery, ranging from industrial ventilating equipment to generators, has had a substantial employment increase in the past year. The preponderance of the employment gain was in factory personnel, as both the pump and industrial fan divisions were expanded to meet growing production demands.

Steel Products Engineering Company, a division of the Kelsey Hayes Company, manufactures aircraft assemblies and auxiliary equipment for the aircraft industry (radar antennas, gears, etc.).

Unemployment

Unemployment in the Springfield HMA was 1,300 in August 1966, equal to 2.5 percent of the work force. The level of 1,300 in August of this year represents a decline of approximately 400 since August of 1963 when unemployment was at a level of 1,700 (3.6 percent of the work force). Some distortion in the unemployment picture of the HMA results from the fact that the month of August represents a period of peak employment and, consequently, low unemployment. However, the level of unemployment in the Springfield HMA recently has demonstrated a tendency to remain relatively stable over the entire year and the annual average rate of unemployment may be expected to be slightly higher than the figure reported for August.

Future Employment. Total employment is expected to increase by about 1,200 jobs annually during the November 1, 1966 to November 1, 1968 forecast period; a level which is consistent with the average annual growth rate of the past six years, but somewhat below the relatively large gains of the past two years. The forecast is premised on the expectation that manufacturing employment gains will continue to be significant, but will fall considerably below the increases in recent years. Much of the recent gain has been the result of the expansion of facilities by some of the larger employers in the area.

The gains resulting from these expansions, for the most part, have been realized and no new large firms are expected to locate in the HMA during the forecast period. Much of the growth in the HMA in the next two years will stem from gains in the nonmanufacturing sector of the economy -- trade, services, and construction.

Income

Manufacturing Wages. Weekly earnings of manufacturing workers covered under the Ohio Unemployment Compensation Law in the Springfield HMA averaged $111 during 1965, as compared with a 1959 average of $91 (see table below). This represents an increase of 22 percent over the six-year period. Despite substantial gains since 1959, average weekly earnings of manufacturing workers in the HMA have been consistently below those paid in the larger industrial areas of Ohio. Wages in the durable goods sector of manufacturing employment have been substantially higher than those paid nondurable goods workers; in 1965, the average weekly wage of workers employed in the manufacture of durable goods was $130, while the average weekly wage in the nondurable goods sector was $108.

Average Weekly Earnings in Manufacturing Industries
Under Ohio Unemployment Compensation Law
Springfield, Ohio, HMA
1959-1965

Year	Average weekly earnings
1959	$ 90.79
1960	92.71
1961	94.87
1962	97.50
1963	102.44
1964	105.25
1965	110.72

Source: Ohio Bureau of Unemployment Compensation.

Family Income. The estimated current median income of all families in the Springfield HMA, after the deduction of federal income tax, is $7,275 yearly, and the current median after-tax income of renter households[1/] is $6,250 (see following table). The current median income of all families represents an increase of 29 percent over the 1959 median after-tax income of $5,650.

1/ Excludes one-person renter households.

Median After-Tax Incomes
Springfield, Ohio, HMA
1959, 1966, and 1968

Year	All families	Renter households
1959	$5,650	$4,850
1966	7,275	6,250
1968	7,725	6,600

Source: Estimated by Housing Market Analyst.

Detailed distributions of all families and of renter households by annual income are presented in table II. About 17 percent of all families and 24 percent of renter households currently have after-tax incomes below $4,000 annually. At the upper-end of the income distributions, 25 percent of all families and 13 percent of renter households have incomes of $10,000 or more annually after tax.

Demographic Factors

Population

Housing Market Area. As of November 1, 1966, the population of the Springfield, Ohio, HMA is about 151,850, an average annual gain of about 3,100 (2.3 percent1/) since April 1, 1960 (see table III). Paralleling the pattern of economic growth, it is likely that the population was rising much more rapidly in the latter years of the period than in the earlier years. Between April 1, 1950 and April 1, 1960, the population of the Springfield HMA grew from about 111,650 to 131,450, an average annual increment of 1,975 (1.6 percent).

City of Springfield. Within the city of Springfield, population has risen to a level of 87,875 since April 1960. This represents an average growth of approximately 775 persons a year, or one percent annually. By far the largest community in Clark County, the city of Springfield contains about fifty-eight percent of the HMA current population of 151,850.

The population of Springfield increased from 78,500 in 1950 to 82,725 in 1960. During the ten-year period, approximately 7,150 persons were brought into the corporate limits of the city through territorial annexations. As the total gain between 1950 and 1960 was only about 4,225, the city as defined in 1950 lost a net total of 2,925 persons. While annexation activity creates growth in the central city of an urbanized area at the expense of the remainder of the area, it may be viewed as an adjustment on the part of the city to the pattern of metropolitan growth. Many of the persons living in annexed areas were former residents of the urban core who had moved to new subdivisions on the fringe of the city. Annexation activity in Springfield has slowed considerably; since 1960, only about 1,850 persons have been added to the population of the city through annexation.

Remainder of the HMA. The population of the remainder of the HMA is 63,975 at the present time. Growing by slightly over 15,250 persons during the April 1, 1960-November 1, 1966 period, the population of areas outside the corporate limits of the city of Springfield currently represents approximately 42 percent of the total population in Clark County. Between April 1, 1950 and April 1, 1960, the population of the area increased at an annual rate of 1,550 persons (3.9 percent), compared with an average of approximately 2,325 persons (4.2 percent) a year since 1960.

1/ All average annual percentage changes in demographic factors are derived through use of a formula designed to calculate the rate of change on a compound basis.

A relatively large portion of the population increase which has occurred in Clark County since 1950 has taken place in the suburban areas around the city of Springfield and in those townships to the west which are adjacent to the Dayton SMSA. Moorefield and Springfield townships have developed as a result of an abundance of land suitable for home construction. Bethel and Mad River townships have grown, not only as a result of a ready availability of land, but also because of their proximity to employment centers in and around the city of Dayton.

In 1950, the area outside the city of Springfield contained 30 percent of the population of the HMA. The proportion climbed to 37 percent of the total by 1960, and currently, the remainder of the HMA accounts for 42 percent of the HMA population. This trend toward a faster rate of population growth in the areas outside the central city than within the city is not a characteristic of the Springfield area alone. The Ohio Department of Development reports that the 1960-1963 growth of population was greater in the areas outside the central city than within the central city in all Ohio SMSA's except Lima and Steubenville-Weirton; in all but these two metropolitan areas the central cities represented smaller percentages of their total metropolitan area populations in 1963 than in 1960.

Estimated Future Population. By November 1, 1968, the population of the Springfield HMA is expected to total 158,350. This represents an annual increment of 3,250 during the November 1, 1966-November 1, 1968 forecast period. The future rate of population growth is based upon anticipated employment gains approximating 1,200 during each of the next two years, and on the expectation that college enrollment will grow at a slightly higher rate than in recent years. Future population increases are expected to approximate the past geographic pattern of growth, with the major portion of the gain occurring in suburban areas outside the city of Springfield.

Net Natural Increase and Migration. Between April 1950 and April 1960, net natural increase (excess of live births over deaths) in the Springfield HMA numbered about 18,235. When compared with a total population increase of 19,775 during this period, a net in-migration of about 1,550 is indicated. During the April 1, 1960 to November 1, 1966 period, the population gain of 20,400 resulted from a net natural increase of 10,325 and an in-migration of 10,075. The following table presents the components of population change between April 1, 1950 and November 1, 1966. Between 1950 and 1960, in-migration proceeded at an annual rate of 150 persons a year, while during the 1960-1966 period an average of 1,525 persons migrated into the HMA annually.

Components of Population Change
Springfield, Ohio, HMA
April 1, 1950 to November 1, 1966

Source of change	April 1, 1950-March 31, 1960	April 1, 1960-November 1, 1966
Total population change	19,779	20,400
Net natural increase	18,238	10,325
Migration	1,541	10,075

Sources: U. S. Census of Population Report Series P-23; U. S. Department of Health, Education, and Welfare, Vital Statistics of the U. S.; estimates by Housing Market Analyst.

Households

Housing Market Area. Since April 1, 1960, the number of households (occupied housing units) in the Springfield HMA has increased by about 6,025 to a total of 44,950 as of November 1, 1966 (see table III). The current total represents an average annual gain of about 915 households since April 1, 1960. Household growth since 1960 has been more rapid than during the 1950-1960 decade. Between 1950 and 1960, the number of households in the HMA increased by about 6,200, an average annual increment of nearly 625[1]. Annual household growth rates rose from an average of 1.8 percent a year in the 1950-1960 decade to an average rate of 2.3 percent a year between 1960 and 1966.

City of Springfield. There are approximately 27,225 households in the city of Springfield at the present time. The number of households in the city has been growing by 265 a year (1.1 percent) since April 1, 1960. Springfield recorded an increment of over 1,800 households (eight percent) during the intercensal period, rising from a 1950 level of about 23,650 to a 1960 total of approximately 25,450. Since 1960, approximately 550 households have been added to the number of households in the city of Springfield through the annexation of outlying areas.

1/ The increase in the number of households between 1950 and 1960 reflects, in part, the change in census definition from "dwelling unit" in the 1950 Census to "housing unit" in the 1960 Census.

Remainder of the HMA. Households in the remainder of the HMA currently number 17,725, 39 percent of the HMA total of 44,950. This represents an average gain of about 650 households yearly over the 13,475 households recorded by the 1960 Census. Between 1950 and 1960, approximately 450 households were added annually in the remainder of the HMA. Paralleling the trend of the HMA as a whole, the annual rate of household growth was greater in the post-1960 period than in the prior decade, 4.3 percent compared with 3.9 percent.

Annual household growth outside the city of Springfield has been proceeding at a rate two and one-half times greater than the annual increase recorded in the city of Springfield. The ratio would be even greater had not the city annexed portions of neighboring townships. The principal reasons for the substantial growth noted in the suburban portions of the HMA are availability of land suitable for new home development and relatively easy access to both Springfield and Dayton.

Household Size Trends. The average size of households in the Springfield, Ohio, HMA is 3.29 persons at the present time, essentially unchanged since 1960. Household size is expected to remain constant during the next two years.

Estimated Future Households. Based on the anticipated increase in the population during the next two years and on the assumption that the average household size will remain stable during the forecast period, there will be 46,750 households in the Springfield, Ohio, HMA by November 1, 1968. This represents an expected addition of approximately 900 new households each year during the November 1, 1966 to November 1, 1968 forecast period. Of the 900 new households, about 300 will be in the city of Springfield and approximately 600 will be dispersed throughout the remainder of the HMA.

The rate of growth forecast for households implies a continuation of the high rate of migration into the area. Should more of the new jobs forecast for the area be filled by individuals now commuting out of the HMA, or should it prove impossible to fill all of the available job openings, household growth may be somewhat below the projected level.

Housing Market Factors

Housing Supply

Housing Market Area. As of November 1, 1966, there are 46,550 housing units in the Springfield, Ohio, HMA, indicating a net gain since April 1, 1960 of about 5,650 housing units (14 percent), or an average annual increase of about 860 units. The net increase resulted from the construction of about 6,350 new units, the addition of approximately 300 trailers, and the loss of 1,000 units as a result of demolitions, conversions, fire, and other losses.

During the 1950-1960 decade, the number of housing units in the HMA increased by 7,400, from 33,500 in 1950 to 40,900 in 1960, or an average net addition of about 740 annually (see table IV). A portion of the decennial gain, however, was the result of a conceptual change from "dwelling unit" in the 1950 Census to "housing unit" in the 1960 Census. The average annual net increase of housing units during the 1960-1966 period was about 120 greater than the average yearly net addition recorded between 1950 and 1960, including the definitional increment.

City of Springfield. Currently, there are 28,275 housing units in the city of Springfield, a net gain of approximately 1,550 housing units (six percent) over the April 1960 total of 26,725. The net increment of 1,550 was the result of the construction of about 1,875 new housing units, the removal of approximately 900 units from the housing inventory, the addition of 30 trailers, and the annexation of areas containing about 550 dwelling units. During the 1950-1960 period, the number of dwelling units in the city increased by an average of 250 units annually as a result of new construction, annexations, and other inventory changes, from a total of 24,175 units in 1950 to 26,725 housing units in 1960. The annual average rate of net additions to the housing stock within the city since 1960 was slightly lower than during the 1950-1960 period. The definitional increment referred to above had its greatest impact in Springfield.

Remainder of the HMA. There are approximately 18,275 dwelling units in the remainder of Clark County at the present time, representing a net gain of 4,100 housing units (29 percent) and an average annual net increment of about 625 dwelling units since April 1960. In the previous decade, the number of housing units in the area rose from a 1950 total of 9,325 to 14,175 in 1960, an average annual increase of about 485. The increases which occurred between 1950-1960 and 1960-1966 reflect the loss of a number of units which were annexed to the city of Springfield during the two periods.

Type of Structure. The distribution of the housing inventory by units in structure has changed little since 1960. Presently, 83 percent of the housing units in the Springfield HMA are in one-unit structures (excluding trailers), compared with 82 percent as reported in the 1960 Census of Housing. The number and ratio of units in structures with five or more units and the number of trailers within the HMA showed slight increases since 1960, while the number of units in structures with from two to four units demonstrated a small decline (see following table).

Housing Inventory by Units in Structure
Springfield, Ohio, HMA
April 1, 1960 to November 1, 1966

Units in structure	April 1, 1960 Number	April 1, 1960 Percent	November 1, 1966 Number	November 1, 1966 Percent
One unit	33,561	82.1	38,575	82.9
Two to four units	5,686	13.9	5,635	12.1
Five or more units	1,304	3.2	1,700	3.7
Trailers	337	.8	640	1.3
Total units	40,888[a]	100.0	46,550	100.0

a/ Differs slightly from the count of all housing units (40,901) because units by type of structure were enumerated on a sample basis in 1960.

Sources: 1960 Census of Housing.
1966 estimated by Housing Market Analyst.

Age of Structure. Based on the 1960 Census of Housing and estimates of the volume of new construction and demolitions, it is judged that about 14 percent of the housing inventory in t e HMA was built since April 1, 1960. About 37 percent (16,975 units) of the housing stock was constructed between January 1, 1930 and March 31, 1960, while almost one-half of the housing units in the HMA were built prior to January 1, 1930 (see following table).

Distribution of the Housing Inventory by Year Built[a]
Springfield, Ohio, HMA
November 1, 1966

Year built	Number of units	Percentage distribution
April 1, 1960-October 31, 1966	6,650	14.3
1955 - March 31, 1960	4,325	9.3
1950 - 1954	4,750	10.2
1940 - 1949	4,400	9.5
1930 - 1939	3,500	7.5
1929 or earlier	22,925	49.2
Total	46,550	100.0

a/ The basic data in the 1960 Census of Housing from which the above estimates were developed reflect an unknown degree of error in "year built" occasioned by the accuracy of response to enumerators' questions as well as errors caused by sampling.

Sources: 1960 Census of Housing.
Estimates by Housing Market Analyst.

Condition. Of the 46,550 housing units currently in the Springfield, Ohio, HMA, about 4,725 units (10 percent) are dilapidated or lack some plumbing facility. This indicates an improvement in the quality of the housing in the HMA since April 1960 when 5,525 housing units, or about 14 percent of the inventory, were dilapidated or lacked one or more plumbing facilities. Demolitions coupled with a general upgrading of the housing stock are responsible for the improving trend in the condition of the inventory.

Residential Building Activity

The estimated annual volume of new residential completions in the Springfield, Ohio, HMA fluctuated considerably during the 1960-1965 period (see table V). Rising from a 1960 level of approximately 875 units to a 1961 peak of 1,225 units, the number of private residential units constructed declined to 650 in 1962. The 1962 decline permitted the absorption of the excess supply created by the high level of construction in the previous year. Between 1963 and 1964, estimated residential completions increased from 775 to 1,050 units a year. About 935 units were completed during 1965, a decline from the 1964 level. Thus far this year, 615 units have been built. There are approximately 510 housing units under construction at the present time, the majority of which will come on the market during the early part of 1967.

The volume of single-family completions paralleled the trend exhibited by total private residential completions between 1960 and 1965, increasing in 1961, 1963, and 1964 and declining in 1962 and 1965. As stated above, the decline recorded in 1962 is viewed as a reaction to the rather high rate of single-family construction occurring in 1961. The reduced rate of construction in 1962 (625 units) permitted the absorption of the over-supply created in 1961 and activity once again began to rise. Hitting a level of 680 in 1963, single-family construction attained a peak of 870 in 1964. There was a mild dip once again in 1965, as the number of units built reached a total of 800. Thus far this year, approximately 550 single-family homes were built. There are currently 250 single-family housing units in various stages of construction.

Since 1962, approximately 490 multifamily units have been built in the Springfield HMA, 85 percent of which have been built in the city of Springfield. The level of multifamily activity rose from 25 units in 1962 to a peak of 185 in 1964 (see table V). The jump in the number of multifamily units constructed annually from 90 in 1963 to 185 in 1964 was a response to employment expansion announcements made by local firms late in 1963. Activity dropped somewhat in 1965 and 1966, as 135 multifamily units were completed last year and only about 60 units were completed thus far this year. There are, however, a total of 260 units in multifamily structures presently under construction, which will result in a substantial increment in multifamily completions in 1967.

Almost 73 percent of all units constructed in the HMA since April 1960 have been built outside the city of Springfield. As might be expected, the major portion of the multifamily units (415 units or 85 percent) were built in Springfield, while the greater share of single-family activity has been in the remainder of the HMA (4,400 units or 78 percent).

Units Under Construction. Based on building permit data, a postal vacancy survey, and supplemental information obtained in the Springfield area, there are estimated to be about 510 housing units under construction in the Springfield, Ohio, HMA as of November 1, 1966. About 250 of the units are single-family homes and approximately 260 are in multifamily projects. Approximately 50 single-family units and 210 multifamily units are under construction in the city of Springfield; 200 single-family homes and 50 units in multiple-unit structures are in various stages of construction in the remainder of the HMA.

Demolition. Since April 1, 1960, an estimated 1,000 housing units have been removed from the housing inventory, including approximately 900 units in the city of Springfield and 100 units in the remainder of the HMA. About 25 residential units were demolished as a result of land clearance for the North Hill Urban Renewal Project, and another 40 homes were demolished to make way for the proposed route of Interstate 70. Losses as a result of private action have been the main source of demolition activity in the Springfield area; well-located properties are being cleared for more intensive utilization. Over the next two years, it is anticipated that a total of about 300 units will be removed from the inventory.

Tenure of Occupancy

Current Estimate. As of November 1, 1966, about 66 percent (29,850 units) of the occupied housing stock in the Springfield HMA is owner-occupied and 34 percent (15,100 units) is renter-occupied. Owner-occupancy is greatest in the rural areas of the HMA; approximately 80 percent of the occupied units outside the city of Springfield are owner occupied. The ratio of owner-occupancy presently stands at 57 percent in the city of Springfield. The following table shows the trend of tenure change for all occupied units and table VI presents tenure changes in greater detail.

Trend of Tenure Change
Springfield, Ohio, HMA
1950, 1960, and 1966

Tenure	April 1, 1950	April 1, 1960	November 1, 1966
Total occupied	32,733	38,931	44,950
Owner-occupied	18,764	24,858	29,850
Percent of total	57.3%	63.9%	66.4%
Renter-occupied	13,969	14,073	15,100

Sources: 1950 and 1960 Censuses of Housing.
1966 estimated by Housing Market Analyst.

Past Trend. Since April 1, 1950, there has been an increase in the proportion of owner-occupied housing units. The 66 percent owner-occupancy ratio in November 1966 compares with a ratio of 64 percent in April 1960 and about 57 percent in April 1950. Owner-occupancy has been increasing in both the urban and rural sectors of the HMA. In the city of Springfield, the rate of increase has been declining, however, as the ratio of owner-occupied units to total occupied units increased only from 56.6 percent in 1960 to 57.3 percent, currently. Between 1950 and 1960, there was an absolute decline in the number of renter-occupied units; since 1960, however, there has been a net increase of over 550 units in the city.

Vacancy

April 1960 Census. According to the April 1960 Census of Housing, there were about 1,225 vacant, nondilapidated, nonseasonal housing units available for rent or sale in the Springfield HMA, an available vacancy ratio of 3.1 percent. About 300 of the available vacancies were for sale, equal to a homeowner vacancy ratio of 1.2 percent. The remaining 925 vacant units were for rent, representing a renter vacancy ratio of 6.1 percent (see table VII). Available vacancies in 1960 included about 275 units that lacked one or more plumbing facilities, of which about 25 were for sale and 250 were for rent. In addition, there were over 735 vacant units which were seasonal, dilapidated, held for occasional use, or held off the market for other reasons.

Rental Vacancies by Type of Structure. As reported by the 1960 Census of Housing, almost 63 percent of renter-occupied housing units were one-unit structures (see following table). One-unit structures, however, accounted for just 40 percent of units available for rent. Units in structures containing two to nine units comprised almost 35 percent of the renter-occupied inventory, but accounted for 55 percent of available renter vacancies. Structures with ten or more units represented less than three percent of renter-occupied housing units and accounted for approximately five percent of available rental vacancies. There has been a withdrawal of some single-family houses that were offered for rent in 1960 as a result of a tightening in the sales market in the past six years. There also have been 690 multifamily units constructed since 1960 which have been offered for rent. As a result, single-family units represent a smaller proportion of all units available for rent at the present time.

Renter-Occupied Units and Vacant Units for Rent
By Type of Structure
Springfield, Ohio, HMA
April 1960

Type of structure	Renter-occupied Number	Renter-occupied Percent	Available for rent Number	Available for rent Percent
1 unit[a/]	8,814	62.8	366	40.3
2 to 9 units	4,840	34.5	498	54.8
10 to 19 units	248	1.8	34	3.7
20 or more units	132	.9	11	1.2
Total	14,034[b/]	100.0	909[b/]	100.0

a/ Includes trailers.
b/ Differs from the count of all renter-occupied units and all vacant units available for rent because units by type of structure were enumerated on a sample basis.

Source: 1960 Census of Housing.

Postal Vacancy Survey. A postal vacancy survey was conducted in the Springfield HMA in October 1966 by all post offices having city delivery routes. The survey covered 42,875 possible deliveries, or about 92 percent of the current housing inventory. At the time of the survey, almost 910 units were vacant (2.1 percent of all residences and apartments), of which 820 were previously occupied and 90 were new units. In addition, about 440 new units were reported in various stages of construction. The table below presents the results of the postal vacancy survey; a more detailed presentation of the survey results is shown in table VIII.

Postal Vacancy Survey
Springfield, Ohio, HMA
October 10-12, 1966

Type of delivery	Total possible deliveries	Vacant units: Used	New	All	Percent of total deliveries
Residence	40,994	580	89	669	1.6
Apartment	1,882	239	1	240	12.8
Total	42,876	819	90	909	2.1

Source: Post Offices in Clark County.

A total of 41,000 residences were surveyed, of which 670 (1.6 percent) were vacant; 580 previously had been occupied and 90 were newly completed units. A total of about 205 residences were found to be under construction.

Among the 1,875 apartment units covered, 12.8 percent were vacant. The carriers reported as vacant 240 units previously occupied and only one new unit. There were 235 apartment units under construction on the survey dates.

In a postal vacancy survey it is not feasible to collect qualitative data on vacant units. The resultant vacancy data are not entirely comparable with the data published by the Bureau of the Census because of differences in definition, area delineations, and methods of enumeration. The Census reports units and vacancies by type of structure. The Post Office Department defines a "residence" as a unit representing one stop for one delivery of mail (one mailbox). These are principally single-family homes, but include some duplexes, row-type houses, and structures with additional units created by conversion. An "apartment" is a unit on a stop where more than one delivery of mail is possible. Postal surveys omit vacancies in limited areas served by post office boxes and tend to omit units in subdivisions under construction. Although the postal vacancy survey has obvious limitations, when used in conjunction with other vacancy indicators, the survey serves a valuable function in the derivation of estimates of local market conditions.

Current Estimate. It is estimated that there are about 900 nondilapidated, nonseasonal vacant housing units available for rent or sale in the Springfield, Ohio, HMA at the present time. Of this total, 250 are for sale and 650 are for rent, equal to homeowner and renter vacancy ratios of 0.8 and 4.1 percent, respectively. Presently, approximately 15 vacant sales units and 125 vacant rental units lack some or all plumbing facilities. In addition to those units for sale or rent, there are 700 vacant units which are dilapidated, seasonal, or are not available for various other reasons. These estimates are based upon the postal vacancy survey, with adjustments for areas not covered by the survey, units not covered in the survey areas (in dilapidated structures or otherwise not intended for occupancy), seasonal units, and units which have been sold or rented and are awaiting occupancy. Additional adjustments were made to bring the survey data into conformity with the concept of owner and renter units used in this study rather than with the post office definitions of residences and apartments.

Sales Market

General Market Conditions. Although the volume of new sales housing marketed in the Springfield HMA has declined in the past few months, volume has improved since 1960. The shortage of mortgage funds has resulted in a cutback in both home purchases and construction activity during the last six months.

Sales vacancies have declined from a total of 310 in 1960 to a current figure of 250 available units. Net additions to the sales inventory from 1960 to the present have averaged 850 units annually and, until the beginning of 1966, market reception to the level of new construction has been relatively good. The new home market has been supported by families who are upgrading from older to newer quarters, while the existing market seems to be more attractive to in-migrating families.

Since land has become relatively scarce within the urbanized areas of the HMA, construction of new homes has spread into the suburban fringe. Subdivisions ring the city of Springfield and, with the exception of a few scattered individual sites, home building within Springfield is limited to the extreme northern and eastern sections of the city.

The most popular price range for new residential units is from $12,500 to $20,000. Very little new sales housing is built in the price ranges over $30,000 or below $12,500. Demand appears to be greatest for units with three bedrooms and a basement. There has been increasing demand, however, for four-bedroom units during the past twelve months. Until the recent decline in the sales market, few new homes had proved difficult to sell, with the exception of two-bedroom units or homes with only one bath. The market for older homes has been good and realtors in the area reported as troublesome only homes which are 35 years old or more or those houses having high ceilings, which present a problem with respect to heating costs.

Builders have become cautious in the past few months and, although 25 percent of the new construction reported in the last FHA unsold inventory survey (see table IX) was built speculatively, there are very few speculative units being built at the present time.

Prices of older homes have remained static over the past two years. New home prices, however, reflect increased land and construction costs and have risen considerably since 1960.

Subdivision Activity. There are a number of subdivisions in the Springfield area which are active at the present time. In 1965, eleven subdivisions were recorded with a total of 450 lots. The number of subdivisions (and lots therein) recorded each year has fluctuated in recent years and the table below presents the trend of subdivision activity in Clark County between 1958 and 1965.

Recorded Subdivisions
Springfield, Ohio, HMA
1958-1965

Year	Number of subdivisions	Number of lots
1958	10	300
1959	16	343
1960	18	626
1961	13	572
1962	19	793
1963	10	403
1964	14	851
1965	11	451

Source: Springfield, Ohio, Chamber of Commerce.

Speculative Construction. Based on a survey of new sales housing conducted by the FHA Columbus Insuring Office, which included all subdivisions in the Springfield HMA in which five or more sales houses were completed during the twelve months preceding the survey, houses constructed speculatively accounted for about 25 percent of new construction at the start of 1966. Remaining relatively stable in 1963 and 1964 at 16 percent of the units built, the ratio of speculatively-constructed units rose to 25 percent in 1965 (see table X). Since January 1, 1966, the date of the last survey, the proportion of units being built speculatively has declined considerably as a result of a recent drop in new home sales activity.

Unsold Inventory of New Houses. The January 1966 FHA unsold inventory survey covered nine subdivisions, in which 575 houses were reported to have been completed. Of the total, 432 (75 percent) were sold before construction started. Forty-one of the 143 houses built speculatively during 1965 remained unsold as of January 1, 1966, representing 29 percent of speculative construction. Of the 41 unsold houses, 30 had been on the market for three months or less and eleven new houses had remained unsold for four months or longer.

The high percentage of speculatively-built homes, 29 percent, which remained unsold at the time of the survey is not necessarily indicative of an over-built market situation. Thirty of the unsold units were placed on the market after October 1st and new home sales usually decline substantially in the last quarter of the year regardless of the demand-supply relationship. In all of the last three unsold inventory surveys, the majority of the unsold units had been completed for three months or less at the time of the survey.

Rental Market

General Market Conditions. Virtually all of the new apartment projects in the area are completely occupied and local sources report that a high percentage of the units in projects built during the past three years have been rented before the completion of construction. As indicated by the current renter vacancy ratio of four percent, the rental market in the Springfield area is firm. Many of the vacancies which do exist at the present time are in old, less competitive units close to the central city and in old single-family houses which are difficult to sell. The rate of multifamily construction has slowed somewhat during the latter part of 1966, however. This situation is not a response to a lack of demand potential but rather a postponement of proposed rental projects caused by the recent shortage of construction financing.

Recent multifamily construction has been clustered in two areas of the HMA, along East High Street in Springfield and in an area north of the city. Zoning has been a principal factor in the choice of construction sites.

A survey of newer apartments in the HMA indicates an unusually high rate of occupancy, as there was only one apartment unit reported vacant of a total of 330 units surveyed. Distance from downtown Springfield appears to be the principal determinant of rental charges. Land in the outlying areas can be developed much more cheaply than the urban properties which bear the cost of land clearance. Monthly rents in the Springfield HMA typically exclude the cost of utilities. There has been a predominance of two-bedroom units in the newer projects; almost 80 percent of the rental units surveyed were two-bedroom apartments.

In 1960, single-family homes represented over 60 percent of the units occupied by renters and they still account for a major portion of the rental inventory. Almost all of the single-family rentals are old units, as the rental of new homes usually is not economically feasible. The greatest market for single-family rentals lies in the small units with two or three bedrooms. As in the sales market, the larger, old homes which are difficult to heat are slow in renting.

Urban Renewal

The North Hill One (R-54) renewal project encompasses an area bounded roughly by Madison Avenue on the north, Limestone Street on the east, the D. T. and I. Railroad on the south, and Plum Street on the west. The project is in execution and most of the land has been cleared; 25 housing units were demolished. The project area includes properties which have been purchased by Wittenberg University for use in future expansion.

The North Hill Two renewal project is an extension of North Hill One. The project is in the planning stage at the present time but is rapidly nearing the execution phase. The area is bounded by Stanton Avenue, the D.T. and I. Railroad, and Limestone Street. Plans call for the purchase of 172 properties with an option offer on another 100 which can be either rehabilitated by the owner or sold to the renewal agency. Project re-use will be residential in nature with no definite density figure set as yet.

Public Housing

There are 210 units of low-income, public housing (OH 21-1) in the Springfield HMA, all of which are under the administration of the Springfield Housing Authority. The units were completed late in 1965 and are all occupied at the present time. There are 35 one-story units occupied by elderly persons and 175 two-story units occupied by low-income families. There is a proposal for an additional 150 units of high-rise elderly housing (OH 21-2) pending federal approval.

Demand for Housing

Quantitative Demand

The demand for new housing in the Springfield, Ohio, HMA is based upon the projected net addition of 900 households annually during each of the next two years. Adjustments have been made to this basic growth factor for the anticipated volume of residential demolitions and the current level of new construction. Consideration also has been given to changes expected in the tenure of occupancy of the inventory and the probability that some part of the demand for rental units will be supplied by existing single-family houses now occupied by owners.

Based on these considerations, a demand for 1,050 new residential housing units is forecast for each year during the November 1, 1966 to November 1, 1968 period. The most desirable demand-supply balance in the market will be achieved if 850 units of the annual demand for new units are supplied as single-family homes and 200 units are in multifamily structures, excluding public low-rent housing or rent-supplement accommodations. At the lower rents achievable with below-market-interest-rate financing or assistance in land acquisition and cost, an additional 100 units can be absorbed.

The projected annual demand for single-family homes (850 units) is slightly above the number of single-family units added to the inventory in 1965 (800 units) but somewhat below the construction level of 1964 (870 units). Multifamily demand (200 units annually) is greater than the number of unit completions in 1965 (135 units) and 1964 (180 units). The projected level of multifamily demand reflects not only the economic growth expected over the next two years, but also the rising demand for apartment rentals and, conversely, a declining supply of single-family rental units.

Future building activity is expected to be distributed within the HMA much as in the past. The bulk of new multifamily units will be concentrated in the city of Springfield, while most of the single-family units will be constructed in the townships adjacent to the city and in Mad River and Bethel Townships to the west.

The absorption of the large number of units in multifamily structures that will come on the market during the forecast period should be observed closely, and appropriate adjustments made if these units are not absorbed readily. The projection for the next two years assumes the ability of the economy not only to generate an additional 1,200 jobs per year during the next two years, but also to fill these positions with substantial worker in-migration. Should the economy fail to realize the predicted level of employment growth or should employment increase at a rate in excess of the expected level, demand during the next two years will diminish or increase accordingly.

Table I

Workers Covered Under Ohio Unemployment Compensation Law
By Industry Group
Springfield, Ohio, HMA, 1960-1965

Industry	1960	1961	1962	1963	1964	1965
Total covered employment	27,920	27,724	28,775	29,795	30,013	31,668
Manufacturing	14,772	14,761	15,365	16,319	16,289	17,469
Durable goods	13,122	13,127	13,720	14,664	14,540	15,660
Lumber, wood products	46	43	58	76	77	116
Stone, clay, and glass prod.	180	174	108	111	120	275
Primary metal industries	716	629	639	723	424	383
Fabricated metal products	1,178	1,211	1,311	1,189	1,153	1,271
Nonelectrical machinery	3,502	4,113	4,195	4,572	4,868	5,497
Electrical machinery	1,503	- a/	1,762	1,721	1,633	1,808
Transportation equipment	4,951	4,340	4,481	5,192	5,187	5,184
Instruments; optical goods	419	430	450	385	384	454
Other durable goods	628	2,187a/	704	696	695	672
Nondurable goods	1,650	1,634	1,646	1,655	1,749	1,809
Food and kindred products	726	728	727	711	729	773
Apparel; other fabric prod.	45	42	44	47	45	49
Paper and allied products	144	150	157	151	139	139
Printing and allied industries	480	462	477	472	501	515
Leather and leather prod.	233	237	234	239	284	271
Other nondurable goods	22	16	7	35	51	62
Mining and quarrying	42	41	45	50	59	61
Contract construction	1,328	1,213	1,187	1,275	1,451	1,642
Transportation and utilities	1,860	1,863	1,903	1,848	1,772	1,739
Trade	6,160	6,028	6,211	6,301	6,444	6,554
Wholesale	854	813	832	830	795	802
Retail	5,305	5,215	5,378	5,470	5,649	5,752
Finance, insurance, & real estate	1,325	1,378	1,432	1,412	1,376	1.413
Services	2,317	2,347	2,552	2,526	2,561	2,718
Not elsewhere classified	117	94	81	65	63	72

a/ Electrical machinery included in other durable goods in 1961.

Note: Averages for subtotals may not add to totals because of the averaging of monthly data.

Source: Ohio Bureau of Unemployment Compensation.

Table II

All Families and Renter Households by Annual Income
After Deducting Federal Income Tax
Springfield, Ohio, HMA, 1966 and 1968

Income	Percentage distribution			
	1966		1968	
	All families	Renter households[a/]	All families	Renter households[a/]
Under $3,000	11	14	9	13
$ 3,000 - 3,999	6	10	6	9
4,000 - 4,999	7	11	7	10
5,000 - 5,999	11	12	9	11
6,000 - 6,999	12	14	11	12
7,000 - 7,999	11	13	11	14
8,000 - 8,999	9	8	10	8
9,000 - 9,999	8	5	8	6
10,000 - 12,499	13	8	14	10
12,500 - 14,999	6	3	8	5
15,000 and over	6	2	7	2
Total	100	100	100	100
Median	$7,275	$6,250	$7,725	$6,600

a/ Excludes one-person renter households.

Source: Estimated by Housing Market Analyst.

At the lower rents achievable with below-market-interest-rate financing or assistance in land acquisition and cost, an additional 100 units may be absorbed. These 100 units would be distributed best with respect to unit size in the following manner: five efficiencies, 30 one-bedroom units, 45 two-bedroom units, and 20 three-bedroom units. The location factor is of especial importance in the provision of new units at the lower-rent levels. Families in this user group are not as mobile as those in other economic segments; they are less able or willing to break with established social, church, and neighborhood relationships, and proximity to place of work frequently is a governing consideration in the place of residence preferred by families in this group. Thus, the utilization of lower-priced land for new rental housing in outlying locations to achieve lower rents may be self-defeating unless the existence of a demand potential is clearly evident.

Demand for Elderly Housing. Based on the projected multifamily demand and the number of elderly persons residing in the HMA, it is estimated that there will be a demand on the part of elderly households for approximately 50 units over the next two years, excluding public low-rent units and rent-supplement accommodations. As with units provided at lower-rent levels, the location factor is of especial importance. Households in this user group are not as mobile as those in other age segments and proximity to recreational and shopping facilities frequently is a primary consideration in the place of residence preferred. Some of the demand generated by elderly persons will be satisfied through conventional (nonelderly) units, however.

Nursing Homes

Existing Nursing Homes. At the present time, there are 28 institutions in the Springfield HMA which provide skilled nursing and dietary care for persons who are ill or incapacitated or which provide service for the rehabilitation of persons who are convalescing from illness or incapacitation. There are a total of about 1,130 beds in nursing homes in the area, 570 of which are in philanthropic or church-affiliated institutions. Almost all of the proprietory homes report favorable levels of occupancy as only 55 out of a total of 560 beds (10 percent) are currently unoccupied. Fifteen of the unoccupied beds, however, were in a nursing home which started operations this year; sufficient time has not elapsed to permit absorption. About half of the available bed capacity is occupied by patients receiving state assistance for nursing care services. Ohio Aid-to-the-Aged payments range from $150 to $175 for general nursing care; private rates vary from about $160 to $450, depending upon the extent of the care and services provided.

All nursing homes in the HMA are licensed by the state; these homes require nurses on duty and are classified as skilled homes. In addition, the nursing care facilities have been classified as to conformity to state criteria with regard to fire safety, methods of operation, and control of infection. In 1965, 400 proprietary beds were classified as "nonconforming" to state standards, but the Ohio Department of Health reports that almost all of the nonconforming beds can be modernized to meet both state standards and federal regulations under Medicare.

Currently, there are no nursing homes under construction in the HMA, but new additions to existing structures will add approximately 75 proprietary beds to the current total of 560. Based on the projected nonfarm elderly population in the HMA and the typical ratio of nursing care beds to the elderly population, there is a medical need for 410 nursing home beds in the HMA in excess of the 730 existing units which conform to state standards. In order to determine demand for private nursing care facilities, adjustments to the medical need must be made for ability of the elderly population to pay for such services, with consideration also given to the suitability of existing accommodations, the current and projected availability of public facilities, and the current level of vacancy. Based on these considerations, it is judged that as many as 150 additional proprietary beds might be provided in the HMA. However, the fact that a large portion of this prospective demand is now being met by existing "unsuitable" beds in facilities that can be modernized to meet federal standards suggests that the provision of additional facilities should be in small increments to determine their market absorption in competition with existing "unsuitable" facilities. Should the licenses of existing homes not be renewed, the market for new accommodations would be strengthened, of course.

Qualitative Demand

Single-Family Units. Based on current family after-tax incomes, on typical ratios of income to purchase price, and on recent market experience, the annual demand for 850 single-family units is expected to be distributed by sales price as shown in the following table.

Estimated Annual Demand for New Single-family Housing
Springfield, Ohio, HMA
November 1, 1966 to November 1, 1968

Price range	Number of units	Percent of total
Under $12,500	75	9
$12,500 - 14,999	200	24
15,000 - 17,499	175	20
17,500 - 19,999	150	18
20,000 - 24,999	125	15
25,000 - 29,999	65	7
30,000 - 34,999	35	4
35,000 and over	25	3
Total	850	100

The distribution shown above differs from that in table IX, which reflects only selected subdivision experience during the years 1963-1965. It must be noted that the 1963, 1964, and 1965 data do not include new construction in subdivisions with less than five completions during each year, nor do they reflect individual or contract construction on scattered lots. It is likely that the more expensive housing construction and some of the lower value homes are concentrated in the smaller building operations which are quite numerous. The demand estimates above reflect all home building and indicate a greater concentration in some price ranges than a subdivision survey would reveal.

Multifamily Units. The monthly rental at which privately-owned net additions to the aggregate multifamily housing inventory might best be absorbed by the market are indicated for various size units in the following table. These 200 net additions may be accomplished by either new construction or rehabilitation at the specified rentals without public benefits or assistance through subsidy, tax abatement, or aid in financing or land acquisition. The minimum gross rents at which new privately-owned multifamily units can be produced in the HMA at market-interest-rate financing are approximately $100 a month for efficiencies, $120 for one-bedroom units, $140 for two-bedroom units, and $160 for three-bedroom units.1/

Estimated Annual Demand for Additional Multifamily Housing
Springfield, Ohio, HMA
November 1, 1966 to November 1, 1968

Unit size	Number of units	Monthly gross renta/
Efficiency	15	$100 and over
One-bedroom	15	$120 -$129
	30	130 - 149
	20	150 - 169
	15	170 and over
Two-bedroom	15	$140 -$149
	30	150 - 179
	35	180 and over
Three-bedroom	10	$160 -$179
	15	180 and over
Total	200	

a/ Includes all utilities.

The preceding distribution of average annual demand for new apartments is based on projected tenant-family income, the size distribution of tenant households, and rent-paying propensities found to be typical in the area; consideration is also given to the recent absorption experience of new rental housing. Thus, it represents a pattern for guidance in the production of rental housing predicated on foreseeable quantitative and qualitative considerations. Individual projects may differ from the general pattern in response to specific neighborhood or submarket requirements.

1/ Calculated on the basis of a long-term mortgage (40 years) at six percent interest and 1½ percent annual curtail; changes in these assumptions will affect minimum rents accordingly.

Table III

Population and Household Changes
Springfield, Ohio, HMA
April 1, 1950 to November 1, 1966

				Average annual change			
				1950-1960		1960-1966	
Population	1950	1960	1966	Number	Percent[a]	Number[b]	Percent[a]
HMA total population	111,661	131,440	151,850	1,978	1.6	3,100	2.3
City of Springfield	78,508	82,723	87,875	422	.5	775	1.0
Remainder of HMA	33,153	48,717	63,975	1,556	3.9	2,325	4.2
Households							
HMA total households	32,733	38,931	44,950	619	1.8	915	2.3
City of Springfield	23,640	25,464	27,225	182	.8	265	1.1
Remainder of HMA	9,093	13,467	17,725	437	3.9	650	4.3

a/ Derived through the use of a formula designed to calculate the rate of change on a compound basis.
b/ Rounded.

Sources: 1950 and 1960 Censuses of Population and Housing.
1966 estimated by Housing Market Analyst.

Table IV

Trend of Housing Inventory
Springfield, Ohio, HMA
April 1, 1950 - November 1, 1966

Area	April 1, 1950	April 1, 1960	November 1, 1966	Average annual change 1950-1960 Number	Average annual change 1950-1960 Rate a/	Average annual change 1960-1966 Number b/	Average annual change 1960-1966 Rate a/
HMA total housing units	33,507	40,901	46,550	739	2.0	860	2.0
City of Springfield	24,183	26,717	28,275	253	.9	235	.9
Remainder of HMA	9,324	14,184	18,275	486	4.2	625	4.0

a/ Derived through the use of a formula designed to calculate the rate of change on a compound basis.

b/ Rounded.

Sources: 1950 and 1960 Censuses of Housing.
1966 estimated by Housing Market Analyst.

Table V

New Private Housing Units Built a/
Springfield, Ohio, HMA
1960 - November 1, 1966

Area	1960	1961	1962	1963	1964	1965	Jan.-Oct. 1966	Total
HMA total	885	1,233	650	771	1,055	937 b/	615	6,146
1 unit	885	1,233	626	683	870	802	558	5,657
2-4 units	-	-	4	[illegible]	2	- b/	-	18
5 or more units	-	-	20	76	183	135	57	471
Springfield City total	219	233	168	278	318	275 b/	179	1,670
1 unit	219	233	160	230	149	140	122	1,253
2-4 units	-	-	-	-	-	- b/	-	-
5 or more units	-	-	8	48	169	135	57	417
Remainder of HMA	666	1,000	482	493	737	662	436	4,476
1 unit	666	1,000	466	453	721	662	436	4,404
2-4 units	-	-	4	12	2	-	-	18
5 or more more units	-	-	12	28	14	-	-	54

a/ Does not include 510 units under construction.
b/ Does not include 210 public housing units.

Sources: Completions estimated by Housing Market Analyst from data supplied by Building Inspector, City of Springfield; County Auditor, Clark County; Chamber of Commerce, City of Springfield.

Table VI

Trend of Household Tenure
Springfield, Ohio, HMA
April 1, 1950 - November 1, 1966

Tenure	City of Springfield	Remainder of HMA	HMA total
April 1, 1950:			
Total housing inventory	24,183	9,324	33,507
Total occupied	23,640	9,093	32,733
Owner-occupied	12,421	6,343	18,764
Percent of total occupied	52.5	69.8	57.3
Renter-occupied	11,219	2,750	13,969
Percent of total occupied	47.5	30.2	42.7
Total vacant	543	231	774
April 1, 1960:			
Total housing inventory	26,717	14,184	40,901
Total occupied	25,464	13,467	38,931
Owner-occupied	14,404	10,454	24,858
Percent of total occupied	56.6	77.6	63.9
Renter-occupied	11,060	3,013	14,073
Percent of total occupied	43.4	22.4	36.1
Total vacant	1,253	717	1,970
November 1, 1966:			
Total housing inventory	28,275	18,275	46,550
Total occupied	27,225	17,725	44,950
Owner-occupied	15,600	14,250	29,850
Percent of total occupied	57.3	80.4	66.4
Renter-occupied	11,625	3,475	15,100
Percent of total occupied	42.7	19.6	33.6
Total vacant	1,050	550	1,600

Sources: 1950 and 1960 Censuses of Housing.
1966 estimated by Housing Market Analyst.

Table VII

Vacancy Trends
Springfield, Ohio, HMA
April 1, 1950 - November 1, 1966

Vacancy characteristics	City of Springfield	Remainder of HMA	HMA total
April 1, 1950:			
Total vacant units	543	231	774
Available vacant units	262	61	323
For sale	48	31	79
Homeowner vacancy rate	.4%	.5%	.4%
For rent	214	30	244
Rental vacancy rate	1.9%	1.1%	1.7%
Other vacant units	281	170	451
April 1, 1960:			
Total vacant units	1,253	717	1,970
Available vacant units	870	363	1,233
For sale	129	182	311
Homeowner vacancy rate	.9%	1.7%	1.2%
For rent	741	181	922
Rental vacancy rate	6.3%	5.7%	6.1%
Other vacant units	383	354	737
November 1, 1966:			
Total vacant units	1,050	550	1,600
Available vacant units	670	230	900
For sale	135	115	250
Homeowner vacancy rate	.9%	.8%	.8%
For rent	535	115	650
Rental vacancy rate	4.4%	3.2%	4.1%
Other vacant units	380	320	700

Sources: 1950 and 1960 Censuses of Housing.
1966 estimated by Housing Market Analyst.

Table VIII

Springfield, Ohio, Area Postal Vacancy Survey

October 10-12, 1966

Postal area	Total residences and apartments: Total possible deliveries	Vacant units: All	Vacant units: %	Vacant units: Used	Vacant units: New	Under const.	Residences: Total possible deliveries	Vacant units: All	Vacant units: %	Vacant units: Used	Vacant units: New	Under const.	Apartments: Total possible deliveries	Vacant units: All	Vacant units: %	Vacant units: Used	Vacant units: New	Under const.	House trailers: Total possible deliveries	Vacant: No.	Vacant: %
The Survey Area Total	42,876	909	2.1	819	90	438	40,994	669	1.6	580	89	206	1,882	240	12.8	239	1	232	635	42	6.6
Springfield	37,509	765	2.0	713	52	366	35,765	537	1.5	486	51	150	1,744	228	13.1	227	1	216	358	34	9.5
Medway	1,026	27	2.6	26	1	25	952	23	2.4	22	1	9	74	4	5.4	4	0	16	193	2	1.0
New Carlisle	4,341	117	2.7	80	37	47	4,277	109	2.5	72	37	47	64	8	12.5	8	0	0	84	6	7.1

The survey covers dwelling units in residences, apartments, and house trailers, including military, institutional, public housing units, and units used only seasonally. The survey does not cover stores, offices, commercial hotels and motels, or dormitories; nor does it cover boarded-up residences or apartments that are not intended for occupancy.

The definitions of "residence" and "apartment" are those of the Post Office Department, i. e.: a residence represents one possible stop with one possible delivery on a carrier's route; an apartment represents one possible stop with more than one possible delivery.

Source: FHA postal vacancy survey conducted by collaborating postmaster(s).

Table IX

FHA Unsold Inventory Surveys
Springfield, Ohio, HMA
1963-1965

Sales price	Total completions	Houses sold before construction start	Speculative homes			
			Total	Number sold	Number unsold	Unsold as percent of total
January 1, 1964						
Under $12,500	-	-	-	-	-	-
$12,500 - 14,999	234	194	40	32	8	20%
15,000 - 17,499	178	155	23	16	7	30
17,500 - 19,999	24	20	4	4	0	0
20,000 - 24,999	30	25	5	4	1	20
25,000 and over	22	18	4	4	0	0
Total	488	412	76	60	16	21
January 1, 1965						
Under $12,500	137	134	3	1	2	67%
$12,500 - 14,999	209	183	26	17	9	35
15,000 - 17,499	156	123	33	23	10	30
17,500 - 19,999	34	29	5	3	2	40
20,000 - 24,999	41	16	25	18	7	28
25,000 and over	27	23	4	4	0	0
Total	604	508	96	66	30	31
January 1, 1966						
Under $12,500	33	27	6	5	1	17%
$12,500 - 14,999	260	221	39	26	13	33
15,000 - 17,499	126	83	43	29	14	33
17,500 - 19,999	64	43	21	16	5	24
20,000 - 24,999	50	30	20	15	5	25
25,000 and over	42	28	14	11	3	21
Total	575	432	143	102	41	29

Source: Federal Housing Administration, Columbus, Ohio, Insuring Office.