



COLUMBUS DEVELOPMENT STRATEGY



City of Columbus  
Mayor Dana G. Rinehart

Office of Management  
and Budget  
Strategic Planning

# Growth Potential



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# INTRODUCTION

# PREFACE

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The City of Columbus is pleased to present for your consideration this **Growth Potential Report**. This report is an attempt to document previous growth, future trends, and their implications for the residents of Columbus. As with any forecast, the degree of certainty cannot be guaranteed. The forecast is based upon the best available data and reflects conditions unique to Columbus and the surrounding region. The **Growth Potential Report** is the keystone in a series of departmental research efforts, each addressing a specific, narrower topic in greater detail. Among these are historic preservation, neighborhood change, and community improvement strategies and policies. This report also draws from data and insight gained from the **Columbus Economic Review**, a quarterly summary of the local economy and issues affecting its development.

population movements, economic growth is much more sensitive to decisions made at the State and Federal level, over which the City has little or no influence. Trends in the national and state economy also have an autonomous impact on the economic growth of the City. This report analyzes the performance of the Columbus economy within these constraints, with an emphasis on the structure of the local economy and the prospects for growth in each of its sectors. The sections on high technology and prospects for future economic growth are designed to highlight economic development issues that should be addressed in any local economic development effort.

# INTRODUCTION

This growth potential report provides a realistic look at recent demographic changes, economic conditions and development trends in the Columbus Area. While the growth potential of the Columbus Area has been examined in previous statements, the publication of the 1980 census and more recent projections of county population growth by the State of Ohio necessitate a re-examination of local growth trends and characteristics. The analysis, like those in previous growth potential studies, provides long-term projections of population, estimates of household formation and changes in economic indicators. This information, along with an analysis of recent development trends, provides an information base for capital improvements planning, land use regulation, product marketing, and site selection.

This document continues to support the basic premise that the City of Columbus should act to influence development on the basis of a vision of the future, trends in the nature of growth, and projected costs to local government of servicing future growth. The overall potential for growth and the distribution of that potential within the Central Ohio area have been examined in other studies. These studies have noted the interdependence of the two, but have also stressed that it is only the geographic distribution of population growth potential that can be significantly affected by local development and fiscal policies. The point has been made, for example, that local attitudes translated into government action and regulation can

substantially affect the geographic patterns of physical development and, indirectly, the quality of life in Columbus.

The importance of local direction and decision-making can easily be seen in the success of Columbus' geographical expansion through annexations. Local annexation and utility expansions have, over the past twenty-five years, allowed Columbus to grow by incorporating its own suburban areas in competition with suburban taxing districts. Physical expansion should not, however, be a critical issue in the next twenty years. The challenge facing Columbus in the 1980's and 1990's will be to improve the quality of life and to remain fiscally sound in a period of slow growth and potentially significant shifts in consumer characteristics.

Local economic development patterns are also affected by governmental actions and regulation. However, unlike population movements, economic growth is much more sensitive to decisions made at the State and Federal level, over which the City has little or no influence. Trends in the national and state economy also have an autonomous impact on the economic growth of the City. This report analyzes the performance of the Columbus economy within these constraints, with an emphasis on the structure of the local economy and the prospects for growth in each of its sectors. The sections on high technology and prospects for future economic growth are designed to highlight economic development issues that should be addressed in any local economic development effort.

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# DEMOGRAPHIC TRENDS 1970 TO 1980

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## POPULATION AGE STRUCTURE CHANGES

# DEMOGRAPHIC TRENDS 1970 TO 1980

## POPULATION GROWTH

Population growth in the 1970's was well below that of the 1960's for both Columbus and Franklin County. In the county, for example, average annual population growth in the 1970's was 76 percent less than that in the 1960's (Figure 1). This sharp decline in annual population growth was most evident in 1974. In that and succeeding years the county experienced an average annual net outmigration of about 5,200 persons (Figure 2). The components of population change in Franklin County are summarized for the period between 1970 and 1982 in Appendix A.

This rather sharp decline in average annual population growth at the county level reflects a change in the attractiveness of Franklin County relative to other areas of the nation. The shift from a period of net immigration to a period of net outmigration suggests that there are insufficient job opportunities in Columbus and Franklin County to attract and hold people. The underlying reason would not appear to be a loss of existing jobs in Central Ohio, but the failure to generate new job opportunities as rapidly as other parts of the country.

Average annual population growth in the City of Columbus declined by 63 percent in the 1970's (Figure 1). The City was able to avoid an actual population loss, however, by capturing, through annexation, a relatively consistent share of the growth that did occur.

Columbus, for example, captured about 70 percent of the average annual population growth between 1970 and 1980. Viewed in this way it becomes obvious that while Franklin County has lost ground as a regional population growth center, Columbus has managed to maintain its competitive position in the region. Annual population estimates for Columbus and Franklin County between 1970 and 1983 are provided in Appendix B.

These facts are highlighted not to cast doom over the future of Columbus and Franklin County, but to draw attention to significant changes in the local growth potential so that government and private industry can be better prepared to respond to these changes. Because of other demographic changes which occurred between 1970 and 1980, it is not easy to recognize the shift which has taken Columbus and Franklin County from a period of high growth to a period of slow growth.

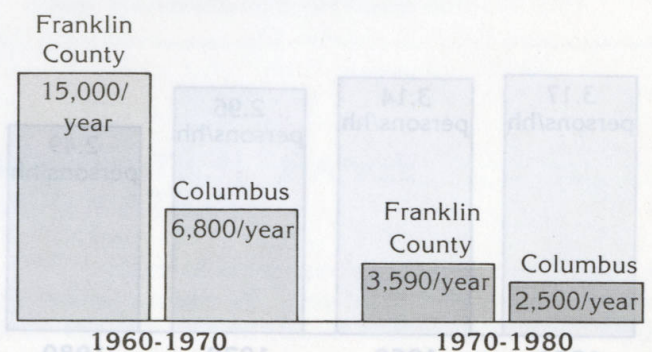
## HOUSEHOLD GROWTH

The primary reason that changes in population growth rates have not been easily recognized has been the simultaneous increase in the rate of household formation. While the rate of population growth was declining, the rate of household growth in Columbus increased in the 1970's; household growth rates were six times as high as population growth rates (Figure 3).

The strong growth of households in Columbus and Franklin County contributed to the demand for new housing and apartment construction and the consequent development of fringe areas. In fact, much of the new development in Columbus can be attributed to local household growth that was unrelated to regional population growth.

This household growth reflects changing living patterns and not a continuing pattern of regional growth and immigration. It can be attributed to the fact that people have delayed marriage in favor of living alone, to young adults of the baby-boom generation leaving home and establishing new households, to an increase in the rate of divorce which splits one family into two, and to the tendency of the growing elderly population to maintain their own homes.

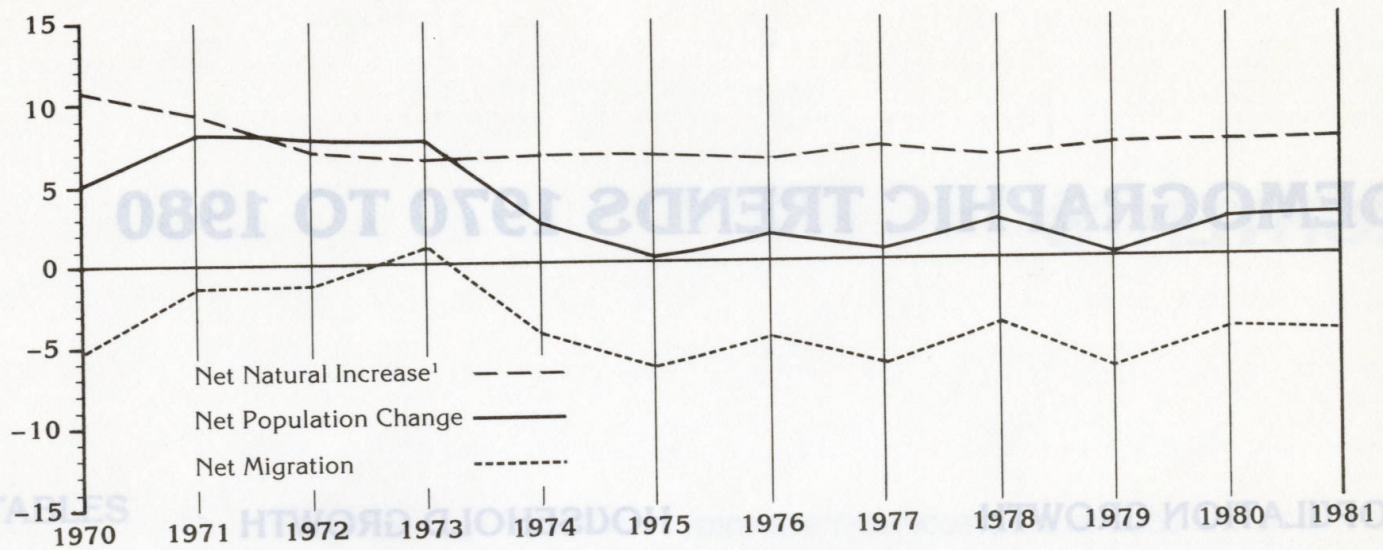
**Figure 1: Average Annual Population Growth**



Source: Franklin County and Columbus Development Department

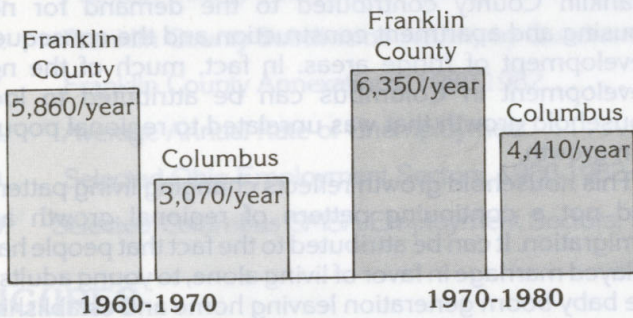


**Figure 2: Components of Population Change 1970-1982 Franklin County, Ohio**



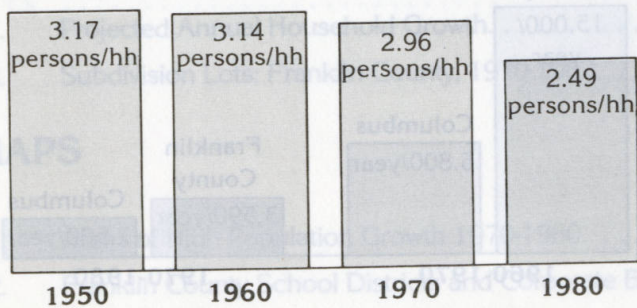
<sup>1</sup>Statistical Analysis Unit, Division of Vital Statistics, Ohio Dept. of Health

**Figure 3: Average Annual Household Growth**



Source: U.S. Census

**Figure 4: Average Household Size, City of Columbus, Ohio**



Source: U.S. Census

## HOUSEHOLD SIZE CHANGES

The fact that there are more households established or maintained and a relatively stable population base means that the number of persons per household is declining. Add to this a decrease in the birth rate, which has meant that new families have fewer children, and it is clear why there has been a dramatic change in average household size.

Average household size in Columbus declined from 2.96 persons per household in 1970 to 2.49 persons per household in 1980 (Figure 4). Of the reasons cited for this decline, the rise in the number of people living alone can be considered a major factor. One person households as a proportion of all households increased from 21 percent in 1970 to 30 percent in 1980. Households with three or more persons declined from 49 percent to 39 percent of all households.

While household size typically differs among cities, suburbs and rural areas, it is generally true that the decline in average household size is consistent across both the region and the nation as a whole.

These changes in household size have had, and will continue to have, an effect on the Columbus economy. As noted, the increasing rate of household formation has helped to maintain the rate of residential building and has contributed to the mobility of local households as they adjust their needs to the offerings of the housing market. Smaller household size and an increase in the number of single persons living alone has meant that individual household demand for certain goods and services has declined while the overall demand for dwelling unit-related goods may have increased. Thus, while the average household demand for water, electricity, home furnishings and products should decline with declining household size, the overall demand for these goods and services should increase with any increase in the overall number of households. Similarly these changing



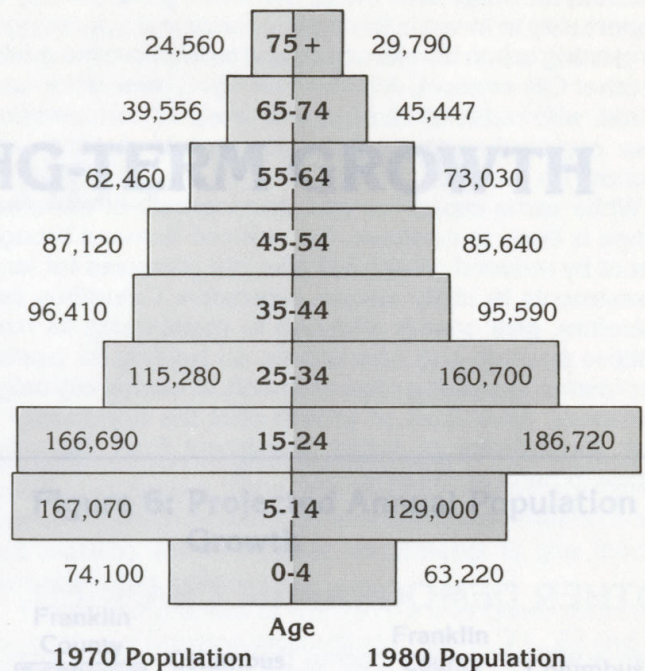
should be reflected in the qualitative aspects of consumer demand. Housing units may be smaller and their design and location more varied to accommodate the increased expression of opinion represented by overall increases in the number of consuming households.

## POPULATION AGE STRUCTURE CHANGES

The period between 1970 and 1980 also saw some important shifts in the proportion of population in different age cohorts (Figure 5). Significantly, the proportion of the population aged 5 to 14 years declined by 22.8 percent and the proportion aged 0-4 years declined by 14.7 percent. These declines reflect both a reduction in the number of babies being born into each family and a short-run reduction in the number of families in the child-bearing years. Declines in the under 14 categories are one reason that some local school districts have been faced with declining enrollments and underutilized facilities.

There have also been substantial increases in the population aged 65 and over. People are living longer and there are more people in the age groups reaching 65 years. These increases have, over a relatively short time span, contributed to the rising demands on retirement systems, health facilities and affordable housing. Given the large number of persons who will soon reach age 65 or more it is easy to see that older citizens will continue to become a powerful consumer group for public and private goods and services.

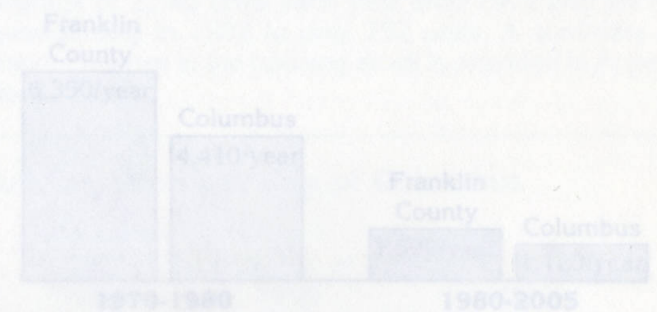
**Figure 5: Population by Age Cohort, Franklin County**



Source: U.S. Census

Source: Columbus Development Department and State of Ohio

**Figure 7: Projected Annual Household Growth**



Source: Columbus Development Department

ent increase per year. This projection while considerably below forecasts in the early 1970's is, nevertheless, an optimistic outlook for continued long-term stability (Figure 6).

Local projections using State control totals assume that the City of Columbus will continue to capture a consistent share of the County's growth. Using this assumption, the City is expected to grow by an average of 1,570 people per year over the next twenty-five years. This too is an optimistic outlook that requires that Columbus remain competitive with suburban and rural areas.

Along with a decline in the annual rate of population growth, the City and County are expected to experience a dramatic decline in the average annual growth of households. Over the period between 1980 and 2005, Franklin County is forecast to increase by an average of only 1,590 households each year. A similar drop in the average annual household growth for Columbus is expected. Columbus will add an average of 1,120 households each year over the same period (Figure 7). This dramatic drop in average annual household growth is expected because there are practical limits to increases in household formation rates caused by people choosing to live alone. Household and population forecasts for both the City of Columbus and Franklin County to the year 2005 are illustrated in Appendix C.

Given the fact that much of the real growth in households experienced between 1970 and 1980 was due to new household formation within a relatively constant population, it is easy to see that when the rate of household formation returns to a less inflated level that average annual household growth will also drop dramatically. The result of this demographic change could be significant for local retailers and housing contractors who have benefitted from past high rates of household formation.

## POPULATION CHANGE IMPLICATIONS

The impact of these projections of population and household growth will likely be to limit the expansion of both the private and public sector economies. Opportunities over the next twenty years will be created by changing demographics and changing tastes and not by an increasing support population.



# PROJECTIONS OF LONG-TERM GROWTH

## POPULATION GROWTH TO 2005

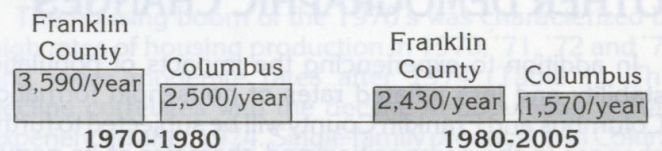
In spite of the sharp decline in the population growth rate experienced by Columbus and Franklin County over the last decade, population projections do not show an actual decline in the population base. Projections published by the State of Ohio, Department of Development, for example, assume that population growth to the year 2005 will average 2,430 persons per year in Franklin County, about a 0.3 percent increase per year. This projection while considerably below forecasts in the early 1970's is, nonetheless, an optimistic outlook for continued long-term stability (Figure 6).

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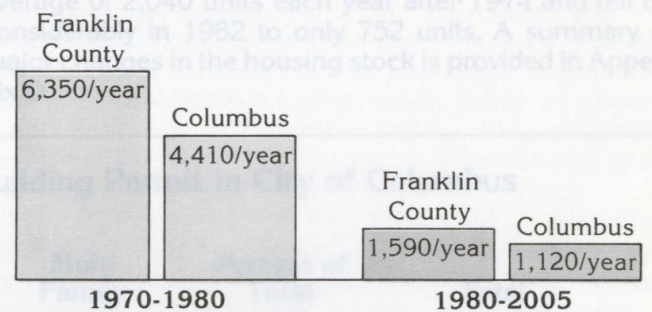
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**Figure 6: Projected Annual Population Growth**



Source: Columbus Development Department and State of Ohio

**Figure 7: Projected Annual Household Growth**



Source: Columbus Development Department

## POPULATION CHANGE IMPLICATIONS

The impact of these projections of population and household growth will likely be to limit the expansion of both the private and public sector economies. Opportunities over the next twenty years will be created by changing demographics and changing tastes and not by an increasing support population.



The lack of strong population growth will also reduce the pressures for new fringe area development. This could have a significant impact on local government since many of the past capital and operating costs incurred by Columbus were associated with providing new facilities and services to growing fringe areas. Any decline in the demand for fringe area living, therefore, gives the City an opportunity to invest in the maintenance and upgrading of its existing urban infrastructure and to improve the quality of other City services. A stable and aging population base could, with reduced income and levels of consumption, also negatively impact revenues for city services and income tax receipts.

While some expansion and development of the urban fringe is likely to continue, the reduced demand brought about by reduced growth will alleviate pressures for large investments in utility system expansion. Columbus can, therefore, give greater attention to maintaining its competitive position and concentrate on holding its existing population by making improvements to central city neighborhoods. Slow rates of growth offer the opportunity to shift the balance of public investment from the urban fringe to parts of the inner city.

## OTHER DEMOGRAPHIC CHANGES

In addition to experiencing the impacts of population stability and less inflated rates of household formation, Columbus and Franklin County will be subjected to further changes in the composition and character of its population. Demographic changes underway in the 1970's will continue into the 1980's and 1990's. The next 10 years will see, as stated, increases in the elderly population, fewer people aged 15 to 24 years old and increases in the proportion of adults aged 25-44 years.

Even with declining rates of household formation, increases in the proportion of people aged 25 to 44 will increase the proportion of new families with children and

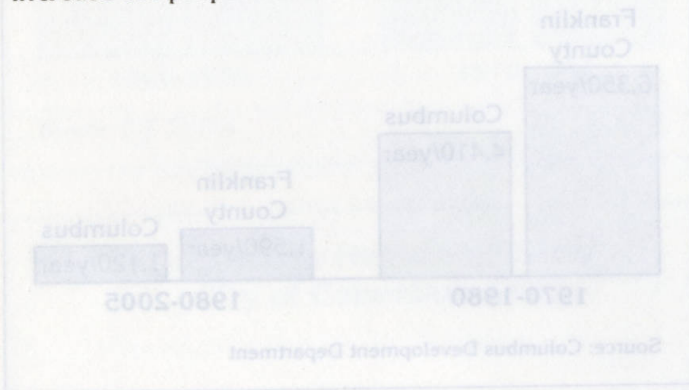
help to maintain the demand for new housing. That housing will, perhaps, contain fewer bedrooms and be more oriented to the lifestyle of better educated, working parents. It is also likely that the demand for outlet store goods, do-it-yourself stores and household goods will continue to expand to serve this generation of new families.

Although fertility rates (a measure of the number of babies born to each woman) will continue to decline, the large number of new families with women in the child-bearing years will probably mean that a large number of babies will be born. This should lead to a resurgence of interest in goods and services for babies and young children over the next 10 years. These will be the children of the children born in the last baby boom, comprising, in their time, a secondary baby boom which will trigger short-run demands in the education system as well as in the retail market.

The declining teenage population will negatively affect those retail operations heavily dependent on teenage employees and trade and local school districts seeking to make efficient use of their existing facilities. Higher education, a major part of our local economy, may be similarly affected unless colleges and universities can increase their attractiveness sufficiently to draw more heavily on the declining pool of eligible students or expand opportunities for non-traditional students.

Further increases in the proportion of elderly will continue to aggravate the need for suitable, affordable housing and add to the demand for goods and services oriented to this age group. The housing problem facing the elderly is likely to be compounded by the fact that many older Americans will be living on low and fixed incomes. A great many of these people will also be homeowners with no outstanding mortgage, a factor which should help to slow change in many older neighborhoods in Columbus. Local studies have shown that the elderly are the least mobile group of inner-city dwellers.<sup>1</sup>

<sup>1</sup>Joan Jones, *The Columbus Displacement Study*, Decision Research Corporation, 1982.



## POPULATION CHANGE IMPLICATIONS

The impact of these projections of population and household growth will likely be to limit the expansion of both the private and public sector economies. Opportunities over the next twenty years will be created by changing demographics and changing tastes and not by an increasing support population.

Along with a decline in the annual rate of population growth, the City and County are expected to experience a dramatic decline in the average annual growth of households. Over the period between 1980 and 2005, Franklin County is forecast to increase by an average of only 1,590 households each year. A similar drop in the average annual household growth for Columbus is expected. Columbus will add an average of 1,120 households each year over the same period (Figure 7). This dramatic drop in average annual household growth is expected because there are practical limits to increases in household formation rates caused by people choosing to live alone. Household and population forecasts for both the City of Columbus and Franklin County to the year 2005 are illustrated in Appendix C.

Given the fact that much of the real growth in households experienced between 1970 and 1980 was due to new household formation within a relatively constant population, it is easy to see that when the rate of household formation returns to a less inflated level that average annual household growth will also drop dramatically. The result of this demographic change could be significant for local retailers and housing contractors who have benefited from past high rates of household formation.



# HOUSING MARKET TRENDS

## PERFORMANCE 1970-1980

Additions to the housing stock in the City of Columbus averaged 5,420 units each year between 1970 and 1980. This was a period of unparalleled housing production for Columbus that was supported by the unusually high rate of new household formation and rising household incomes. In the 1970's 1.2 new housing units were built for every 1 new household added to the City.

The number of owner-occupied units increased by 20 percent, but the number of renter-occupied units increased by 30 percent. By 1980 renter households accounted for 51 percent of all households whereas in 1970 renter households were only 49 percent of the total. This shift in tenure and the general boom in housing occurred during a period when the median value of owner occupied housing rose by 142 percent, median household income rose by 117.6 percent and median rent increased by only 96.6 percent.

In Columbus at least, the cost of owning a home increased faster than the ability of a household to purchase a home. In spite of this, many households made the

decision to spend a greater proportion of their income for housing expenses. Thus, this situation contributed to the demand for homeownership as more householders sought out housing and real estate investments to give them a hedge against inflation.

The housing boom of the 1970's was characterized by high rates of housing production in 1970, '71, '72 and '73 and more moderate rates after 1974 (Table 1). This decline correlates with the decline in population growth experienced after 1974. Single-family production in Columbus remained fairly constant with an average of 1,700 units authorized by building permit each year between 1970 and 1980. The yearly average of single-family units dropped to 1,160 units in the three years after 1979. Major fluctuations in housing construction have, therefore, been characterized by changes in the amount of multi-family construction. Multi-family construction which was unusually high between 1970 and 1974 remained fairly constant at an average of 2,040 units each year after 1974 and fell off considerably in 1982 to only 752 units. A summary of major changes in the housing stock is provided in Appendix D.

**Table 1. Housing Units Authorized by Building Permit in City of Columbus**

Year	Single Family	Percent of Total	Multi Family	Percent of Total	Total
1970	1,797	23.84	5,741	76.16	7,538
1971	2,234	18.51	9,838	81.49	12,072
1972	2,225	22.21	7,794	77.79	10,019
1973	1,307	22.20	4,580	79.80	5,887
1974	798	26.29	2,237	73.71	3,035
1975	1,062	46.17	1,238	53.83	2,300
1976	1,385	45.28	1,674	54.72	3,059
1977	2,287	50.26	2,263	49.74	4,550
1978	2,028	50.36	1,999	49.64	4,027
1979	1,904	43.02	2,522	56.98	4,426
1980	1,377	40.55	2,019	59.45	3,396
1981	950	28.49	2,384	71.51	3,334
1982	1,160	60.67	752	39.33	1,912

Source: City of Columbus Building Permit Records, 1970-1982



# HOUSING MARKET OUTLOOK

While the forces of rapid household formation and inflation helped to maintain the demand for new housing in the 1970's, more recent declines in new construction and higher vacancy rates suggest that the boom has ended. Future forecasts show increases in household formation but these increases will not match those of the 1970's. This is not to say that there will not be a demand for new housing construction, but rather that the demand will not be supported as in the past by unusually high rates of new

household formation. Housing demand will more closely reflect the average 1,590 new households projected to be added to the County each year over the next 25 years. (Figure 7). In addition, changing demographics may influence the type, style and location of housing that consumers prefer. Indications are that smaller, more affluent and better educated households will characterize new homebuyers. This group may be willing to accept non-traditional alternatives ranging from attached, factory produced, small units in the fringe areas to architecturally-interesting housing in older parts of the city.

## HOUSING MARKET TRENDS

While some expansion and development in the urban fringe is likely to continue, the reduced demand brought about by reduced growth will alleviate pressures for large investments in utility system expansion. Columbus can, therefore, give greater attention to maintaining its competitive position and concentrate on holding its existing population by making improvements to central city neighborhoods. Slow rates of growth offer the opportunity to

their time, a secondary baby boom which will trigger short-run demands in the education system as well as in the retail market.

The declining teenage population will negatively affect those retail operations heavily dependent on teenage employees and trade and local school districts seeking to make efficient use of their existing facilities. Higher education

### OTHER DEMOGRAPHIC TRENDS

The housing boom of the 1970's was characterized by high rates of housing production in 1970, '71, '72 and '73 and more moderate rates after 1974 (Table 1). This decline coincides with the decline in population growth experienced after 1974. Single-family production in Columbus remained fairly constant with an average of 1,700 units authorized by building permit each year between 1970 and 1980. The yearly average of single-family units dropped to 1,280 units in the three years after 1979. Major fluctuations in housing construction have, therefore, been characterized by changes in the amount of multi-family construction. Multi-family construction which was unusually high between 1970 and 1974 remained fairly constant at an average of 2,040 units each year after 1974 and fell off considerably in 1982 to only 752 units. A summary of major changes in the housing stock is provided in Appendix D.

Additional to the housing stock in the City of Columbus averaged 2,420 units each year between 1970 and 1980. This was a period of unparallelled housing production for Columbus as was supported by the unusually high rate of new household formation and being household income. In the 1970's 1.2 new housing units were built for every 1 new household added to the City.

The number of owner-occupied units increased by 20 percent but the number of renter-occupied units increased by 30 percent. By 1980 renter households accounted for 31 percent of all households whereas in 1970 renter households were only 19 percent of the total. This shift in tenure and the general boom in housing occurred during a period when the median value of owner-occupied housing rose by 142 percent, median household income rose by 117.6 percent and median rent increased by only 96.6 percent.

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Table 1. Housing Units Authorized by Building Permit in City of Columbus

Year	Single Family	Multi Family	Total
1982	1,180	752	1,932
1981	950	2,384	3,334
1980	1,377	2,019	3,396
1979	1,904	2,222	4,126
1978	2,028	1,999	4,027
1977	2,287	2,263	4,550
1976	1,282	1,674	2,956
1975	1,062	1,238	2,300
1974	798	2,227	3,025
1973	1,307	4,580	5,887
1972	2,222	7,794	10,016
1971	2,234	8,838	11,072
1970	1,797	5,741	7,538

Source: City of Columbus Building Permit Records, 1970-1982



# GEOGRAPHIC PATTERNS OF GROWTH

## INTRODUCTION

The previous discussion outlined trends and prospects for overall growth in the Columbus metropolitan area. Within the overall limits established by these projections there will be a great deal of geographic variation. Although the overall trend is toward a reduced growth rate, there is tremendous diversity among geographic subareas of the region. While future population growth will occur at much lower rates than previously anticipated, changing living patterns and locational preferences of the existing population will result in substantial population shifts within the Columbus region. The discussion that follows examines several different sources of information in an effort to understand the direction and magnitude of those population shifts. Understanding these anticipated changes in the geographic patterns of growth will allow the City to plan ahead. Growth areas can be identified. Annexation requests can be put in perspective. Demand for services and capital improvements can be anticipated. City policies can be adjusted to reflect future trends or to attempt to change those trends.

## INDICATORS OF EXPANSION AND POPULATION MOBILITY

A significant finding contained in the 1980 census, given recent claims of revitalization and displacement, was the accelerated loss of population from the inner-city. The pattern of inner-city decline and population outmigration is a well established trend, common to older, large cities nationwide. Census figures for 1970 provided evidence that Columbus was not an exception to this pattern in the 1960's. Given this history, continued population loss in the inner-city between 1970 and 1980 would not have been surprising. However, during the 1970's the stories of decline were balanced by well publicized examples of resettlement and revitalization. German Village, Victorian Village, Italian Village, Renaissance, Dennison Place and Olde Towne East are local examples of this counterbalancing movement. The existence of these reinvestment areas would have led planners to anticipate a slowdown in the outmigration from the inner-city. Census figures for

1980 report no evidence of a slowdown and, in fact, show an acceleration of the outmigration pattern in the 1970's. Between 1960 and 1970 the inner-city area of Columbus<sup>2</sup> lost 38,589 people. In the 1970's the same area suffered a population loss of 60,577 (Table 2).

The loss of population in the inner-city, when combined with the fact that overall Columbus and Franklin County show continued population growth, highlights the shift in population from core to fringe. Between 1970 and 1980 the City of Columbus added 25,195 people. Since the inner-city area lost 60,577 people during the same period, the fringe areas of the City must have added 85,772 people. In most urban areas the movement is away from the large, land-locked central city to the suburban communities which ring its borders. In Columbus, an open door annexation policy has enabled the City to expand and capture a consistent share of the region's growth.

The shifting of population in the Columbus MSA will likely continue. Awareness of this movement and the reasons behind it become increasingly important given the limited growth forecast for the foreseeable future. The Columbus population is highly mobile. Some 36 percent of all households in Columbus will have moved in the preceding five years.<sup>3</sup> That is, almost 4 households in 10 have lived in a neighborhood for less than 5 years.

Why is the population so mobile? Almost 12 percent of those who move to or within the Columbus area move to become homeowners, but a majority, 58 percent, move to improve the quality of their housing and neighborhood environment. The strength of housing and neighborhood improvement as a motivation for mobility can be seen in the fact that 31% of the people with other first reasons for moving also cited housing and neighborhood improvement as a secondary reason.

Within Franklin County, population growth and movement into the fringe has not been uniform. Between 1970 and 1980 while the inner-city continued to lose population, the largest gains were recorded in four geographically defined sections of the fringe. The largest additions took place in the Northeast and Northwest quadrants of the County. Map 1 highlights these four areas and the population gains in each.

In addition to the dispersion of population within Franklin County, the 1980 census showed for the first time

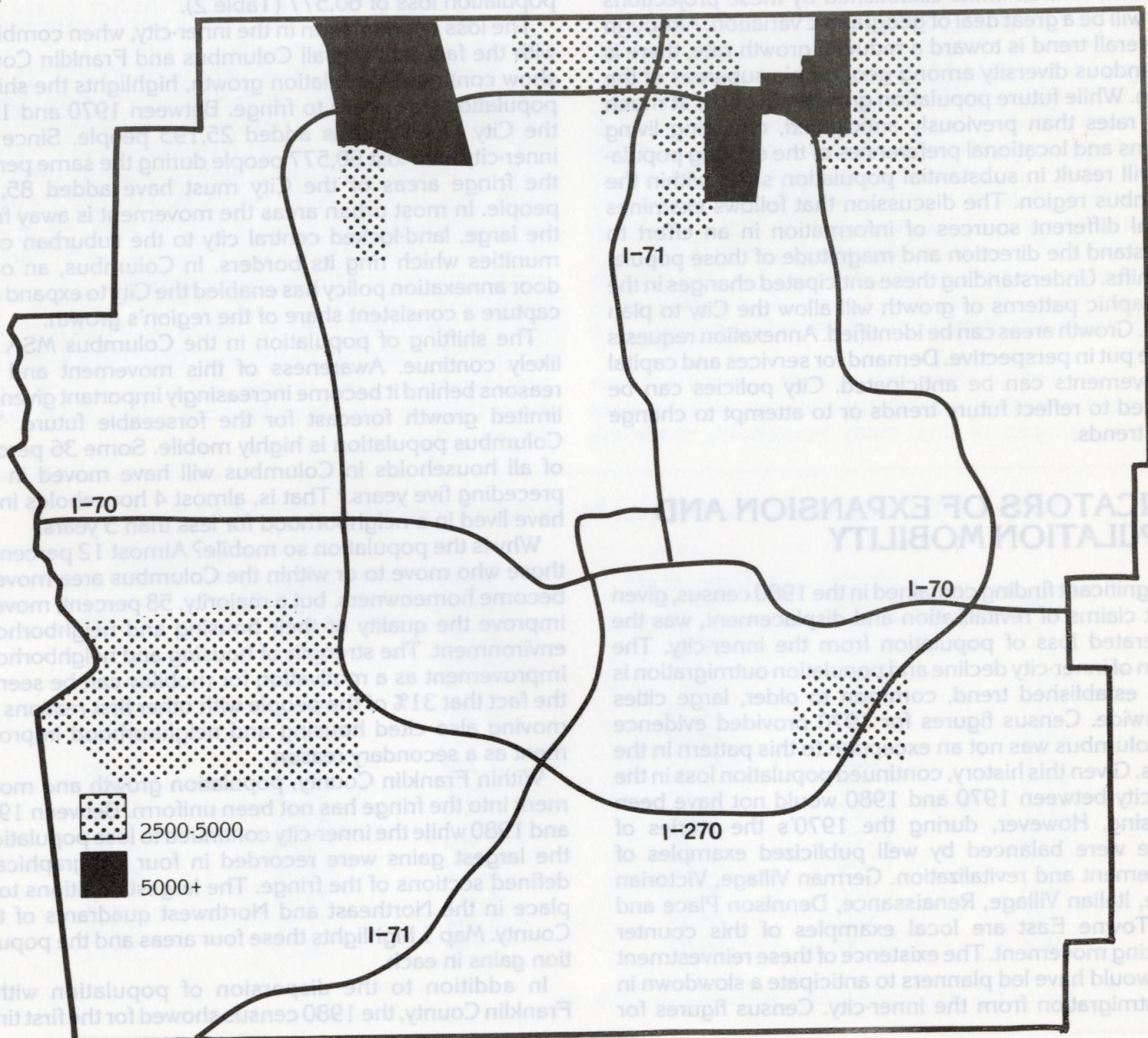


**Table 2. Population Changes, City of Columbus, 1950-1980**

	Older City Area			City of Columbus		
	Total	White	Black	Total	White	Black
1950 Population	375,901	328,770	46,692	375,901	328,770	46,692
1960 Population	385,437	313,217	71,233	471,316	394,176	77,140
Change 1950-60	9,536	-15,553	24,541	95,415	65,406	30,009
Percent Change	2.5	-4.7	52.5	25.4	19.9	63.7
1970 Population	346,848	260,963	84,509	539,677	440,050	99,627
Change 1960-70	-38,589	-52,254	13,276	68,361	45,874	22,487
Percent Change	-10.0	-16.7	18.6	14.5	11.6	29.2
1980 Population	286,271	203,371	78,656	564,872	439,992	124,880
Change 1970-80	-60,577	-57,592	-5,863	25,195	-58	25,253
Percent Change	-17.5	-22.1	-6.9	4.7	.01	25.3

Source: U.S. Census and Department of Development estimates

**Map 1: Areas of High Population Growth in Franklin County 1970-1980**





that adjacent counties were capturing a significant share of regional growth. Much of this rural growth would appear to be associated with the economic growth of Columbus and as such is further evidence of a slowly growing population expanding over a broader geographical area. Between 1950-1960, Franklin County accounted for 78% of the population growth in the seven county area which includes all of the adjacent counties. Between 1960-1970, Franklin County again captured 78% of this area's population growth. In the decade of the seventies however, Franklin County's share of regional population growth slipped to 38%. While population growth rates in surrounding counties remained stable or increased, the population growth rate of Franklin County declined dramatically. Compared to the high growth 50's and 60's, population increases in the six counties adjacent to Franklin County are insignificant. However, when analyzed in the low growth environment of the 70's the numbers in these surrounding counties are substantial (Table 3).

Particularly important to the City of Columbus is the fact that growth in several of these counties would appear to be associated with Columbus. In Delaware, Fairfield and Madison Counties, significant portions of this 1970-1980 population growth are concentrated in townships bordering Franklin County. The five townships in Delaware County adjacent to Franklin County accounted for 38% of that County's growth in the last decade. The two townships in Fairfield County adjacent to Franklin County accounted for 61% of that County's population growth. In Madison County the four similarly situated townships supported 56.5% of the total County population growth. While Columbus and the balance of Franklin County grew by 35,883 people between 1970-1980, these 11 townships added 17,186 new residents.

Within Franklin County, City water and sewer extension policies have effectively guided urban development into incorporated areas. This recent pattern of residential development leaping into adjacent counties establishes subdivisions beyond the practical limits of Columbus service.

As has been previously discussed, growth in the Central Ohio area in the foreseeable future is expected to occur at very low rates. It would seem logical that the recent population increases in townships outside of Franklin County have not been indicative of a resurgence in

regional population growth, but rather a redistribution or spreading out of the region's limited population growth. Thus, if the regional totals are not above expectations then growth in these rural township areas is being substituted for projected growth in other areas of the region. In this case it would appear that the growth now occurring in these townships could have been projected to occur in Franklin County.

Two potential implications of this population shift are suggested. First, City utility extensions into developing portions of Franklin County are sized to accommodate the ultimate residential capacity of service areas. This spreading of new development beyond City service boundaries in an era of overall low growth will result in an underutilization of service capacity in fringe areas. In the short-term, revenue to the City in the form of water and sewer charges will be reduced.

When this pattern is combined with the outmigration from the older portions of Columbus and the lower use of available capacities in that area as well, a problem of efficiently using overall system capacities may exist. The population is spreading out in a lower density pattern and the service system is expanding to accommodate anticipated development. Future maintenance costs will rise and holding down the per capita costs will likely be very difficult given the lack of overall population and household growth.

A second implication of growth outside the Columbus service area is the potential for problems associated with a lack of coordinated planning for service provision. If one or more of these rural development areas continues to attract new residents to a point at which the scale or density of development takes on an urban character, the costs of providing needed central services after the fact will be extreme. The current policy of the City of Columbus to provide sewer and water service only to incorporated or special contract areas addresses this issue within Franklin County.

## SUBDIVISION ACTIVITY

An additional source of information regarding the distribution of growth is the record of subdivision activity in Franklin County. Monitoring the volume of activity and the

**Table 3. Population Growth and Percentage of Total Regional Growth by Decade**

County	Population Change 1950-1960	Percent of Regional Total 1950-1960	Population Change 1960-1970	Percent of Regional Total 1960-1970	Population Change 1970-1980	Percent of Regional Total 1970-1980
Delaware	5,829	2.5	6,801	3.6	10,932	11.6
Fairfield	11,821	5.1	9,350	4.9	20,377	21.6
Franklin	179,513	78.2	150,326	78.7	35,883	38.0
Licking	19,597	8.5	17,557	9.2	13,182	14.0
Madison	4,154	1.8	1,864	1.0	4,686	5.0
Pickaway	6,503	2.8	4,216	2.2	3,591	3.8
Union	2,166	1.0	933	0.5	5,750	6.1
<b>Regional Totals</b>	<b>229,583</b>	<b>99.9%</b>	<b>191,047</b>	<b>100.1%</b>	<b>94,401</b>	<b>100.1%</b>

Source: U.S. Census



number and location of new single-family residential lots provides an understanding of the rate and direction of growth. While census data is much more detailed, subdivision records are not limited to 10 year reporting intervals and can be monitored on an annual basis or even more frequently. In light of this advantage, the key time period to examine is that since the 1980 census.

Between 1980 and 1982, 68% of all single-family lots platted in Franklin County were located in Columbus. This compares to 60% during the 1970's. Columbus has continued to retain a consistent and dominant share of the new housing developed in Franklin County (Figure 8).

An explanation for the modest rise in the portion of subdivision lots platted in Columbus in the 80's may be found in the receptivity of Columbus to experiments with more affordable platting alternatives. The total number of lots platted in the County has dropped continuously since two higher volume years in 1978 and 1979. Only 761 total lots were platted in all of Franklin County in 1982. The past two years, 1981 and 1982, mark the first time in the entire study period (1970-1982) that new lot totals in Franklin County dropped below 2000 in any year. It is generally felt that this lull in housing construction is primarily attributable to the high cost of new housing and high interest rates, and secondarily to recent declines in the rate of household formation. If non-affordability is a general cause

of the construction downturn then the increase in Columbus' share of the remaining market can be partially explained by Columbus' positive attitude towards housing alternatives.

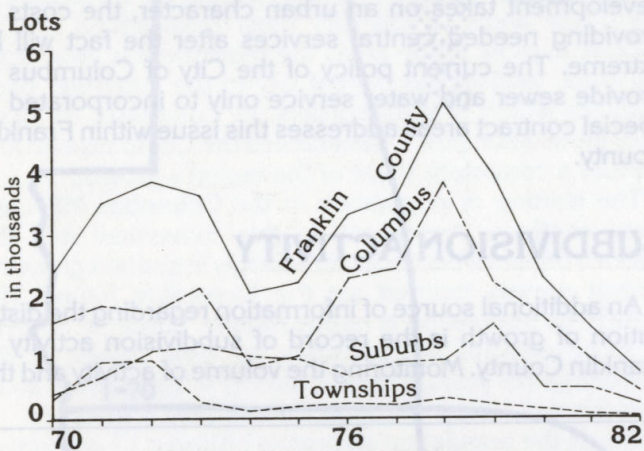
Generally new housing in Columbus is less expensive than new suburban construction. Verification of the differences in affordability between Columbus and non-Columbus areas of the County can be found in lot sizes and changing housing styles. In an effort to address the affordability issue, many of the new lots created in Columbus in the last three years have been reduced in size and common wall or townhouse construction styles have been employed. Little evidence of these modifications exists in non-Columbus areas (Table 4).

Platting and subdivision activity in the counties adjacent to Franklin County has had little impact on the City's share of new subdivision lots. It is fair to assume that a large number of new lots in surrounding counties went to homebuyers who, had they remained in Franklin County, would have purchased lots outside of the City of Columbus.

Evidence from the first six months of 1983 would indicate that the slow period for new housing development may be ending for Columbus and Franklin County. Interest rates have moderated slightly and platting totals to date already equal totals from 1982. It should be noted that although future platting activity will exceed recent low levels, it is unlikely that it will return to the volumes experienced in the 1970's.

In addition to a resurgence in total platting activity, two other interesting trends are present in the 1983 plats. Of the 765 new lots created in the first half of 1983, 89.3% of them are located in Columbus. Also, as the cost of purchasing new housing has become more reasonable there has been a trend toward returning to traditional single-family lots and housing styles rather than continuing the trend toward common-wall, narrow-lot alternatives.

**Figure 8: Subdivision Lots: Franklin County 1970 - 1982**



Source: Columbus Development Department

## SUBDIVISION LOCATIONS

The previous discussion highlighted the continued and seemingly increasing dominance of Columbus in terms of its percentage of newly platted subdivision lots. Additional questions which need to be answered concern the geographical distribution of these subdivisions within Columbus and suburban areas.

As was discussed, suburban Franklin County platting activity in the 1980's has been minimal and fairly evenly distributed. Dublin, Gahanna, Grove City, Westerville, Worthington, Reynoldsburg and the unincorporated town-

**Table 4. The Use of Narrow Lots In Franklin County 1980-1982**

Year	Columbus		Suburbs And Unincorporated Areas	
	Number Of Plats	Plats With Lots Less Than 40' Wide	Number Of Plats	Plats With Lots Less Than 40' Wide
1980	31	9	20	0
1981	23	9	16	4
1982	15	8	14	0
<b>Totals</b>	<b>69</b>	<b>26</b>	<b>50</b>	<b>4</b>

Source: Columbus Development Department

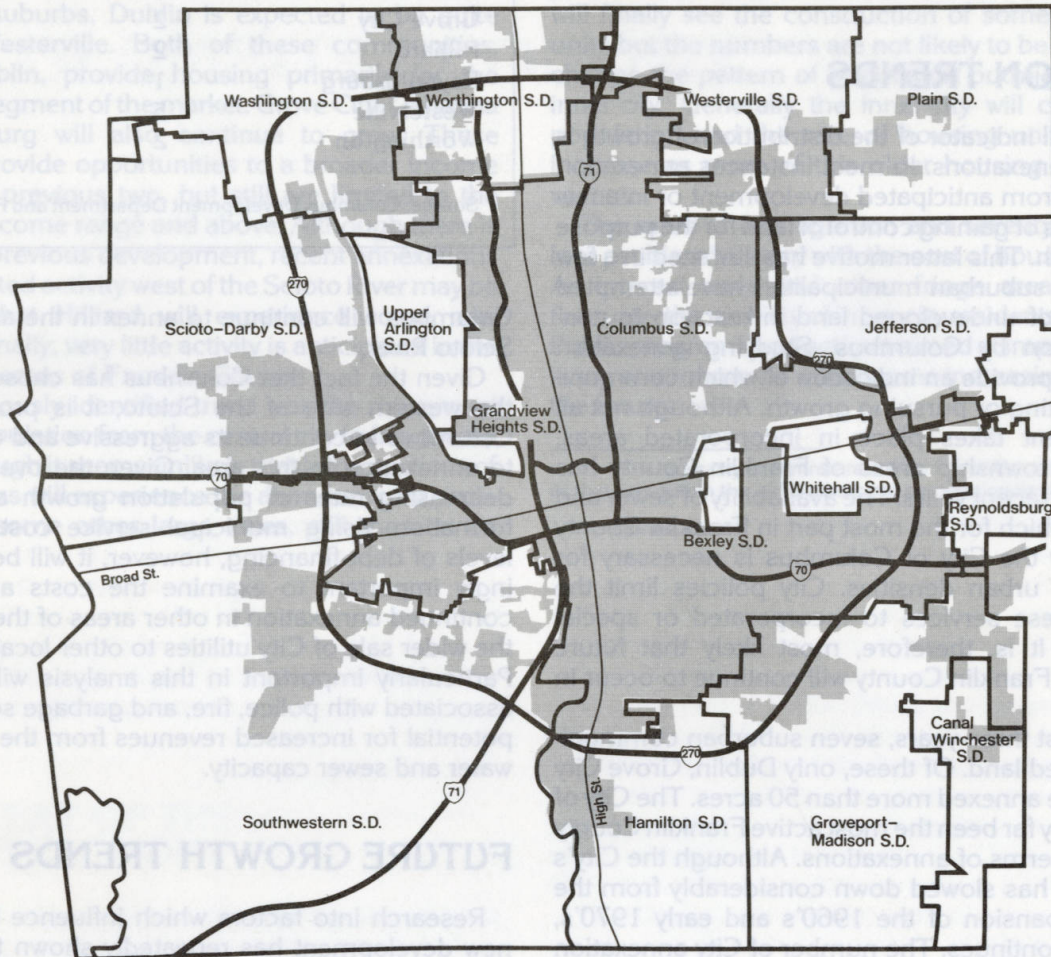


ship areas as a whole have each seen a total of between 100-300 new lots created in the last three years. Of these communities, Westerville had the greatest activity, 10 plats and 316 new lots. This compares to Columbus totals of 69 plats and 3,111 lots for the same three year period.

Where in Columbus has this activity taken place? The most accurate answer is north and in suburban school

districts. Throughout the 1970's and continuing into the 1980's, new housing construction in Franklin County has occurred in suburban school districts (Map 2). Prior to 1975 the City school district accounted for approximately 20% of the platted lots in any year. Since 1975 new construction in the Columbus school district has been reduced to the point of insignificance (Table 5).

**Map 2: Franklin County School Districts and Columbus Corporate Boundaries**



**Table 5. Franklin County Subdivision Plats by School District 1970-1982**

Year	Columbus School District			Suburban School Districts		
	Number Of Plats	Number Of Lots	Percent Of Total Lots	Number Of Plats	Number Of Lots	Percent Of Total Lots
1970	20	1282	53	39	1134	47
1971	18	800	21	48	3014	79
1972	16	913	22	47	3167	78
1973	11	743	20	52	2958	80
1974	4	207	9	36	1855	82
1975	1	172	8	39	2063	92
1976	11	230	7	63	3088	93
1977	13	443	12	63	3225	88
1978	9	280	5	110	4876	95
1979	8	168	4	92	3845	96
1980	2	12	0.5	49	2266	99.5
1981	2	28	2	37	1523	98
1982	2	85	11	27	675	89

Source: Columbus Development Department



The influence associated with a northern Columbus location is not as dominant as the school district factor. It is, however, an obvious locational preference. In the last three years, 1980-1982, 75% of all lots platted in Columbus and 51% of the lots platted in Franklin County were located in the City of Columbus in the two northern quadrants. When the suburban and township platting totals are added to the City figures, the northeast and northwest quadrants account for 70% of all the lots platted in the last three years (Table 6).

## ANNEXATION TRENDS

Another useful indicator of the distribution of growth is the record of annexations. In most instances annexation requests result from anticipated development or in a few cases as a means of gaining control of land for the purpose of limiting growth. This latter motive has surfaced in a few instances where suburban municipalities have attempted to gain control of undeveloped land in reaction to continuing expansion by Columbus. Studying annexation patterns should provide an indication of which communities are anticipating or pursuing growth. Although not all new development takes place in incorporated areas, construction in township areas of Franklin County has been minimal in recent years. The availability of sewer and water services which for the most part in Franklin County are provided by the City of Columbus is necessary for development at urban densities. City policies limit the extension of these services to incorporated or special contract areas. It is, therefore, most likely that future development in Franklin County will continue to occur in these areas.

Within the past three years, seven suburban communities have annexed land. Of these, only Dublin, Grove City and Hilliard have annexed more than 50 acres. The City of Columbus has by far been the most active Franklin County municipality in terms of annexations. Although the City's annexation rate has slowed down considerably from the tremendous expansion of the 1960's and early 1970's, expansion still continues. The number of City annexation requests has changed very little, rather it is the smaller size of recent annexation requests which has reduced the City's overall rate of expansion (Table 7).

The land annexed by Grove City has been to the south away from Columbus. Land annexed by Dublin and Hilliard is generally south and east of those communities in areas likely to experience growth pressures. Dublin, Hilliard and

**Table 7. Franklin County Annexations 1980-1982**

Municipality	Annexation Cases	Annexation Acreage
Columbus	64	2167.680
Dublin	6	540.563
Gahanna	6	32.410
Grove City	2	662.420
Hilliard	2	605.220
Reynoldsburg	1	5.500
Westerville	5	43.470
Worthington	2	10.722

Source: Columbus Development Department and Franklin County

Columbus will continue to annex in the area west of the Scioto River.

Given the fact that Columbus has chosen to annex on the western side of the Scioto, it is probably wise for Columbus to continue its aggressive and open approach to annexation in this area. Given the overall forecast of decreasing rates of population growth and household formation, rising municipal service costs and existing levels of debt financing, however, it will become increasingly important to examine the costs and benefits of continued annexation in other areas of the region versus the wider sale of City utilities to other local governments. Particularly important in this analysis will be the costs associated with police, fire, and garbage services and the potential for increased revenues from the sale of excess water and sewer capacity.

## FUTURE GROWTH TRENDS

Research into factors which influence the location of new development has repeatedly shown that one of the best indicators of development potential is previous development trends. This indicator would seem particularly applicable during the current low growth environment in Central Ohio. As has been previously discussed, recent growth trends in Franklin County have favored northern locations, in suburban school districts. These trends seem likely to continue.

**Table 6. Franklin County Subdivision Activity by Quadrant 1980-1982**

Quadrant	Columbus			Suburbs And Unincorporated Areas			County Totals		
	Number Of Plats	Number Of Lots	Percent Of Total Lots	Number Of Plats	Number Of Lots	Percent Of Total Lots	Number Of Plats	Number Of Lots	Percent Of Total Lots
Northwest	31	1351	29.4	16	319	6.9	47	1670	36.4
Northeast	25	978	21.3	19	580	12.6	44	1558	33.9
Southeast	9	525	11.4	5	170	3.7	14	695	15.1
Southwest	4	257	5.6	10	412	9.0	14	669	14.6
<b>Totals</b>	<b>69</b>	<b>3111</b>	<b>67.7</b>	<b>50</b>	<b>1481</b>	<b>32.2</b>	<b>119</b>	<b>4592</b>	<b>100.0</b>

Source: Columbus Development Department



Fringe area growth within the City will continue to fill up the northwest parts of the City. Rapid development will continue in areas along Bethel Road, Sawmill Road and north of the outerbelt between the Olentangy and Scioto Rivers. Development will also continue north of I-270 in the Rt. 23 and Park Road areas, and in the northeast part of the City near Little Turtle. An area of new activity which is expected to be quite active is west of the Scioto River in the Hayden Run Road vicinity. Very little activity is anticipated in the southern part of Columbus.

Among the suburbs, Dublin is expected to be quite active as is Westerville. Both of these communities, particularly Dublin, provide housing primarily for the upper-income segment of the market. Grove City, Gahanna and Reynoldsburg will also continue to grow. These communities provide opportunities to a broader income range than the previous two, but still are limited to the upper middle income range and above. Although there is no evidence of previous development, recent annexations and the anticipated activity west of the Scioto River may be an indication that Hilliard will experience some new construction. Finally, very little activity is anticipated in the unincorporated areas of Franklin County.

Another previously identified trend was the movement or shifting of population from the central city to fringe area locations. Although it seems unlikely that large portions of central Columbus will experience the abandonment problems found in some other large cities, still there is no

evidence to suggest that the documented outmigration from the central city will cease in the near future. Those households whose income or circumstances provide a choice of residential locations are generally still leaving the inner-city. The few well-publicized examples of neighborhood revitalization will continue to attract small numbers of higher income households back to the inner-city, however, there have been no examples of additional areas of gentrification within the last several years. There is a possibility that the downtown or Central Business District will finally see the construction of some new residential units but the numbers are not likely to be significant or to change the pattern of population outmigration from the inner-city. Generally the inner-city will continue to lose population and the rate of housing unit loss will likely increase as more of this older housing stock becomes vacant.

The rates of outmigration and severity of the housing loss problem will vary with the cost of housing alternatives. As interest rates and other fringe area housing costs fluctuate, the mobility of inner-city residents will be affected. Public programs and actions aimed at improving inner-city living environments will become increasingly important in the future.

<sup>2</sup>The inner-city or central area of the City of Columbus has been defined as that area within the 1950 municipal corporation limits.

<sup>3</sup>Jones, op. cit. The more important since this sector's previous growth had shielded the local economy against the severity of earlier recessions in which manufacturing suffered the largest layoffs. Finally, population growth encourages economic activity and, even though Columbus is the only northeastern city to maintain population growth during the period 1960-1980, it is anticipated that population growth will be much slower in the future.

Within the context of the State economy, Columbus has been able to maintain a positive growth record. One indication of this vitality can be seen in the City's performance, as compared to other major Ohio cities, in the The Ohio Metro Business Activity Indices (OMBAI).

The OMBAI are a composite of six individual indices which are compiled for each of Ohio's eight largest metropolitan areas. Each index is designed to reflect the overall performance of six individual time series at the metropolitan level. These series are:

1. Outstanding Commercial and Industrial Loans
2. Total Nonagricultural Wage and Salary Employment
3. Total Covered Payroll of the Central County
4. Value of New Private Housing Authorized by Building Permits
5. Total Unemployment, and
6. Retail Sales of the Central County

These indices represent the major economic processes of employment, unemployment, money and credit, fixed capital investment, consumption, trade, orders and deliveries, and product and income as defined by the U.S. Department of Commerce. The OMBAI provide a tool for gauging economic strength within many Ohio regions by providing a timely measure of the gross amount of business activity within a metropolitan area relative to its performance during the base year of 1977. The OMBAI are a regular feature of the Ohio Economic Indicators Quarterly, which is published by the Ohio Data Users Center of the Ohio Department of Development. These indices for the eight major metropolitan areas of Ohio can be examined in Appendix F.

## THE CONTEXT OF THE COLUMBUS ECONOMY

Over the past ten years, major cities in the midwest have been undergoing a structural change from manufacturing-based economies to increasingly service-based economies. The economic problems associated with these structural changes have been accentuated by the recent recession. The structure of the Columbus economy has enabled it to withstand this recession more effectively than most cities in the region. That structural mix includes the regional or national headquarters for over fifty insurance companies, major technical research centers, and major warehouses and distribution centers.

Columbus consistently has had more unemployment than the State. Columbus economic growth has been well balanced among service industries and light manufacturing. Columbus's largest employers are government, higher education, science and research, financial services and regional distribution centers. There have been growth sectors within the economy, relatively immune from business cycle fluctuations.

The view of the Columbus economy as an oasis of prosperity in the depressed northeast region of the United States has been challenged by national and international economic patterns, by some softening in one of our strongest growth areas in previous years, and by the slowing of population growth. National and international trends have always had an impact on the Columbus



# THE COLUMBUS ECONOMY

## INTRODUCTION

In Columbus, as in any city, the growth of the local economy supports the overall growth of the community. The vitality of the economy, both locally and nationally, for example, is a major determinant of the strength of the housing market, while population patterns discussed in the first section have a long-term effect on economic growth patterns. This analysis examines the Columbus economy in four areas: 1) The Context of the Columbus Economy; 2) The Performance of the Columbus Economy; 3) Areas of Promise and Concern in High Technology; and 4) Prospects for Future Economic Growth.

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economy. The long-term economic growth patterns of basic industry in third world countries, for example, have taken their inevitable toll on the manufacturing sector of the City's economy. In addition, the current decline in government employment, which includes not only City, State and Federal employment, but also the Ohio State University, is all the more important since this sector's previous growth had shielded the local economy against the severity of earlier recessions in which manufacturing suffered the largest layoffs. Finally, population growth encourages economic activity and, even though Columbus is the only northeastern city to maintain population growth during the period 1960-1980, it is anticipated that population growth will be much slower in the future.

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Over the past six years, Columbus has demonstrated both a greater resistance to recession, and a quicker recovery from the effects of recession, than any other city in Ohio. As illustrated in Appendix F, this performance is due to a higher level of economic activity and the presence of sectors in the Columbus economy that are still growing. For other Ohio cities, the recession served to accentuate the long-term downward trend in manufacturing activity, a trend that has had less of an impact on the basic resiliency of the Columbus economy. This effect can also be seen in the comparative performance of the local, state and national unemployment rates.

The Columbus economy traditionally has been able to provide a comparatively high level of employment and prosperity for its citizens throughout the fluctuations of the business cycle, underwriting the claim that the diversity of this economy provided some insurance against severe recession (Table 8). This claim was put to the test in 1981, when the Columbus Metropolitan Statistical Area (MSA) unemployment rate rose .1% above the national average, but that rate fell well below the national average in 1982. In recent history, that is the only exception to the general rule that the Columbus rate has always been below the state and national annual averages.

## THE PERFORMANCE OF THE COLUMBUS ECONOMY

The reason that Columbus has been able to maintain this strong performance during national economic cycles and regional decline can be found in three important sectors of the Columbus economy—wholesale and retail trade; services; and the area of finance, insurance and real estate. These three sectors had growth rates above 40% in the period 1972-1982, and although wholesale trade experienced an employment decline of 0.4% in the 1980-1982 recession, retail trade managed a 0.2% increase while the services and the financial/real estate/insurance sectors both maintained strong growth rates during that period, with employment increases of 4.5% and 9.0%, respectively. These high growth rates are especially sig-

nificant since the wholesale/retail trade and services sectors are now the largest employment sectors in the Columbus regional economy. Tables 9 and 10 summarize the employment performance by sector of both Ohio and Columbus.

While retail trade accounts for three times the employment of wholesale trade, each maintained the same employment growth rate of approximately 44% over the last ten years. During the 1980-82 period, while the state suffered a loss of over 19,000 jobs in this sector, Columbus maintained a steady average of approximately 120,000 jobs. The strength of wholesale trade is due to the location of Columbus relative to population centers of the nation, coupled with a very good transportation network. In addition, reasonable rental cost of warehousing space, favorable property tax rates, and good municipal services combine to make Columbus a natural setting for distribution centers. The concentration of warehousing facilities is obvious in a tour of the Outerbelt, including not only smaller distribution operations, but also such major centers as Sears, the Limited Stores, J.C. Penney, and Anheuser-Busch. Although the market for warehouse distribution softened with the high interest rates of recent years, the current economic recovery should spur increased construction and utilization of such facilities.

The second strong point of the Columbus economy is the services sector, which is by a significant margin the fastest growing major sector of the Columbus economy. Over the past ten years, employment in this sector has increased by 55.8%. During the 1980-82 period, this sector added 4,700 jobs for a total of about 110,000 in the Columbus MSA. The growth in the services sector can be attributed to national trends favoring increases in the service sector and the comparative economic health of the region. Growth in convention and hotel activity also reflects a stimulus to the service sector.

The finance, insurance and real estate sector, the third growth area, realized an increase of 45.3% in terms of employment during the period 1971-1981 and, during the 1980-82 period, managed to increase its employment by 3,400 jobs, for a total employment of 41,200. Columbus has become an important financial and insurance services center, although the finance, insurance and real estate sector currently comprises only 8.2% of total non-agricultural employment in the Columbus MSA. Many corporate headquarters and major branch offices have been established in Columbus, providing an additional element of strength to the Columbus economy.

Although the government sector of the economy had been a traditional source of strength, as well as a buffer against recession, this phenomenon appears to be at an end. For the first time since the 1940's, there was a decline in the national level of government sector employment from October 1980 to 1981. During the period 1980-82, Columbus public employment fell by 3,900 jobs. This 3.7% drop is all the more significant, since it marks the end of a ten-year period of steady growth. Given national policies and continued stress on state and local budgets, it seems unlikely that the government sector will be able to create any significant growth in employment in the foreseeable future.

Manufacturing activity in the Columbus area continued to be the most severely affected sector of the Columbus economy, both by long-term trends and by the 1980-1982 recession. During the latter period, employment fell by 10.4% or 10,100 jobs. In the long term, manufacturing

**Table 8. Average Annual Rate of Unemployment**

Year	Cols. SMSA*	Ohio	U.S.
1975	7.4	9.1	8.5
1976	7.0	7.8	7.7
1977	5.9	6.5	7.0
1978	4.7	5.4	6.0
1979	4.8	5.9	5.8
1980	5.7	8.4	7.1
1981	7.7	9.6	7.6
1982	8.9	12.5	9.7

\* Includes Delaware, Fairfield, Franklin, Madison and Pickaway Counties. In 1983, Licking and Union Counties were added to the SMSA.

Source: "Ohio Labor Force Estimates by County," Ohio Bureau of Employment Services.



**Table 9. Selected Ohio Employment Sectors 1980-82**

(Average annual employment in 000's)

	1980	1981	1982	% Change 1980-82
Manufacturing	1,264.3	1,232.6	1,103.6	-12.7
Non-manufacturing				
Wholesale Trade	230.6	232.5	229.3	-0.6
Retail Trade	726.6	717.7	707.3	-2.7
Finance/Real Estate/Ins.	203.8	205.8	206.4	1.3
Services	830.9	851.5	859.7	3.5
Government*				
Federal	93.3	89.8	88.8	-4.8
State	141.8	140.7	139.7	-1.5
Local	454.8	445.5	430.1	-5.4
Other	421.2	401.6	373.8	-11.3
Subtotal	3,103.0	3,085.1	3,035.1	-2.2
<b>Grand Total</b>	<b>4,367.3</b>	<b>4,317.7</b>	<b>4,138.7</b>	<b>-5.2</b>

\*Including educational system employees

Source: Ohio Bureau of Employment Services

**Table 10. Selected Columbus SMSA Employment Sectors 1980-82**

(Average annual employment in 000's)

	1980	1981	1982	% Change 1980-82
Manufacturing	96.8	93.1	86.7	-10.4
Non-manufacturing				
Wholesale Trade	27.2	27.2	27.1	-0.4
Retail Trade	93.0	92.8	93.2	0.2
Finance/Real Estate/Ins.	37.8	39.5	41.2	9.0
Services	105.1	107.8	109.8	4.5
Government*				
Federal	11.8	11.6	11.5	-2.5
State	48.9	48.6	47.9	-2.0
Local	44.4	43.3	41.8	-5.6
Other	44.3	41.9	38.2	-14.0
Subtotal	413.5	412.7	410.7	-0.7
<b>Grand Total</b>	<b>510.3</b>	<b>505.6</b>	<b>497.4</b>	<b>-2.4</b>

\*Including educational system employees.

Source: Ohio Bureau of Employment Services

provided 25.4% of all non-agricultural jobs in Columbus in 1970, but only 17.4% of those jobs in 1982. The immediate difficulties facing this sector are easing with the current economic recovery, but even that recovery is sluggish.

As of May, 1983, the Department of Housing and Urban Development reported that utilization of industrial capacity had risen to 70%, but that within the steel industry the figure was only 50%. Although one of the strengths of the Columbus economy lies in its diversity, the manufacturing

sector cannot be ignored. In spite of the short- and long-term declines, the manufacturing sector provides the Columbus MSA with 86,700 jobs and still has an enormous impact on the health of the local economy. Although the continuing expansion of manufacturing at Rockwell, due to the B-1 bomber contract, will provide a significant number of new jobs, the manufacturing structure in the area will have to undergo a significant restructuring for long-term survival.



## AREAS OF PROMISE AND CONCERN IN HIGH TECHNOLOGY

Much has been written about the potential of high technology<sup>4</sup> to generate new jobs to replace the losses in employment which have been occurring over the previous decade. What had been purported to be a solution to the employment problem is now seen as less and less the opportunity it appeared. As the profile of the new manufacturing technology's workforce becomes increasingly detailed, it appears to benefit primarily an elite group of educated specialists and secondarily, the workers assembling the machines. Absent from the profile are middle-level employees or technicians. This stratified job structure begins to explain the differences between original expectations and the emerging reality of high technology's effect on the labor force.

The promise of high technology has been its application to the manufacturing sector such that the resulting resurgence would restore lost employment. The reality has been quite different. Within the microelectronics industry, the workforce is stratified between computer scientists and engineers at the high end of the pay range and computer assemblers at the low end. In the middle are few technicians. Moreover, because productivity rates are increasing so rapidly, this is not expected to be a significant source of future employment. A second middle level, that of test technicians to ensure quality control in electronics, is being phased out. Testing is now part of the production process rather than a separate function. A third example involves computer repair technicians. In addition to newer minicomputers possessing self-diagnostic capabilities, what had been done using circuit boards is performed by microchips. And rather than repairing a chip, it is cheaper and easier to replace it.

While the premise of low-tech jobs in the growing high-tech industries may create stratification in American industry, it also creates a vulnerability in that industry shared by the full range of American manufacturing. Once simple skill levels are developed to assemble high-tech components, competition from overseas can destroy sizable employment gains generated by these new industries. For example, early this year the Atari Company announced that it was transferring the manufacture of some components to the Far East, to take advantage of lower labor costs. As a result, 1,600 low-tech jobs were lost in California's Silicon Valley. This does not deny the virtues of attracting high technology industry. Rather, it indicates that this industry is also heir to the effects of the global economy, and does not promise a panacea for the unemployment problem.

There is no doubt that the largest loss of jobs is occurring among unskilled labor. The importance of having a trained workforce as well as an educational system that can produce trained people, becomes increasingly critical to a locality wishing to attract new manufacturing firms. The Columbus area would appear to have an appropriate educational system in place beginning with The Ohio State University, including the other area universities, colleges and two-year technical colleges. Recently, IBM donated \$2 million of state-of-the-art computer aided design/computer aided manufacturing (CAD/CAM) equipment to the OSU College of Engineering, complementing an earlier award of \$1.5 million. The equipment will be used to upgrade graduate education in mechanical, industrial, civil, welding and electrical

engineering. The greater Columbus area has also benefited from the awareness by the public school systems of the import of computer literacy to students and the economy. The Columbus system and at least one suburban system are aggressively increasing their capability in computer education.

## PROSPECTS FOR FUTURE ECONOMIC GROWTH

That information processing/data transmission will become a much more important part of the local economy has, for sometime, not been a matter of speculation; what is speculative is its eventual place within the economy and effects upon employment. It would appear, however, that the sum of the benefits predicted through technological advances are making themselves felt in the greater Columbus area. A variety of organizations, both profit and non-profit, have applied high-technology to information processing/data transmission techniques, among them Bank One, OCLC, Battelle, Huntington Bank, and Warner-Amex QUBE.

Within the financial services category, the Columbus area has achieved somewhat of a reputation in electronic banking. The Huntington National Bank recently launched its BancShare program, enabling both residential and business users to transfer funds, pay bills, check account balances and obtain various investment data. Additionally, this service is linked into the national CompuServe network, which accesses an electronic mail system, electronic catalog service, reference materials, as well as the network's national securities data source. BankOne of Columbus, however, was the first institution locally to test interactive home banking services in later 1980. It was the result of this test, establishing customer preference for the various types of services offered which could set a framework for the bank's interactive system of the future.

Based on "Columbus Metropolitan Area Occupation Projections to 1985," prepared by the Ohio Bureau of Employment Services for the Columbus MSA, the expectations of future jobs can be illustrated. Although financial services does not appear as a distinct category, projections relating directly to providing these services are available. Of the occupations listed, including technicians, computer personnel, and financial managers, all are projected to increase in the 1974-85 period. As a group, the six occupations should grow by 41.4%, from 7,305 to 10,328 positions. At first glance, the projections appear to hold a promising future for the local economy. However, it should be kept in mind that the projections, done in 1977, were based on technological capability in operation then. A sudden, or several incremental advances in technology would render these estimates unreliable.

The increasing importance of new technologies to the Columbus economy cannot be ignored, and the technological base present in Columbus seems well-suited to adapt to future growth in this sector. These technologies will affect business practice and productivity in all sectors of the Columbus economy. The future of the area's economy depends, however, on being able to provide both sufficient capital and a trained labor force to take advantage of the opportunities available, not only in new technologies, but also in established growth areas. The difficulty is that those who would benefit most from capital infusions or retraining are often least able to obtain them.



It has been estimated that 80% of all new jobs are generated by small businesses, but, as noted by The 1982 Annual Report on Small Business and Competition, small businesses are frequently "crowded out" of the capital markets by the demands of larger, well-established firms. This phenomenon becomes even more critical when the business requires venture capital for a new high technology venture, when both the lack of established credit and questions on the technical feasibility of the venture are raised. However, whether the business is seeking start-up capital for a new manufacturing technique or a bakery, capital can frequently be an insurmountable problem. At the same time, as more workers, previously employed in the traditional manufacturing sector, are displaced, training mechanisms need to be more readily available. As the

accelerating rate of change in the economy affects more and more of the traditional occupations, adult retraining becomes an even more critical concern.

For the Columbus economy, the solution of these problems may provide the key for continued growth and prosperity. The diversity of the economy, and its ability to withstand recession, actually translates into the capacity to adapt to changing economic conditions. In the short-term, current diversity still provides a cushion against economic downturns, but continued long-term growth will require more aggressive solutions to the problems of venture capital and adult retraining.

<sup>4</sup>For a more detailed analysis of this topic, see "The Area Economy: Performance and Promise," *Columbus Economic Review*, Spring/Summer 1983.

**Appendix A**  
**Components of Population Change**  
**Franklin County, 1970 to 1982**

Year	Net Population Change	Net Natural Increase	Net Migration
1970	5,281	10,441	-5,160
1971	8,100	9,439	-1,339
1972	6,170	7,232	-1,062
1973	7,740	6,687	+1,053
1974	2,680	8,919	-4,239
1975	300	8,796	-4,396
1976	1,910	6,403	-4,493
1977	830	5,767	-4,937
1978	2,227	7,237	-5,010
1979	228	7,067	-6,839
1980	2,684	7,172	-4,488
1981	2,500	7,321	-4,731

Source: Columbus Development Department



# APPENDICES

## Appendix A Components of Population Change Franklin County, 1970 to 1982

Year	Net Population Change	Net Natural Increase	Net Migration
1970	5,281	10,441	-5,160
1971	8,100	9,439	-1,339
1972	6,170	7,232	-1,062
1973	7,740	6,687	+1,053
1974	2,680	6,919	-4,239
1975	300	6,896	-6,596
1976	1,910	6,669	-4,759
1977	830	7,040	-6,210
1978	2,620	6,636	-4,016
1979	229	7,067	-6,838
1980	2,594	7,172	-4,578
1981	2,590	7,321	-4,731

Source: Columbus Development Department

## Appendix B-1 Household and Population Estimates Franklin County, 1970 to 1983

Year	Household Size	Number of Households	Total Population
1970	2.98	259,251	772,568
1971	2.96	269,862	798,809
1972	2.96	275,007	814,020
1973	2.89	284,123	821,120
1974	2.81	292,378	830,011
1975	2.77	300,811	834,250
1976	2.74	304,347	839,910
1977	2.70	309,785	837,370
1978	2.63	318,172	836,898
1979	2.63	309,209	814,844
1980	2.61	322,810	843,735
1981	2.60	327,050	850,350
1982	2.59	327,290	848,701
1983	2.58	329,230	849,414

Source: Columbus Development Department

## Appendix B-2 Household and Population Estimates City of Columbus, 1970 to 1983

Year	Household Size	Number of Households	Total Population
1970	2.96	172,056	509,186
1971	2.91	174,949	509,100
1972	2.84	181,883	518,520
1973	2.77	188,820	522,950
1974	2.69	192,392	517,490
1975	2.63	198,009	526,810
1976	2.63	205,252	545,110
1977	2.62	208,082	545,110
1978	2.58	208,082	537,890
1979	2.53	209,641	530,380
1980	2.51	213,278	534,970
1981	2.50	217,132	542,832
1982	2.49	217,132	541,318
1983	2.48	218,788	542,594



**Appendix B-1  
Household and Population Estimates  
Franklin County, 1970 to 1983**

Year	Number of Households	Household Size	Population in Households	Population in Group Quarters	Total Population
1970	259,321	3.08	799,026	34,223	833,249
1971	265,662	3.03	804,960	33,570	838,530
1972	275,007	2.96	814,020	32,610	846,630
1973	284,123	2.89	821,120	31,680	852,800
1974	295,376	2.81	830,010	30,530	860,540
1975	300,811	2.77	833,250	29,970	863,220
1976	304,347	2.74	833,910	29,610	863,520
1977	309,765	2.70	836,370	29,060	865,430
1978	316,172	2.65	837,860	28,400	866,260
1979	319,712	2.63	840,840	28,040	868,880
1980	322,810	2.61	841,389	27,720	869,109
1981	325,050	2.60	845,131	27,700	872,831
1982	327,290	2.59	847,682	27,700	875,382
1983	329,530	2.58	850,188	27,700	877,888

Source: Columbus Development Department

**Appendix B-2  
Household and Population Estimates  
City of Columbus, 1970 to 1983**

Year	Number of Households	Household Size	Population in Households	Population in Group Quarters	Total Population
1970	173,056	2.96	511,890	28,135	540,025
1971	174,949	2.91	509,100	27,940	537,040
1972	181,663	2.84	515,920	27,240	543,160
1973	186,820	2.77	517,490	26,700	544,190
1974	195,395	2.69	526,610	26,080	552,690
1975	198,909	2.65	527,110	25,710	552,820
1976	202,522	2.62	530,610	25,330	555,940
1977	206,082	2.58	531,690	24,960	556,650
1978	209,641	2.53	530,390	24,590	554,650
1979	213,376	2.51	534,970	24,200	559,170
1980	217,135	2.49	541,318	23,508	564,826
1981	218,788	2.48	542,594	23,000	565,594
1982	220,441	2.47	544,489	23,000	567,489
1983	222,094	2.46	546,351	23,000	569,351

Source: Columbus Development Department



**Appendix E-1  
Residential Subdivision Activity 1970-1982  
Franklin County**

Year	Columbus		Suburbs		Townships		County Total	
	Plats	Lots	Plats	Lots	Plats	Lots	Plats	Lots
1970	26	1603	15	438	18	345	59	2386
1971	26	1891	22	713	17	948	66	3552
1972	26	1756	25	1128	12	970	63	3884
1973	31	2196	20	1198	11	302	62	3696
1974	26	897	17	1014	4	148	41	2059
1975	19	1036	15	984	10	210	40	2230
1976	47	2336	21	728	7	284	75	3318
1977	44	2442	21	931	5	259	70	3632
1978	68	3640	33	985	16	316	117	5130
1979	48	2793	37	1534	13	228	98	3975
1980	31	1622	17	505	3	155	51	2319
1981	23	965	14	505	2	42	39	1512
1982	15	487	12	264	2	10	29	761

**Appendix C-1  
Household and Population Projections  
Franklin County, 1980 to 2005**

	Number of Households	Household Size	Population In Households	Population In Group Quarters	Total Population
April 1960	200,763	3.26	653,631	29,331	682,962
1970	259,321	3.08	798,926	34,232	833,249
1980	322,810	2.61	841,406	27,720	869,126
1985	334,012	2.56	855,071	27,000	882,071
1990	344,834	2.52	868,981	27,000	895,981
1995	350,876	2.51	880,698	27,000	907,698
2000	356,371	2.50	890,927	27,000	917,927
2005	362,614	2.49	902,909	27,000	929,909

Source: Population projections for the years 1985 through 2005 were produced by the State of Ohio, Department of Development in accordance with an interdepartmental agreement providing for the use of common population projections. The disaggregation of the population projections by year was accomplished by assuming a constant number of persons living in group quarters and a declining household size consistent with national trends and local conditions.

**Appendix C-2  
Household and Population Projections  
City of Columbus, 1980 to 2005**

	Number of Households	Household Size	Population In Households	Population In Group Quarters	Total Population
April 1960	142,378	3.14	447,778	23,538	471,316
1970	173,056	2.96	511,542	28,135	539,677
1980	217,135	2.49	541,318	23,508	564,826
1985	225,400	2.44	550,000	23,000	573,000
1990	232,900	2.40	559,000	23,000	582,000
1995	237,200	2.39	567,000	23,000	590,000
2000	241,200	2.38	574,000	23,000	597,000
2005	245,100	2.37	581,000	23,000	604,000

Source: Population projections for the years 1985 through 2005 were produced by assuming that the City of Columbus would continue to represent sixty-five percent of the County's population. County projections were produced by the State of Ohio. Disaggregation of the population by year was accomplished by assuming a constant number of persons living in group quarters and a declining household size consistent with national trends and local conditions.



Appendix B-1  
Household and Population Estimates  
Franklin County, 1970 to 1983

Appendix C-1  
Household and Population Projections  
Franklin County, 1980 to 2005

Appendix D-1  
Housing Unit Change  
Franklin County 1970-1980

Indicator	1970	1980	Percent Change
Median Housing Value	\$ 18,700	\$ 47,300	152.9
Median Rent (Monthly)	\$ 92	\$ 175	90.2
Median Household Income (Annual)	\$ 8,034	\$ 17,081	112.6
Housing Units			
Owner Occupied	150,663	184,001	22.1
Vacant for sale	1,463	4,541	210.4
Renter Occupied	108,658	138,816	27.8
Vacant for rent	7,771	12,503	60.9
Other Vacant	2,617	7,163	173.7
<b>Total, All Units</b>	<b>271,172</b>	<b>347,024</b>	<b>28.0</b>
<b>All Vacant</b>	<b>11,851</b>	<b>24,207</b>	<b>104.3</b>

Source: U.S. Census

Appendix D-2  
Housing Unit Change  
City of Columbus 1970-1980

Indicator	1970	1980	Percent Change
Median Housing Value	\$ 17,100	\$ 41,400	142.1
Median Rent (Monthly)	\$ 87	\$ 171	96.6
Median Household Income (Annual)	\$ 6,818	\$ 14,834	117.6
Housing Units			
Owner Occupied	88,265	105,965	20.1
Vacant for Sale	874	2,858	227.0
Renter Occupied	84,781	111,170	31.1
Vacant for rent	6,521	10,980	68.4
Other Vacant	1,917	5,596	191.9
<b>Total, All Units</b>	<b>182,368</b>	<b>236,569</b>	<b>29.7</b>
<b>All Vacant</b>	<b>9,312</b>	<b>19,434</b>	<b>108.7</b>

Source: U.S. Census

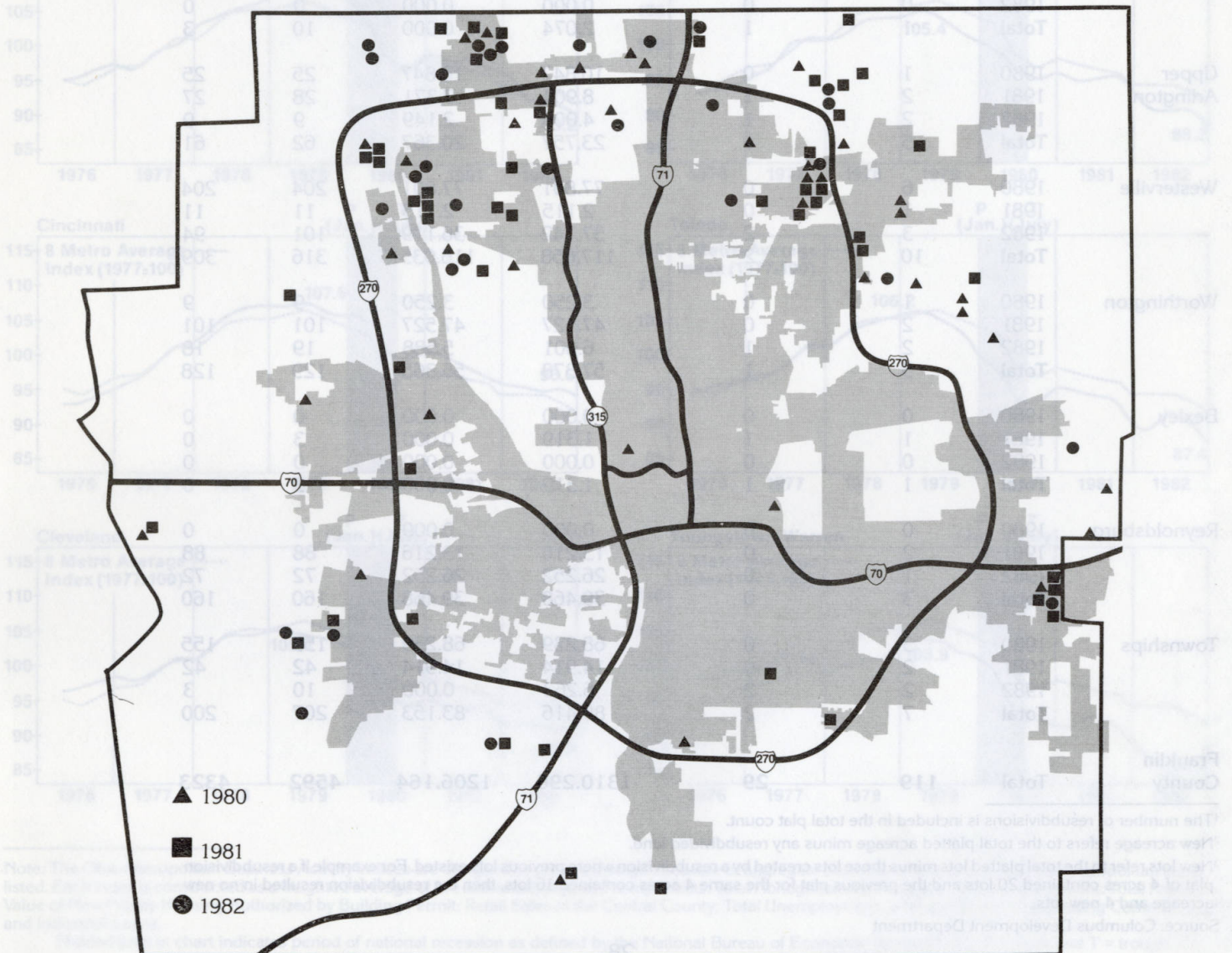


## Appendix E-1 Residential Subdivision Activity 1970-1982 Franklin County

Year	Columbus		Suburbs		Townships		County Total	
	Plats	Lots	Plats	Lots	Plats	Lots	Plats	Lots
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1973	31	2196	20	1198	11	302	62	3696
1974	20	897	17	1014	4	148	41	2059
1975	15	1036	15	984	10	210	40	2230
1976	47	2306	21	728	7	284	75	3318
1977	44	2442	21	931	5	259	70	3632
1978	68	3849	33	965	16	316	117	5130
1979	48	2223	37	1524	13	228	98	3975
1980	31	1659	17	505	3	155	51	2319
1981	23	965	14	505	2	42	39	1512
1982	15	487	12	264	2	10	29	761

Source: Columbus Development Department

## Appendix E-2 Franklin County Residential Plats





## Appendix E-3 Residential Plats by Municipality or Township, 1980-1982

### Franklin County

	Year	Plats	Resubdivisions <sup>1</sup>	Acreage	New Acreage <sup>2</sup>	Total Lots	New <sup>3</sup> Lots
Columbus	1980	31	7	368.297	316.359	1659	1567
	1981	23	6	275.110	260.912	965	901
	1982	15	7	93.193	70.879	487	400
	<b>Total</b>	<b>69</b>	<b>20</b>	<b>736.600</b>	<b>648.150</b>	<b>3111</b>	<b>2868</b>
Dublin	1980	3	0	41.389	41.389	83	83
	1981	1	0	7.447	7.447	1	1
	1982	2	0	23.267	23.267	30	30
	<b>Total</b>	<b>6</b>	<b>0</b>	<b>72.103</b>	<b>72.103</b>	<b>114</b>	<b>114</b>
Gahanna	1980	1	0	15.980	15.980	45	45
	1981	4	0	59.613	59.613	181	181
	1982	1	0	7.896	7.896	30	30
	<b>Total</b>	<b>6</b>	<b>0</b>	<b>83.489</b>	<b>83.489</b>	<b>256</b>	<b>256</b>
Grandview	1980	1	0	4.170	4.170	9	9
	1981	0	0	0.000	0.000	0	0
	1982	0	0	0.000	0.000	0	0
	<b>Total</b>	<b>1</b>	<b>0</b>	<b>4.170</b>	<b>4.170</b>	<b>9</b>	<b>9</b>
Grove City	1980	3	0	48.086	48.086	120	120
	1981	1	0	34.182	34.182	92	92
	1982	1	0	0.596	0.596	3	3
	<b>Total</b>	<b>5</b>	<b>0</b>	<b>82.864</b>	<b>82.864</b>	<b>215</b>	<b>215</b>
Hilliard	1980	1	1	2.074	0.000	10	3
	1981	0	0	0.000	0.000	0	0
	1982	0	0	0.000	0.000	0	0
	<b>Total</b>	<b>1</b>	<b>1</b>	<b>2.074</b>	<b>0.000</b>	<b>10</b>	<b>3</b>
Upper Arlington	1980	1	0	10.847	10.847	25	25
	1981	2	1	8.904	7.371	28	27
	1982	2	1	4.006	2.149	9	9
	<b>Total</b>	<b>5</b>	<b>2</b>	<b>23.757</b>	<b>20.367</b>	<b>62</b>	<b>61</b>
Westerville	1980	6	0	77.801	77.801	204	204
	1981	1	0	2.115	2.115	11	11
	1982	3	2	37.742	36.119	101	94
	<b>Total</b>	<b>10</b>	<b>2</b>	<b>117.658</b>	<b>116.035</b>	<b>316</b>	<b>309</b>
Worthington	1980	1	0	3.250	3.250	9	9
	1981	2	0	47.527	47.527	101	101
	1982	2	1	6.601	5.588	19	18
	<b>Total</b>	<b>5</b>	<b>1</b>	<b>57.378</b>	<b>56.365</b>	<b>129</b>	<b>128</b>
Bexley	1980	0	0	0.000	0.000	0	0
	1981	1	1	1.319	0.000	3	0
	1982	0	0	0.000	0.000	0	0
	<b>Total</b>	<b>1</b>	<b>1</b>	<b>1.319</b>	<b>0.000</b>	<b>3</b>	<b>0</b>
Reynoldsburg	1980	0	0	0.000	0.000	0	0
	1981	2	0	13.216	13.216	88	88
	1982	1	0	26.252	26.252	72	72
	<b>Total</b>	<b>3</b>	<b>0</b>	<b>39.468</b>	<b>39.468</b>	<b>160</b>	<b>160</b>
Townships	1980	3	0	68.239	68.239	155	155
	1981	2	0	14.914	14.914	42	42
	1982	2	2	6.263	0.000	10	3
	<b>Total</b>	<b>7</b>	<b>2</b>	<b>89.416</b>	<b>83.153</b>	<b>207</b>	<b>200</b>
<b>Franklin County</b>	<b>Total</b>	<b>119</b>	<b>29</b>	<b>1310.296</b>	<b>1206.164</b>	<b>4592</b>	<b>4323</b>

<sup>1</sup>The number of resubdivisions is included in the total plat count.

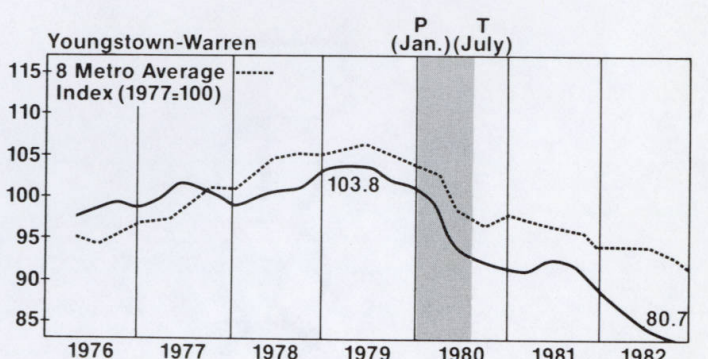
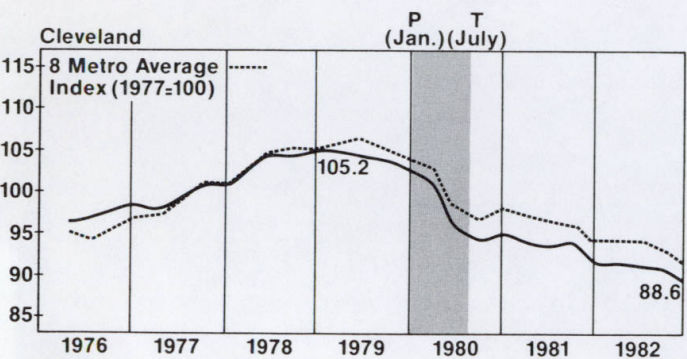
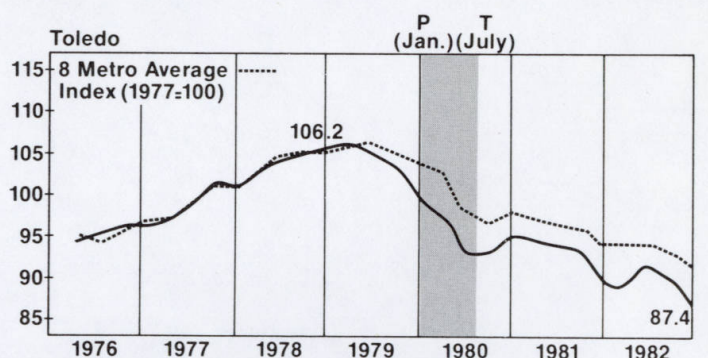
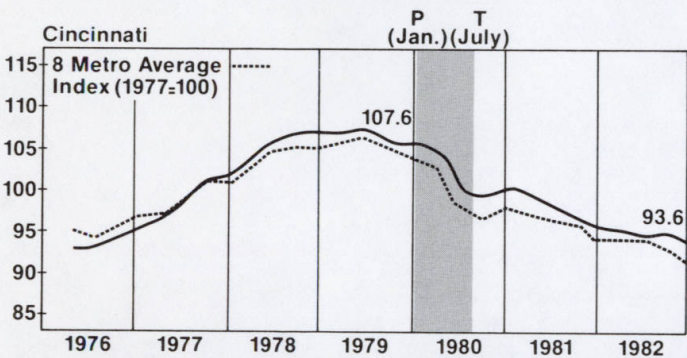
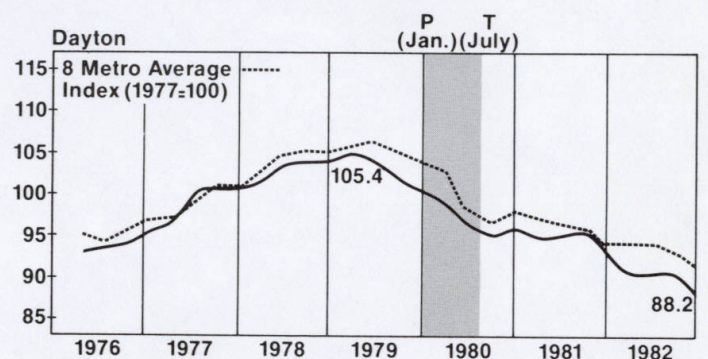
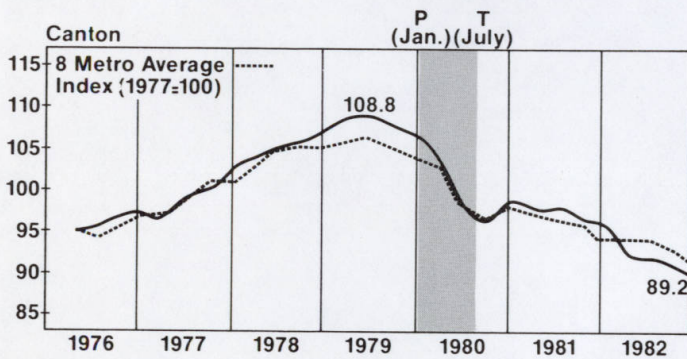
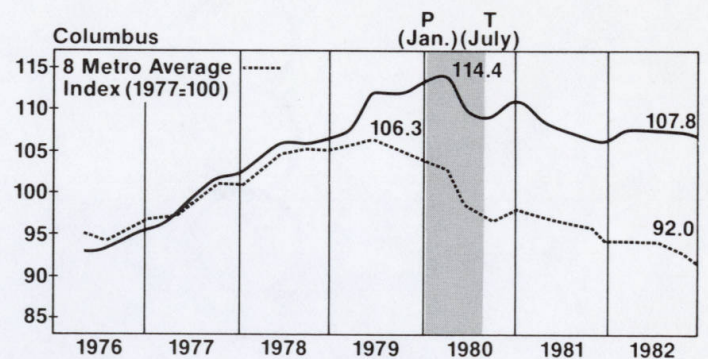
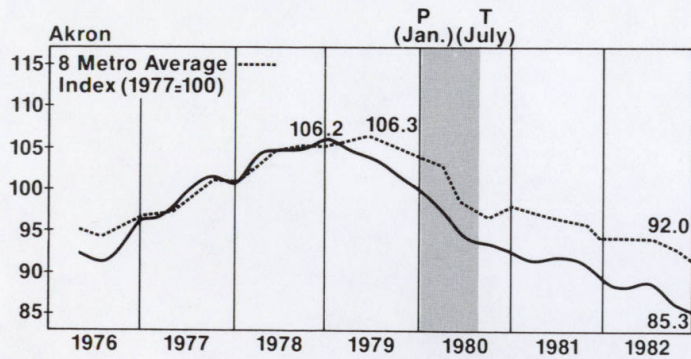
<sup>2</sup>New acreage refers to the total platted acreage minus any resubdivided land.

<sup>3</sup>New lots refer to the total platted lots minus those lots created by a resubdivision where previous lots existed. For example if a resubdivision plat of 4 acres contained 20 lots and the previous plat for the same 4 acres contained 16 lots, then the resubdivision resulted in no new acreage and 4 new lots.

Source: Columbus Development Department



## Appendix F. The Ohio Metro Business Activity Indices



Note: The Ohio Metropolitan Business Activity Indices are designed to provide a single measure of aggregate business activity for each of the metropolitan areas listed. Each index is constructed as a weighted average of five seasonally adjusted components: Total Nonagricultural Wage and Salary Employment; Total Payroll; Value of New Private Housing Authorized by Building Permit; Retail Sales in the Central County; Total Unemployment, and unadjusted Outstanding Commercial and Industrial Loans.

Shaded area in chart indicates period of national recession as defined by the National Bureau of Economic Research, Inc. P = peak and T = trough.