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**Demographic Changes and Future Housing
Demand in Indiana: A Preliminary Look**

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The Relationship Between Demographic Changes and Future Housing Demand in Indiana: A Preliminary Look from the Census

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This article summarizes a portion of a report prepared by the authors for the Indiana Housing Finance Authority to determine the adequacy and affordability of the supply of housing within the state to meet the current and projected future needs of the state's diverse household population.¹ To assess the housing situation in Indiana, the report addressed the following questions:

- How are demands for housing in Indiana changing in accordance with trends in demographics?
- What is the condition and what are the trends of housing affordability in Indiana, especially for low to moderate income homeowners and renters?
- What is the condition and what are the trends in the adequacy of the stock of housing, with housing adequacy being defined as the physical conditions of the housing units (physical adequacy) and by the extent of overcrowding (spatial adequacy)?

We will address only the first of these questions, the relationship between demographic changes and future housing demand in Indiana. Unfortunately, large blocks of information from the 1990 Census, particularly data relating to income and housing conditions at the state level, have not yet been released. Therefore, the portions of the report dealing with housing affordability and the habitability conditions of the housing stock within Indiana are incomplete. Rather than relate these portions of the report at this time, we prefer to wait until more information is released from the Bureau of the Census next year.

Housing Demand

Housing demand refers broadly to the number and types of housing units demanded in a population. It is essentially local in nature, and arises primarily from two sources: area demographics, which constitutes the raw material of housing demand and establishes the need for housing; and the current and expected future income of households, which provides the economic ability to obtain housing units. In other words, income converts the need for shelter into effective demand for housing. For the majority of households, income is principally a function of the employment opportunities available to the household head and the other working members of the household. But for householders (heads of households) who are retired, elderly, unable to work, or whose income is below a certain level, income comes largely from pensions and retirement plans and entitlement programs such as social security and welfare payments.

Population Changes and Housing Demand

Demographic, or population, variables are important determinants of the demand for housing. Demographic variables relevant to housing can be divided into three major categories: 1) the size of a popula-

tion; 2) the composition of the population; and 3) the number and types of households that are formed by individuals in the population. Projections of housing demand generally begin with demographics.

Population Size. The size, or volume, of the population at any one time is not in itself particularly important for assessing housing demand. Much more important for housing demand are changes in the size of the population as a whole and of subgroups within the population. Population growth or decline, and the rate of growth or decline, are the dynamic components of population size. Changes in the size of a particular area's population come from additions to and subtractions from the area's population resulting from births, deaths, and migrations of people into (in-migrations) and away from (out-migrations) an area.

Population growth has slowed dramatically in Indiana over the past 30 years. Between 1960 and 1970, Indiana's overall population increased by 11.4%, from 4,662,498 to 5,193,669. From 1970 to 1980, the population increased by 5.7% to 5,490,224. But from 1980 to 1990, the population increased by less than 1% to 5,544,159.

Population Composition. Population composition refers to the makeup of the population, with individuals grouped into age, sex, income, racial, ethnic, and other categories. Changes in population composition are a function of relative rates of births, deaths, and migration among different population groups. Only the age and racial/ethnic composition of Indiana's population were examined in the report.

Age Composition of the Population

The age distribution of the population and changes in the age distribution are important for assessing housing demand because householders in different age groups tend to exhibit different housing demands. Moreover, changes in the size of particular age groups have important implications for future housing demand.

Trends in the age profile of the population need to be considered to formulate a picture of current and future housing demand. We constructed the age profile of the population of the state to reflect householder age groupings used by the Bureau of the Census, which are as follows: 15 to 24, 25 to 34, 35 to 64, 65 to 74, 75 to 84, and 85 and over.

The youngest householder population group, age 15 through 24, insofar as they form separate households (are not dependents or residents of group quarters or institutions, such as university dormitories), tend largely to occupy rental housing. Householders in the 25-34 age bracket have been the largest source of first-time homeowners, although a substantial portion of householders in this age bracket continue to be renters. The large majority of householders in the

35-64 age bracket are homeowners, and householders in this age bracket are the major source of second round, or upgrade, homeowners.

Elderly householders, those age 65 and over, generally tend to prefer housing units of moderate cost that permit them to live independently for as long as they can. This may mean "trading down" to smaller homes or perhaps returning to rental units. But a large portion of elderly households also continue to live in the housing units in which they have been living for some time, thus indicating a possible need for maintenance and repair assistance for elderly homeowners. The super elderly, those 75 and over, tend to have a much greater need for assisted housing facilities or group quarters, such as nursing

homes. However, though many of the super elderly may not be able to live fully independent lifestyles, they often do not need the full services of a nursing home, which means other options for assisted living may be desired.

Table 1 displays the number of persons in each of the above age brackets for the census years of 1970, 1980, and 1990, except that the 75-84 and 85-and-over brackets have been combined into one bracket. The under-15 age bracket is shown for completeness. Figure 1 displays the age profile of the state by the percentage of the total state population in each bracket for the same three census periods.

The census data show a very different trend in the age profile of the state for the 1980s than for the 1970s. Over the decade of the 1970s, the largest numeric and percentage increase occurred in the 25-34 age bracket, with a numeric increase of approximately 235,000 and a percentage increase of 36.7%. The smallest percentage gain occurred in the 35-64 bracket (3.9%), although this bracket still had a sizable numeric increase of 62,676.

Over the decade of the 1980s, the 35-64 and 25-34 groups reversed positions with respect to relative gains. The 35-64 age group showed the largest jump, with an 11.7% increase from 1980 to 1990 (a numeric increase of about 196,500). The 25-34 age group, on the other hand, showed only a 4.7% rise (a numeric increase of about 41,000). The changes relating to the 25-34 and 35-64 age groups over the past two decades reflect the advancement of the "baby boom" generation to "middle age," the entrance of the "baby bust" generation into adulthood, and possibly the large out-migration of younger adults that occurred in the early 1980s.

The effect of the "baby bust" is evident in the trends of the youngest population groups. From 1970 to 1980, the 15-24 age group increased by 131,325, a 14.3% rise, but from 1980 to 1990, this age group decreased by 203,075, a 19.4% decline. The size of the under-15 age group as well as its share of the state's population declined over each of the past two decades, clearly indicating a long-term influence of the "baby bust" on future housing demand.

Significant numeric and percentage gains occurred in the elderly population. The 65-74 age bracket grew by 51,736 from 1970 to 1980, a 17.3% increase, and by 51,582 from 1980 to 1990, a 14.7% increase. The 75-and-over age bracket grew by 39,839 from 1970 to 1980, a 20.4% increase, and again by 59,230 from 1980 to 1990, an increase of 25.2%. The increases in the two elderly population groups reflect the general aging of the population. The percentage of the state's population age 65 and older increased from 9.6 percent in 1970 to 12.6 percent in 1990.

Table 1
Number of Persons by Age Class, and Percentage Changes in Size of Age Class, Indiana 1970-1990

	1970	1980	1990	Percent Change:		
				1970-80	1980-90	1970-90
State Population	5,193,669	5,490,224	5,544,159	5.71	0.98	6.75
Under age 15	1,317,325	1,306,645	1,215,632	-0.81	-6.97	-7.72
Age 15-24	916,964	1,048,289	845,214	14.32	-19.37	-7.82
Age 25-34	639,471	874,408	915,109	36.74	4.65	43.10
Age 35-64	1,612,822	1,675,498	1,872,008	3.89	11.73	16.07
Age 65-74	298,723	350,459	402,041	17.32	14.72	34.59
Age 75 and older	195,086	234,925	294,155	20.42	25.21	50.78

Figure 1
Indiana Age Profile for 1970, 1980, and 1990

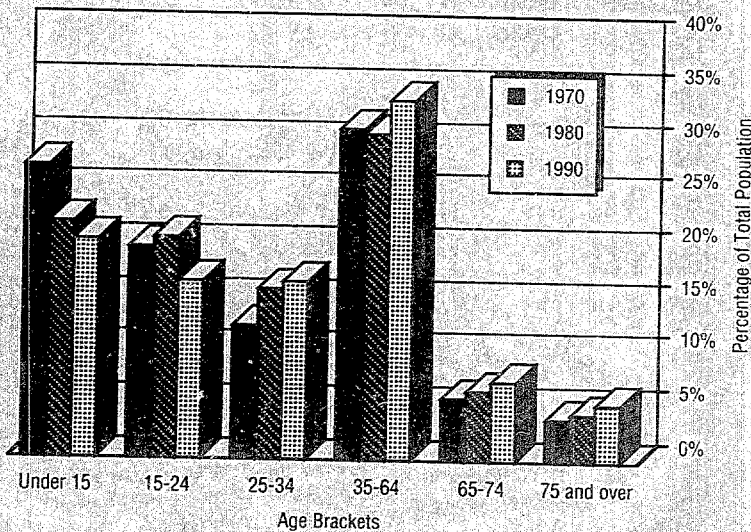
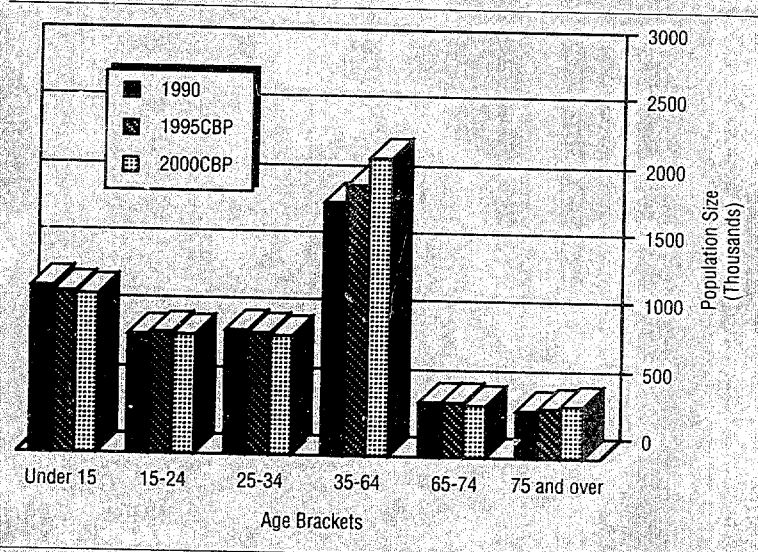


Figure 2
Indiana Population Projections for 1995 and 2000



Age-Profile Projections

For a five- or ten-year projection of housing demand, the fertility component of population change is not directly relevant because the people who will be making housing decisions five years from now are already born. The fertility component, though not important for forecasting the aggregate need for housing within a five- or ten-year forecast period, can, however, be important for decisions relating to the type of housing unit demanded, since it can affect expectations about family and household size. The mortality component of population change is also not important unless some catastrophic event or plague-like illness occurs that sharply increases the mortality within age groups that are important consumers of housing units.

Thus, for a five- or ten-year projection of housing demand, focus is normally placed on those age segments of the total population that will be needing housing within that time. These are the segments of the population that will be forming new households, or that are already formed as housing-consuming households, but who will be demanding different housing units because of changes in income, jobs, location preferences, and family and personal situations. Barring significant changes in migration, projecting changes to those age segments of the population that are likely to be demanding housing in the next five or ten years involves essentially following very predictable changes in those age brackets through time.²

Figure 2 displays the actual 1990 population and Census Bureau population projections for years 1995

and 2000. Census Bureau projections (CBP) indicate that the 35-64 age group will continue to experience the largest gain in the 1990s, with a projected numeric increase of about 132,700 from 1990 to 1995 and a numeric increase of about 305,900 from 1990 to 2000, a 16.3% rise over the decade. On the other hand, the 25-34 age group is projected to experience a decline of over 29,000 between 1990 and 1995 and a decline over the decade of about 96,100, a 10.5% decrease. The youngest age group, age 15-24, is projected to increase about 18,600 from 1990 to 1995, but then decline about 16,200 from 1995 to 2000, yielding a net increase over the entire decade of only about 2,500, a mere .29% rise.

Contrary to the trend of the past 20 years, the 65-74 age group is projected to decline over the decade of the 1990s, whereas the over-74 age group will experience a sizable increase. The Census Bureau projects a decrease in the size of the 65-74 age group of about 37,200 from 1990 to 2000, a decline of 9.25% over the span of the decade. The projected decline in the size of this age cohort could well reflect the decrease in the fertility rate during the Great Depression.³ The 75-and-over age group is projected to increase about 38,600 from 1990 to 2000, a 13.1% rise.

The above population projections clearly indicate that the growth of the Indiana population in the 1990s will occur in the maturing segments of the population. The sizable increase projected for the 35-64 age group implies that the largest demand for housing will come from those already housed who move for various reasons, such as upgrading their housing because of an increase in household income, relocating because of job changes, or moving because of changing family situations (increase in the number of children, divorce, or emptying of the nest). The increase in the elderly population implies an increase in the demand for housing and housing services suitable for aging householders in varying states of health and physical capacity.

These projections also indicate a sharp drop-off in the younger segments of the population, who comprise the potential new housing consumers. The decline in the number of people in the 25-34 age group will have a substantial impact on the future demand for both rental housing and single-family homes, and thus on future housing construction. Historically (in recent history at least), this group has been the source of most first-time home buyers. The very small increase projected for the youngest householder age group (age 15-24) indicates a further decline in the demand for rental housing, but it also implies that without a sharp rise in in-migration, demographically driven housing demand in Indiana will be depressed into the 21st century.

Racial/Ethnic Composition

The ethnic and racial composition of the population is a relevant consideration for housing demand, as households within racial and ethnic groupings exhibit different housing demands or face distinct difficulties that affect their housing choices. Difficulties racial or ethnic minorities face with respect to their housing choices may take the form of significantly lower household income, patterns of past and current discrimination, or difficulties in obtaining financing. These difficulties, as well as the social, linguistic, and other types of support that come from living with one's kind, can result in pressures for minority households to locate their housing units within distinct subareas of local communities.

Another way in which the ethnic and racial composition of the population can be relevant is the way the presence of certain groups can affect the housing decisions of other population groupings. For example, housing data show that large numbers of whites with the economic resources to do so tend to avoid areas that contain heavy concentrations of blacks or other minorities or areas that are perceived to be "in transition" to substantially minority neighborhoods. As a result of these influences, cities and other localities with significant populations of blacks and other minority groups tend to exhibit marked segregation in housing patterns.

The racial distribution of Indiana's population remained fairly stable from 1980 to 1990, with only small changes. The two racial groups of significant size in Indiana are white and black. In 1990, whites constituted just over 90 percent of the state's population, very nearly the same percentage as 1980. The black percentage of the population increased slightly from nearly 7.6% of the state's population in 1980 to about 7.8% in 1990. Asians and Pacific Islanders had the largest percentage increase from 1980 to 1990 (a 54.5% rise), but their numbers remain very small in Indiana, composing only .68% of the state's 1990 population. "Native Americans"—American Indians, Eskimos, and Aleutian Islanders—composed only .23% of the state's population in 1990, up from .18% in 1980. In 1990, Hispanics made up only 1.78% of the state's population, but their percentage of the state's population increased from 1.58% in 1980.⁴

Members of minority groups, however, are not evenly distributed throughout the state. In 1990, blacks numbered about 25% of Lake County, 21% of Marion County, and 10% of Allen County. The largest percentage of Hispanics is in Lake County, where they make up approximately 9.4% of the county's population. The second largest percentage of Hispanics is in Porter County, where they number about 3% of that county's population. Whereas they made up only .68% of the state's population in 1990, Asians and

Pacific Islanders constituted about 3.7% of Tippecanoe County's population (Purdue University and Subaru-Isuzu America) and 2.5% of Monroe County's population (Indiana University).

Household Demographics

It is not possible to translate changes in the size and age distribution of the population directly into a forecast for required housing units. This is because housing requirements also depend on the ways and on the rate that individuals in the population form household units. Households, not individuals, are the housing demanding population units. A household is defined as one or more persons who occupy a housing unit.

The number and type of household units formed are influenced by economic and sociological variables as well as population changes. Patterns of household formation reflect the economic ability of individuals to set up and maintain separate households. They also reflect lifestyle preferences and tendencies that shape the propensity of individuals in the population to desire children, form and break family units, and live with individuals with whom they have no family relationship. Decisions by individuals about whether and what type of household to form are thus strongly influenced by economic and sociological variables.

New households are created primarily when individuals break away from existing household units to form separate households, either alone or with one or more other individuals. But new households can also be formed by individuals moving out of institutions or group housing (university dormitories, prisons, nursing homes) and setting up separate households. Separation from existing household units can come through maturation, as when grown children leave their parents' household, through divorce or separation, or through individuals leaving existing non-family households to form separate households. Households terminate when household members die, move into institutions or group quarters, or merge with other existing household units.

Trends in Household Formation and Composition

Two broad categories of households are identified by the Census Bureau, family and non-family (or primary individual) households. These two categories are distinguished on the basis of the relationship between the household head and the other members of the household. A family household exists when all occupants are related to the householder (household head) by blood, marriage, or adoption. A non-family (primary individual) household refers to individuals either living alone or with non-relatives. Three types of family households are distinguished by the Census Bureau. These are family households with both a husband and a wife (married couple households), family

households with female heads (no husband), and family households with male heads (no wife). Types of non-family (primary individual) households include individuals living alone, individuals sharing housing units with other persons, and individuals living with persons of the opposite sex (unmarried couples with no children).

The types of households formed have implications for the kinds of housing demanded. Although there is not a one-to-one correspondence between household type and the type of housing demanded,

we nonetheless observe that the type of housing demanded tends to vary by household type. In general, the dominant type of housing demanded by married couple households, and especially by married couples with children, is the single-family, owner-occupied house. Other types of households tend to be renters.

An important demographic development affecting the demand for housing is that a fundamental shift in household composition has occurred in this country over the past two decades. A review of the census data reveals that the traditional married couple family household has *not* been the type of household Americans have been forming in largest numbers. This trend is also found in Indiana, as is clearly apparent in Table 2 and Figures 3 and 4. Table 2 shows the number of households in the state of Indiana by household type for 1970, 1980, and 1990. Figure 3 displays these numbers in the form of a "household profile," and Figure 4 summarizes them as a pie chart.

The traditional husband and wife family units (married couple households) have grown far more slowly over the span of the two decades than any other type of household, although the number of such households remains far greater than those of other household types. Married couple households increased only 2.4% from 1970 to 1990, and from 1980 to 1990, the number of married couple households actually declined 3.6%. On the other hand, the number of non-family households increased about 101% over the two decades. The number of female-headed family households (no husband) increased more than 89% over this 20-year period. The number of male-headed family households (no wife) increased a whopping 105%, although they are far fewer in number than female-headed family households.

The rise in the formation of non-family (primary individual) and single parent households during the past two decades has been propelled by socioeconomic changes that have affected all age groups. Young adults have been delaying marriage in the pursuit of education, careers, or simply self-fulfillment. They have been setting up their own households, living with unrelated individuals, or setting up a household with an intimate companion. Young females have been increasingly willing to raise children born out of wedlock and to rear them without a husband. Existing family households have been increasingly uncoupled by separation and divorce. Surviving elderly spouses have displayed an increasing tendency to have their own living quarters rather than live with relatives. These tendencies, as well as others, have all led to the increase in non-family (primary individual) households and single-parent families.

The sharp rise in the divorce rate over this 20-year period no doubt played a big role in the large increase in single-parent households. The number of

Table 2
Number of Households by Household Type for Indiana as a Whole

	1970	1980	1990	Percent Change:		
				1970-80	1980-90	1970-90
State Population	5,193,669	5,490,224	5,544,159	5.71	0.98	6.75
Total Households	1,609,494	1,928,375	2,065,355	19.81	7.10	28.32
Married Couple HHS	1,173,563	1,246,362	1,202,020	6.20	-3.56	2.42
% of all HHS	72.92%	64.63%	58.20%	-11.36	-9.95	-20.18
Female Headed HHS	114,823	175,109	217,628	52.42	24.28	89.43
% of all HHS	7.14%	9.08%	10.54%	27.22	16.04	47.62
Male Headed HHS	29,574	40,174	60,703	35.84	51.10	105.26
% of all HHS	1.84%	2.08%	2.94%	13.38	41.08	59.95
Non-Family HHS	291,474	466,730	585,004	60.13	25.34	100.71
% of all HHS	18.11%	24.20%	28.32%	33.65	17.03	56.41

Figure 3
Indiana Household Profile for 1970, 1980, and 1990

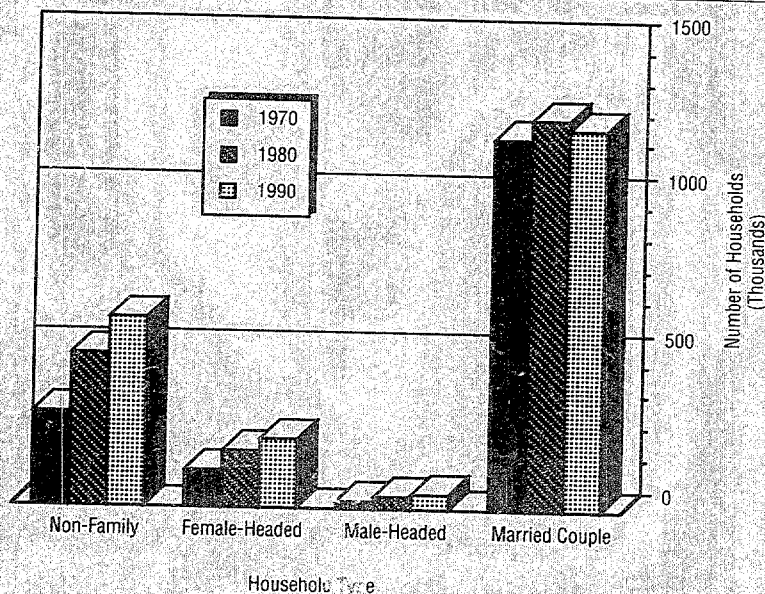
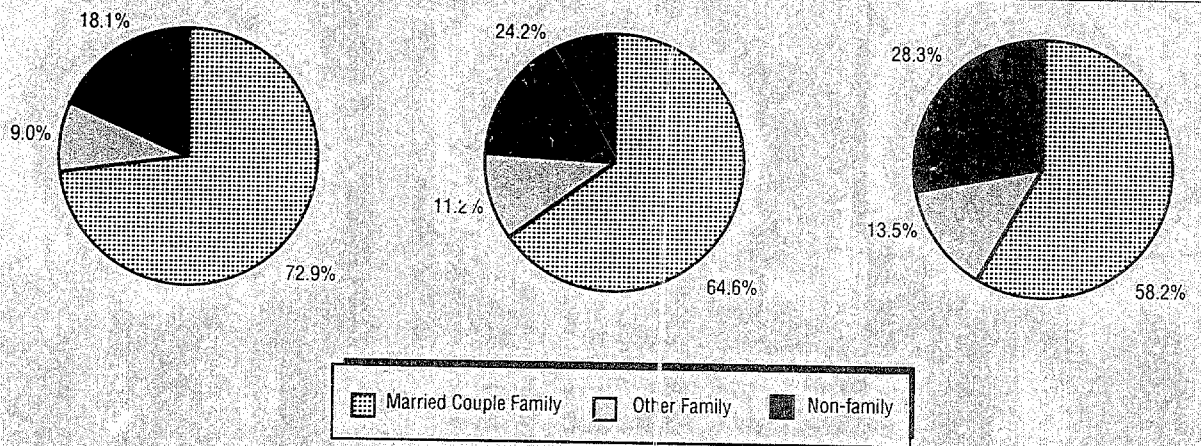


Figure 4
Indiana Households—1970, 1980, and 1990



divorced and separated persons per 1,000 persons in the population age 15 and above increased significantly from 1970 to 1990. The divorce/separation rate among persons age 15 and above was 34.5 per 1,000 persons in 1970, 55.0 per 1,000 in 1980, and 108.4 per 1,000 in 1990.

As a result of the above trends, the number of households increased in the 1970s and 1980s at a

much greater rate than the population. As seen in **Figure 5**, the number of households in Indiana showed a sizable increase while the state's population growth leveled off. Indiana's population increased 5.7% from 1970 to 1980 and less than 1% from 1980 to 1990; but the number of households increased 19.8% and 7.1%, respectively, over the same two census periods.

That the number of households grew at a faster rate than the population is revealed by the increasing household yield. The household yield is defined as the number of households formed from the population. The household yield increased from 309.9 per 1,000 individuals in the population in 1970, to 351.2 per 1,000 in 1980, to 372.5 per 1,000 in 1990.

Although the number of household units demanding housing has increased, these same trends have also led to a reduction in household size. The average household size decreased from 3.23 in 1970 to 2.85 in 1980 to 2.68 in 1990.

Variation of Household Type Among Racial/Ethnic Groups

In addition to examining the types of households being formed by the population as a whole, we also looked at how the formation of household types varied across racial groups and Hispanics. **Table 3** summarizes the distribution of household types across the different groups for the state as a whole.

The propensity to form different types of households varies considerably across racial and ethnic groups. In particular, for blacks, the proportion of female-headed households with children to the total number of black households far exceeds that of the

Figure 5
Indiana Population and Total Households for 1970, 1980, and 1990

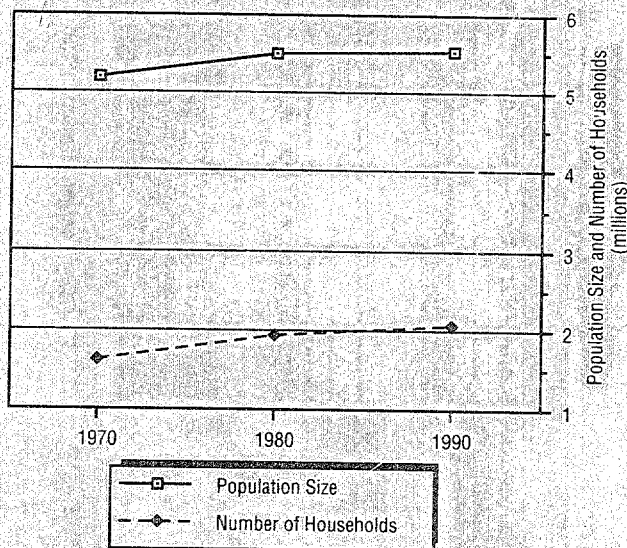


Table 3
Indiana Distribution of Household Types Across Racial Groups and Hispanics:
Household Type as a Percent of the Total Households in Each Group, 1990

	FAMILY HOUSEHOLDS: MARRIED COUPLE FAMILIES:		OTHER FAMILIES:				NON-FAMILY HOUSEHOLDS:	
	With <i>related</i> <i>children</i>	No <i>related</i> <i>children</i>	Male householder, no wife present:		Female householder, no husband present:		Householder <i>living alone</i>	Householder <i>not living</i> <i>alone</i>
			With <i>related</i> <i>children</i>	No <i>related</i> <i>children</i>	With <i>related</i> <i>children</i>	No <i>related</i> <i>children</i>		
White	29.0%	31.2%	1.5%	1.2%	5.7%	3.2%	23.9%	4.2%
Black	18.5%	14.4%	2.8%	2.0%	24.5%	6.7%	26.9%	4.2%
Asians/Pacific Islanders	38.1%	21.1%	1.3%	1.7%	4.4%	2.4%	22.4%	8.7%
Native Americans	28.5%	22.8%	2.9%	1.5%	11.3%	3.7%	22.7%	6.6%
Other races	41.6%	15.8%	4.0%	2.2%	13.9%	3.3%	14.0%	5.2%
Hispanic	37.7%	20.0%	3.2%	2.2%	11.2%	3.3%	17.3%	5.2%

other groups. In 1990, female-headed households with children constituted 24.5% of all black households, whereas married couple families with children constituted 18.5% of all black households. In comparison, female-headed households with children constituted 4.4% of Asian and Pacific Islander households, 5.7% of white households, and 11.2% of Hispanic households.

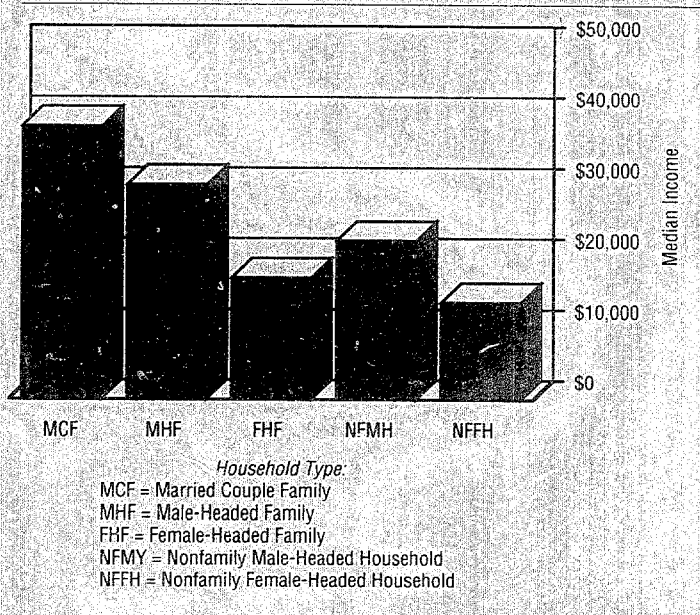
Household Income by Household Type

Current household income by household type was not available to us at the state level. From national data, however, we can see that income tends to vary rather widely among the different household types. Figure 6 displays the median income of households in the U.S. by household type for 1989, the latest year for which this published data series is available. As is clearly apparent, married couple families have the highest median income of any household type. Female-headed households have the lowest household income: Female-headed family households have a median household income approximately 45% of that of married couple families, and the median income of female-headed nonfamily households is only 36% that of married couple families. Thus, the types of households being formed in society have an impact on housing demand in part through an income effect.

Changes in household formation may well be related to recent trends in home ownership. The percentage of homeowner households decreased in 1990 from earlier periods. The home ownership percentage in the state for 1970 was 71.6%, increasing slightly to 71.9% for 1980. However, it decreased to 70.2% in 1990, indicating a decline of nearly two percentage points over the 1980s. Nevertheless, Indiana's home ownership rate of 70.2% in 1990 is considerably higher than the national average of 64.2%.

The traditional husband-wife (married couple) household category has the highest rate of home ownership of all the household types. In contrast to the traditional family household, nontraditional households tend *not* to be home owners. There is and always has been a much lower rate of home ownership in these household types, at least in part because of the lower household income of these household

Figure 6
1989 Median Nominal Income of U.S. Households



types. Thus, the decline in home ownership we have witnessed in recent years can perhaps be partially explained by the change in the types of households that were formed in the 1980s.⁵ Further research is needed, however, to establish the strength of the relationship between the shifts in household formation discussed above and the decline in home ownership.

Conclusion

We have attempted to relate demographic changes in Indiana to future housing demand in the state. Basic trends in population changes associated with housing demand were examined. In addition to charting trends of basic population changes, we also showed that a key to forecasting aggregate demand for housing is what happens to household formation in the state—the number and types of households that are formed or migrate into the state and its various localities. One conclusion from “sheer demographics” is that demographically driven housing demand in the next decade or two will be less—perhaps far less—than it was in the past two decades.

Apart from demographic dynamics, other keys to housing demand are employment opportunities and income prospects in the state. The latter were not addressed in the report because the information required to forecast changes in the economic base of localities was not accessible to us.

Future research into housing demand at the state level should attempt to investigate the linkages between employment opportunities within Indiana and its localities and housing demand. Such research would entail developing models to link forecasts of employment growth or decline and of the growth or decline of the earnings of workers within the state to forecasts of housing demand. Housing demand is essentially a derived demand that stems from the housing needs and the economic capabilities of households that reside in particular localities. People locate in communities in a state like Indiana, with relatively little in the way of climatic or scenic amenities, largely because of employment opportunities. So an employment-based housing model is needed to understand and measure important factors shaping the dynamics of housing demand within the state.

Another avenue of future housing research is to examine the availability of housing for different segments of the population, particularly for those seg-

ments who are disadvantaged in the housing market because of low incomes. Information is emerging that the mismatch between the demand for low-income housing and the supply is increasing and could grow to serious proportions in many areas of the nation. Right now we do not have sufficient information to accurately answer the extent to which this problem exists in Indiana.

Notes

1. The report was prepared to assist the state in complying with Department of Housing and Urban Development (HUD) regulations (24 CFR Part 91, *Federal Register*, Vol. 56, No. 23, Monday, February 4, 1991, p. 4480), promulgated under the mandate of the Cranston-Gonzalez National Affordable Housing Act enacted in 1990, that require states and localities to develop and submit to HUD a Comprehensive Housing Affordability Strategy (CHAS) to be eligible to receive housing related assistance under various HUD programs. All of the data used to prepare this report came from the 1970, 1980, and 1990 decennial censuses. Census data were collected and summarized for the state as a whole and for individual counties, MSAs, economic regions, and, where available, selected cities and townships. In this article, only data at the statewide level are summarized.

2. Net migration (“in” or “out”) is another way in which the size of the housing-demanding segments of the population can change within a five- or ten-year forecast period. For this report, however, the information needed to forecast changes in the economic base of localities that would influence migration was not readily accessible to us.

3. Demographers tell us, however, that this projected drop in the 65-74 age group will only be temporary; the elderly population (age 65 and over) is expected to increase sharply in the years further out as the “baby boom” generation passes from middle age to elderly.

4. Persons of Hispanic origin are an important minority group, but they do not make up a distinct racial group. Indeed, Hispanics constitute a very heterogeneous grouping whose members can belong to one of several racial groups. Because Hispanics are not a distinct racial group, adding the Hispanic percentages of the total population to the percentages of the racial categories will sum to more than one.

5. The shift away from the traditional married couple households interacts with affordability issues since the nontraditional household tends to have lower incomes than the married couple household. The decline in home ownership may also reflect affordability and mortgage credit problems affecting all household types stemming from higher down payment requirements and tougher underwriting standards imposed by lenders in recent years.

A Labor Perspective on Workplace Literacy



Major workplace literacy plans involve unions. Evidence for this may be seen by examining the most frequently cited studies and reports on workplace literacy programs. The guide published by the Business Council for Effective Literacy, or recent publications of the American Society for Training and Development, or *The Bottom Line*, jointly published by the U.S. Departments of Education and Labor, plus numerous articles that have appeared in a variety of journals and periodicals, all point to union-involved programs as the largest, oldest, most innovative, and most exemplary.

Journalists have singled out the labor movement for its leadership in this area. For example, the *New York Times* published an article entitled, "Help for Workers in a Complex World," on September 6, 1989. In its review of workplace literacy activities throughout the country, the *Times* stated: "Outside of government, some of the most aggressive drives for worker literacy come from the trade unions, which are pressing for education benefits for members." This leadership is not new. Pushing for education and training has long been at the center of organized labor's history and tradition. Indeed, unions have been in the "education business" for many years.

More than 50 years ago, the building and construction trade unions established the first apprenticeship programs recognized by the federal government under the Fitzgerald Act. Before that, in 1918, the American Federation of Labor called on Congress to establish a cabinet-level department that would be given the responsibility of eliminating adult illiteracy. Even earlier, many unions were actively providing English-as-a-second-language (ESL) classes to the thousands of new workers who made up the waves of immigration at the turn of the century.

But organized labor's current leadership in worker education and training isn't merely a continuation of its earlier activities. The programs described in this article represent an expansion of union interest and activity unprecedented in the history of organized labor.

For example, like those turn-of-the-century programs, unions today are providing English classes to immigrant workers. Many of these workers are in the process of gaining full citizenship status under the current amnesty program. What is new is the scale of the program. The Los Angeles County Federation of Labor is operating the largest ESL program for immigrants in the entire state of California.

Other prominent and widely known examples of expanded union initiatives are the programs established by unions with their employers in the manufacturing industries. Much has been written about the United Auto Workers' contracts with the Big Three auto makers, which established joint education and

training funds in 1982. The Communication Workers of America (CWA) have a similar program with AT&T called the Alliance for Employee Growth and Development. For the past two years the Alliance has also been assisting AT&T employees in Indiana who have lost permanent jobs.

The funding mechanism for these efforts is noteworthy, for it does not rely on public funding. Instead, many unions have negotiated financial support for the educational programs under their collective bargaining agreements. So in 1982, the UAW and the major car makers agreed that for every hour worked by an employee, five cents would be set aside for a jointly administered education and training fund. This year, that formula is closer to 19 cents for every hour worked. That means that instead of receiving a wage increase of 19 cents per hour, UAW members voted to defer part of a larger pay raise to maintain and expand their educational programs.

Indianapolis is the home of a model program—one of the national training centers of the UAW/Chrysler Region 3 Skill Development and Training Center. The center administers education and training programs with the staff drawn equally from the company and the union. Their co-directors are designated respectively by labor and management.

For decades, the building and construction trade unions have operated training programs funded through joint apprenticeship and training trusts with their contractors. Indiana's construction unions have shown great commitment to these programs in trades such as bricklayers, carpenters/millwrights, cement masons, plasterers, electricians, laborers, iron workers, plumbers and pipefitters, roofers, and sheet metal workers.

A final example of a labor union initiative in this area of worker education and training, the United Steel Workers of America negotiated a recent contract with the Bethlehem Steel Corporation. Under this ratified agreement, the union and company agreed to set aside at least \$300,000 per month over the next four years for a new educational program to supplement the training previously being provided to the workers. This totals more than \$14.4 million to support educational programs for employees of a single company. These education and training programs are currently operating in Northwest Indiana. An excerpt from this collective bargaining agreement is worth citing:

In establishing this program, the United Steelworkers of America and Bethlehem Steel are implementing a shared vision that workers must play a significant role in the design and development of their jobs, their training and education, and their working environment. In a world economy many

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changes are unforeseen and unpredictable. Corporate success, worker security, and employee satisfaction all require that the workforce and individual workers be capable of reacting to change, challenge, and opportunity. This, in turn, requires ongoing training, education, and growth. Experience has shown that worker growth and development are stunted when programs are mandated from above, but will flourish in an atmosphere of voluntary participation in self-designed and self-directed training and education. These shared beliefs will be the guiding principles of the United Steel Workers-Bethlehem Career Development Program.

Over the last few years, Bethlehem Steel has faced numerous challenges to its economic survival. Would Bethlehem Steel have set aside \$14.4 million for such an educational and training program if it weren't an organized employer, and if the Steelworkers had not pressed for and successfully negotiated for the kind of commitment and level of financial resources required?

Some of the most exciting and extensive activity in workplace literacy is in the unionized sector, where unions and their employers have found common ground and worked together on mutual interests. They have embraced the fact that raising workers' basic and technical skill levels—if planned and structured properly—can benefit the employer, the union, and the individual worker.

Unions and employers are working together to establish classes in reading, writing, and math that are only part of a larger, more comprehensive program of upgrading, education, and training for all employees. And these extensive worker education and training programs are themselves directly tied to a broader joint union-management strategy that promotes job security and advancement. There have been many calls for employers to make greater investment in their human resources—their workers—through basic skills education, training, and worker involvement programs. The report of the Commission on Workforce Quality and Labor Market Efficiency (1989) is merely one of several recent government studies that have made this appeal to employers.

Most of the employer response to this appeal is taking place where there is a collective bargaining relationship, where employees are represented by a union. The reason for this is that the collective bargaining agreement provides two keys: money and structure.

First, the collective bargaining agreement provides the financial support for workplace literacy. It

serves as a stable and often sizable funding source not dependent of the fluctuations of government funding. It is important to recall that these funds could have been distributed to the employees as part of a general wage increase. Instead, workers (through their unions) agreed to divert money that could have gone into their paycheck into a jointly administered trust to support education and training activities. That shows a high level of commitment.

Second, the collective bargaining agreement provides the structure and framework for a genuine partnership to be established between an employer and its employees. The contract establishes the rules for discussing and resolving differences between managers and workers.

Workers know the literacy programs can potentially harm as well as help them. No employee will step forward to participate in a training program if revealing one's need for training might jeopardize job security or chances for advancement.

The collective bargaining agreement protects the rights of individual workers regarding training and education as well as job safety, benefits, wages, and other areas. The contract and its grievance procedure have proven to be effective safeguards. Individual workers do not have to rely solely on promises by their employers that participation in a literacy program will not hurt their careers. They have their union and the contract behind them.

Union and worker experiences with employee assistance programs provide valuable lessons about designing and operating workplace literacy programs as well. The dangers and pitfalls—as well as the benefits—are similar.

With stable funding and a larger framework that incorporates the educational program into the workplace, literacy programs are flourishing in the unionized sector and are now firmly institutionalized. Thus, one finds that worker education programs involving unions are not only serving the largest numbers of workers but are also experimenting with the newest learning technologies and approaches.

Today's corporate climate calls for employers to make increased investments in worker education in training. Unfortunately, these increased investments are seldom made.

The scarcity of corporate investments in employee education and training was described recently in a study by the American Society for Training Development entitled *The Learning Enterprise* (Carnevale and Gainer 1989), which was also funded by the U.S. Department of Labor. This report revealed that only 10% of all workers receive any kind of formal training on the job, and that of those who do get training, most are "managers and technical elites." It also reported that employers spend less than 1.5% of their

total payroll costs on the education and training of their employees.

Employers must commit the financial resources required to keep the skills of their workers current. They must embrace the cost of ongoing worker training and education as part of the total cost of doing business.

In a Columbus, Ohio conference on workplace literacy skills, Rena Soifer, director of the UAW-Ford Company's Reading Academy program, explained that her organization operates on three basic principles:

1. Build on what adult learners already know.
2. Teachers and learners are equal partners in the learning process.
3. Make the learning environment relevant and authentic in the eyes of the learner.

Soifer stated that, though her principles appear simple, they are often difficult to follow—especially in the workplace setting. Employers must support the involvement of their employees in the planning and operation of proposed workplace literacy programs. Genuine and effective worker participation is more likely to be found where a collective bargaining relationship exists.

It is essential to recognize and build on the knowledge and skills of workers in manufacturing and other industries when planning a workplace literacy program. Don't insult them by assuming that they are unintelligent and unskilled—even if they need to improve their reading, writing, and math skills.

Soifer also stressed the importance of involving unions and workers from the very start of the effort, and throughout every phase of the operation, as equal partners. Organized labor is not alone in emphasizing the importance of involving workers. The American Society for Training and Development (ASTD) agrees. According to the ASTD, involving workers from the start is the only way that programs will succeed at all. As their study, *Workplace Basics: The Skills Employers Want* (Carnevale et al. 1988), warned:

Sensitivity is important because the potential for misunderstanding is great. Employees need to be reassured that the [literacy program] will not result in loss of jobs. If they know what is going on and why, they are more likely to support the establishment of training programs. Without employee concurrence and cooperation, the Workplace Basics program will never leave the launching pad.

Programs cannot separate the educational process from the job content. Instead, they should build on the workers' intimate knowledge of their job and their employer, and the skills they have attained

through work, personal, and community activities. Ask workers to use the problem-solving, communication, and group effectiveness skills they already possess to develop an approach to the skills gap problem that may be affecting their organization and their co-workers. Use the collective bargaining relationship to address this workplace literacy issue in the same way other issues of mutual interest and concern have been tackled.

To answer the question posed earlier in this article, labor does have a role to play in upgrading literacy in the workplace. The Indiana State AFL/CIO hopes to see the development of a literacy program linking labor, business, vocational education, the Job Training Partnership Act (JTPA) system, and others concerned with adult literacy in the state of Indiana. It would like to address this issue by creating a staff position at the state AFL/CIO level, possibly funded by either state or federal dollars. This facilitator would effectively coordinate with representatives of the above groups in an effort to improve the quality of Indiana's workplace literacy.

By involving workers and unions as equal partners in an effort of vital importance to the economic survival and growth of the enterprise, the dignity, self-respect, and self-esteem of workers are affirmed and raised. And increased self-esteem is likely to benefit both the union as well as the employer.

To quote Samuel Gompers, from a speech he gave in 1916 to the National Education Association:

The organized labor movement realizes that education is not an arbitrary thing that automatically ends with a certain year of life, but that it must continue throughout life if the individual is really to live and make progress. . . . [Unions] . . . realize that education is an attitude toward life—ability to see and understand problems and utilize information and forces for the best solution of [life's] problems.

Is it possible that Gompers' observation 73 years ago is even more true today? Unions must continue to establish and maintain leadership in regard to worker education and training.

What Resources are Available for Upgrading Literacy in the Workplace in Indiana?

Most companies or unions do not have the internal resources necessary to develop and run their own programs. They will be more likely to seek outside help in hiring needed staff, developing an actual curriculum and teaching approach, selecting materials appropriate to the program goals, evaluating the program's effectiveness, and operating the program.

In most communities throughout Indiana, there are educational provider organizations from which a selection can be made. Generally, these are:

- local school districts, which may administer an adult basic education program;
- state education departments, which administer adult and continuing education programs;
- colleges and universities, which operate adult basic education programs and continuing education programs, some with special expertise in job-related skills programs;
- nonprofit literacy groups, voluntary organizations that recruit, train, and support volunteer tutors who give one-on-one and small group instruction in various settings.

Community-based organizations are highly localized entities that operate under various names:

- for-profit organizations and individuals that have or are developing services to help with job-related basic skills training;
- private industry councils, which are actively involved in this area and may use funds from JTPA to develop cooperative job-related basic skills programs;
- local libraries.

A directory of information on agencies and organizations that provide instruction to adults in literacy and basic skills can be obtained by contacting the Indiana Literacy Resource Center (800-624-7585).

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