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March 1990

U.S. DEMOGRAPHIC TRENDS AND THEIR RELATIONSHIP TO FOOD MARKETS

by

Jean Kinsey, Professor

March 9, 1990



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U.S. DEMOGRAPHIC TRENDS AND THEIR RELATIONSHIP TO FOOD MARKETS

"Demographics is one of the most researched subjects in the investment community. It's a very hot topic." (Crudele, 1989)

Who you are, and what you aspire to be, determines a large part of what you eat. As a nation, we are becoming increasingly diverse. There are more and more people of different colors, different nationalities, different lifestyles, and different tastes than ever before.

Demographics grow in importance for determining how much and what types of food are consumed as population growth rates slow and the composition of the population changes. As we become more affluent, food commands a smaller and smaller portion of household income. For example, in 1987, the average U.S. household spent only 9% of its income for food eaten at home; 13% for all food (USDL, 1987). As the proportion of income needed for food falls, consumers become less concerned with food prices and more concerned with taste, convenience, variety, status and healthfulness. As markets grow more competitive, projecting retail sales on the basis of prices and income, though important, is not enough; it ignores critical changes in age, household structure and lifestyle that affect consumer behavior (Myers, 1987).

The demographic composition of the past and current population is well known and can be projected out ten or twenty years with reasonable accuracy (Conner, 1989). Beyond that, statements about population change are largely speculative, based on the assumption that past trends will continue. However, compared to other exogenous forces affecting the demand and supply of food (weather, wars, pests, government policies,

inflation) the influence of demographics is relatively predictable. One can debate which changes are most important and more enduring, but a growing proportion of non-whites, elderly, highly educated workers and working women are typically credited with leading the biggest changes in the way we live and eat.

The direction of demographic trends and their likely influence on food consumption is explored in this paper. Topics covered are population growth and composition, ethnic diversity, household composition of families and nonfamilies, aging, regional, educational and income trends and changes in lifestyle that have come about because of new patterns of labor force participation. The impact that each of these demographic trends has on food consumption and demand is discussed within each section and summarized at the end. This analysis will show that markets, as well as people, are increasingly diverse. A mass market for generic food commodities may be a thing of the past.

POPULATION GROWTH

In 1990 the United States population of 250 million people was growing at half the rate it was in the middle of the twentieth century. An average growth rate of 1.3% per year led the total population to increase by 80% over the 30 years prior to 1980. Population is expected to increase by only 15% in the 30 years following 1980. Population will grow less than 2 per 1000 or 0.2% per year (Spencer, 1986). European growth rates are already down to 0.3% per year, while global growth rates are 1.7% with the highest rates in Africa (3%), Latin America (2%) and South Asia (1.9%) (Stover, 1989).

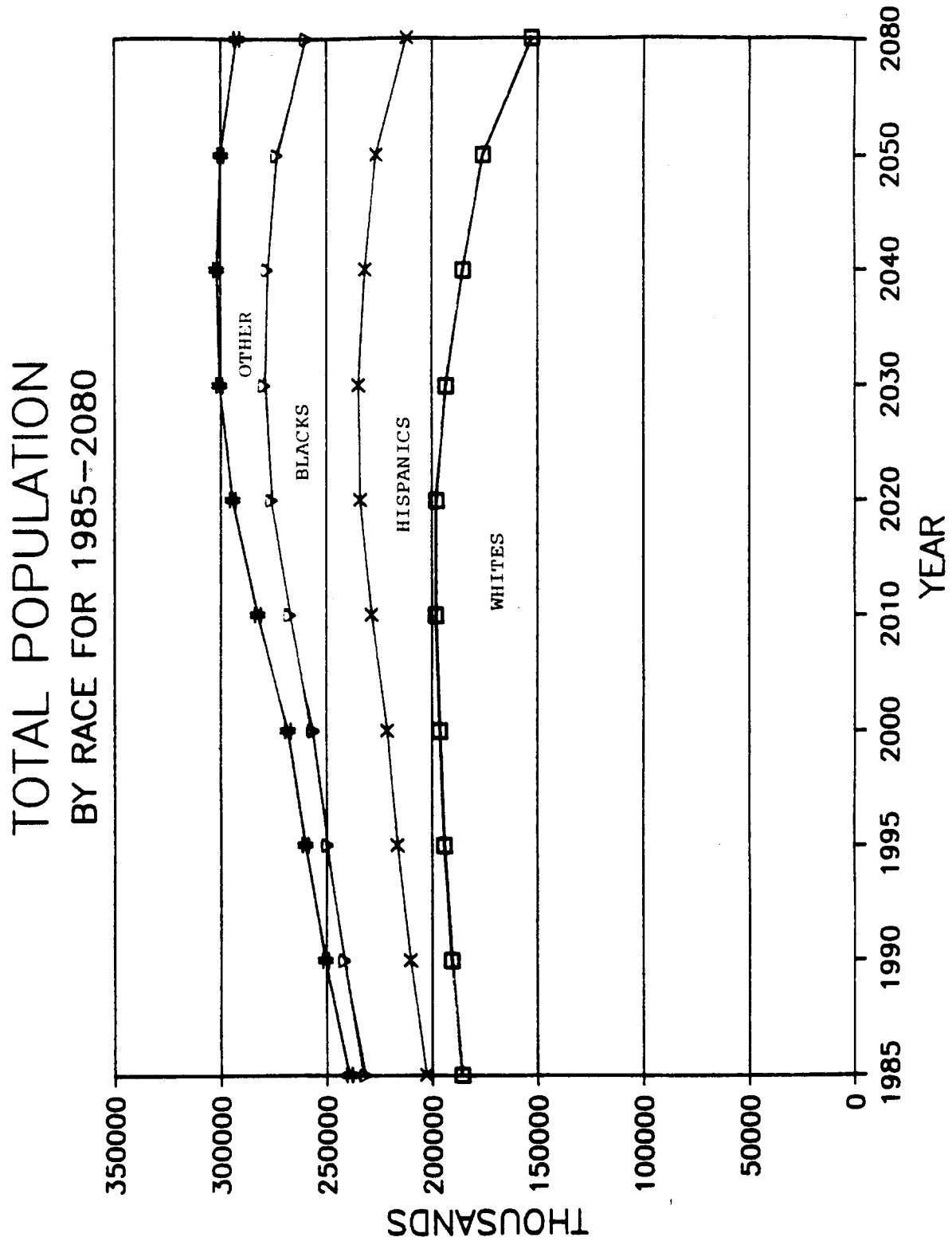
Growth rates in the United States are quite uneven across ethnic groups. Nonhispanic whites increased at a rate of five per 1000 population in 1990. Hispanics and other races (except blacks) increased at a rate of 27 per 1000; blacks at a rate of 15 per 1000. By 2010, these rates will be 1.5 per 1000 for whites, 18 for Hispanics and 11 for blacks. By 2030, the population growth rate for whites is projected to be negative (-2 per 1000) (Spencer, 1986).

Figure 3.1 illustrates the slowing of the overall population growth and the change in the mix of ethnic groups using the middle level population projections of the Census Bureau (USDC, P25-No. 952, 1984 and Spencer, 1986). The proportion of the total that is nonwhite (the space between the top and bottom line) continues to increase throughout the time illustrated. Population growth is projected to taper off for all ethnic groups by about 2030. This leads to the question of how economic sectors and industries such as the food industry, designed to thrive on growing markets, will adjust.

The slowing of domestic population growth means that growth in the quantity of food demanded in the United States and the rest of the developed world will also decrease. Most Americans are already eating as much food as they can and many, more than they should. Over one-quarter of adults are considered obese and 56% report dieting to loose weight (Schlosberg, 1987). Food vendors face increased competition for a share of each consumer's stomach, while the number of stomachs is increasing at a slower pace (Kinsey, 1987).

Population growth has traditionally depended upon fertility rates, but future population growth in the United States will depend mostly on

Figure 3.1 Total Population Growth



Sources: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 331 (July, 1965), No. 953 (1984), No. 1081 (1989); Spencer(1986).

declining mortality, continued immigration, and the fertility of nonwhite women. The demand for food in the future will depend less on population growth and more on a diversity of consumer's preferences stemming from a growing variety of ethnic and cultural backgrounds, lifestyles, and aging needs. "As American consumers grow more educated and diverse and demand increasingly customized service, the future will belong to those who target local differences cost-effectively" (Edmondson, 1988, p.26.).

ETHNIC DIVERSITY

"People eat what they can get from the environment, and, given a chance, they will eat what their forbearers ate"(Gibson, 1981)¹

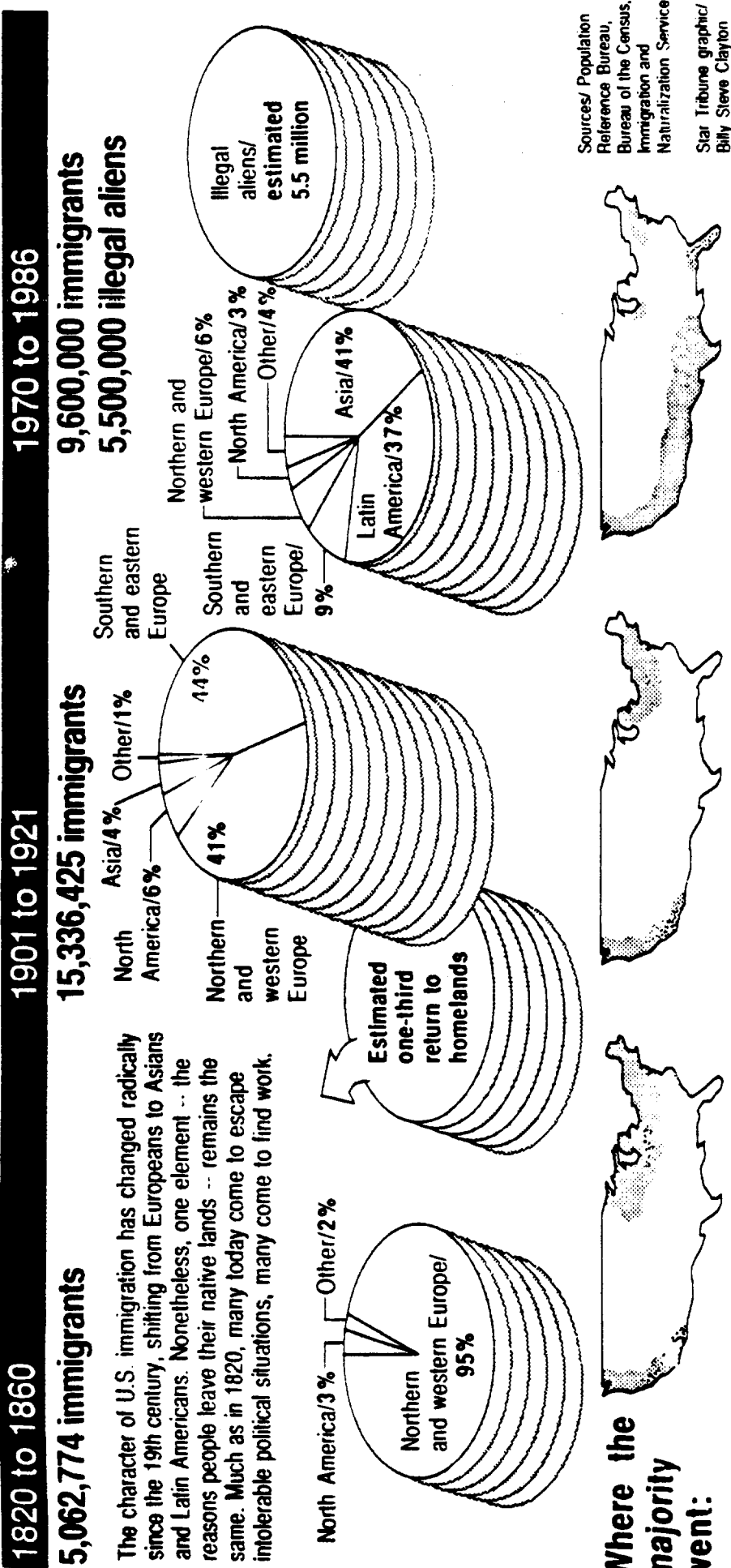
The faces and places of immigration have changed dramatically over the past century. Figure 3.2 illustrates these changes. Initially, Northern and Western Europeans settled in the American Northeast and West. By 1921, they comprised only 41% of the immigrants, with Southern and Eastern Europeans increasingly migrating to the Northeastern U.S. The 1965 Immigration Act abolished national origin quotas opening up the borders to unprecedented numbers of Asians and Hispanics. By 1986, all Europeans comprised less than 15% of immigrants; 41% were Asian and 37% were Latin American. These new immigrants moved into the South, West and Midatlantic states (Batson, 12/6/87).

Immigration accounted for 28% of the population growth in the late 1980s and by 2030, will account for all the growth if births rates do not change (Batson, 1987). Immigration continues largely unchecked in the

¹ This quote was altered to use gender neutral language.

Figure 3.2

Waves of immigration



Source: Batson, Larry (December 6, 1987).

United States where 5% of the world's population takes in 50% of the international migrants, not counting refugees and illegal immigrants each year (Young, 1986). In the past two decades, over three fourths of the legal immigrants have come from third world countries, principally from Mexico, West Indies, Cuba, Korea and the Philippines. About one-fourth of the increase in Hispanics since 1980 is attributed to illegal immigrants (Schwartz, 1988). The actual number of illegal immigrants in the United States is not known, but Census Bureau estimates imply that the difference between legal and illegal immigrants is about 38,000 people per year (Exter, 1987). Estimates of the total number of illegal immigrants in the United States ranges, however, from one to 12 million (Young, 1986).

Ethnic Diversity and Immigration

Diversity in the market will be ensured by continued immigration. The average American will look, behave and eat differently in the next century. In the Southwest, Hispanics now outnumber blacks. Hispanics comprise at least one-fourth of the population in Texas and over one-third of California; they are the majority in New Mexico. Hispanics are relatively young with about one-third under the age of 15; 63% have Mexican roots. Mexican Hispanics are not only the largest group of immigrants, they have the highest fertility rates of all ethnic groups (2.8 per adult woman's lifetime) (Spencer, 1986).

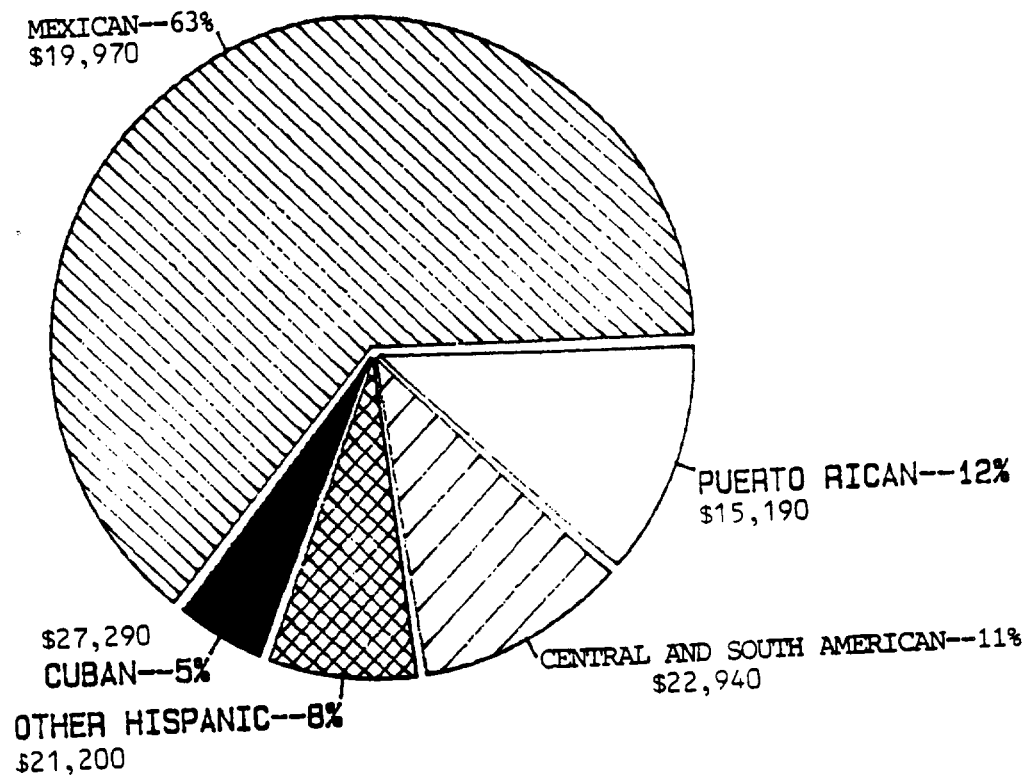
In 1989, Hispanics comprised over 8% of the population, a 39% increase in nine years. Half of the increase was due to immigration (USDC, CB89-158, 10/12/89). Between now and 2010, half of the total population growth will be due to increasing numbers of Hispanics (Exter,

1987). The white population will decline from 87% in 1960 to about 69% in 2005.

Integration of an immigrant group into our society normally takes about 3 generations; Hispanics have awhile to go. They are largely Spanish speaking; they practice Catholicism, male dominance and have few inter-racial marriages (Young, 1986). Their large numbers and concentration in the Southwest have imposed changes on the local lifestyle, including the language in which business is conducted. They register to vote in greater proportions (81%) than the rest of the population (70%), but they are split in their alignment with political parties. Almost two thirds of the Cubans report being Republican, while 42% of the Mexican Americans report being Democrats (Minneapolis Star and Tribune, September 8, 1989). On the other hand, many Hispanic immigrants take several years to become citizens, and are unable to vote at all. This is only one indication of large diversity among Hispanic people. Though most are still relatively poor (21.3 in poverty [Batson, 1987]) and undereducated (49% have not completed high school [USDC, CB88-142, 1988]), the rate of college education among Cubans is ahead of that for the nation as a whole (25% vs. 20%) (Schwartz, 1988). The 1987 median income of Cubans was \$1,304 more than the national median household income, and 1.4 times as much as the median Hispanic's income of \$19,305 (USDC, CB88-148, 1988). Figure 3.3 shows the distribution of Hispanics in the United States and their median incomes in 1987.

Immigrants typically provide a low wage labor pool that U.S. consumers and businesses (though not laborers) have historically welcomed. This has been particularly true for farm labor and in the food service

Figure 3.3 Percentage of Hispanic Persons In the United States By Place of Origin and Median Income in 1987.



Sources: U.S. Department of Commerce, Bureau of the Census, NEWS, CB87-114, 9/11/87 and NEWS, CB88-142, 9/7/88.

industry. In countries like the United States where indigenous population growth has virtually stopped, immigrants provide a way to continue economic growth by creating jobs and decreasing the dependency ratio caused by an aging population. Simon (1989) argues that immigrants work harder, save more and are more innovative than native Americans and that their numbers ought to be increased to help foster economic innovation and growth.

Third world immigrants, however, typically lack skills, education, and financial resources. Only 10% enter with a profession and 5% with a craft (Young, 1986). These immigrants swell the ranks of low income households and the need for low priced consumer goods, especially food and housing. A view opposite that of Simon (1989) is that although a large supply of low wage labor may increase the competitiveness of U.S. industries in world markets in the short run, it ultimately reduces incentives for U.S. businesses to adopt new, more productive and competitive technology. In the countries from which the immigrants flee, the chances for economic reform are also diminished. Pressure to decrease fertility declines and incentives for income redistribution and opportunities diminish as migrants leave their home country for higher wages elsewhere.

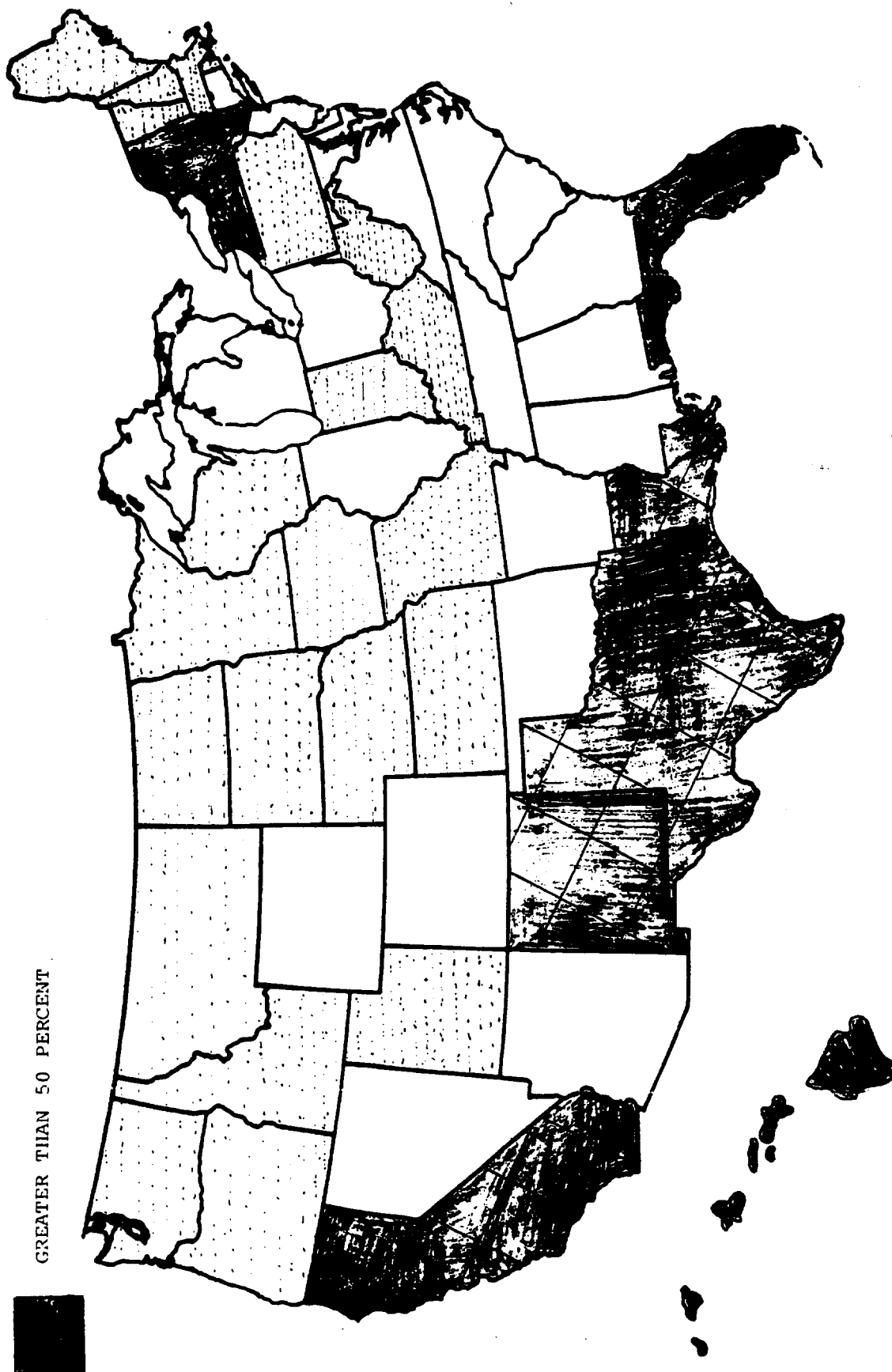
Ethnic diversity, over the next half century will increase the diversity of types of consumer goods that will be demanded and also change the complexion of the schools and the labor market. Nonwhites are relatively young, meaning that they will be found in disproportionate numbers in schools, entry level jobs, and maternity wards. In 1985 the median age of blacks was 26.3, for Hispanics 25, and for whites 32.2

(Minneapolis Star and Tribune, April 11, 1985). Twenty years from now, almost 40% of children in grades 1-8 will be nonwhite compared to 31% today. (The nonwhite count includes all Hispanics, about half of whom are white [Riche, 1988]). "Minority" children will be the "majority" of children in 6 states (NM, CA, TX, NY, FL, LA,) and Washington D.C. by 2010 (Schwartz & Exter, 1989). Those states where less than 20% of youth will be nonwhite in 2010 lie mostly along the northern border. Figure 3.4 shows those states where over 80% of children will be white and those where a majority of children will be nonwhite by 2010 (Riche, 1988).

The mix of faces in American schools and work places is changing fast. It means that the faces in the supermarkets and restaurants will be changing in the future. The challenge to food marketers is to anticipate increasingly diverse needs and changing preferences. Relative to whites, nonwhites were found to eat fewer fruits and vegetables, though more dark green vegetables. They were less likely than whites to drink milk or eat milk products, butter, margarine, beef or deserts. They were more likely to consume rice, legumes, pork, fish, poultry, eggs and sweet beverages (Cronin et al, 1982). This pattern, it turns out, is quite consistent with trends in per capita food consumption, the topic of another chapter.

Blacks were found to spend an average of \$1000 per year less on food than whites, a reflection of their generally lower incomes. They also spend a smaller percent of their food budget eating away from home, that is, 21% compared to 33% for the rest of the nation (Pitts, 1989). In the early 1980s, blacks spent 10% more than the average on meats, fish and eggs and 30% more on fish and poultry, even though they spent less on food overall (Blaylock and Smallwood, 1986).

BY PERCENT OF MINORITY IN 2010



Apparently some Hispanics prefer high fat milk. A specialty market for milk with a 3.8 versus 3.5% butter fat (whole milk) has developed in Hispanic sections of New York City, while the rest of the nation is moving to lower fat milk products (Deveny, 1989). This is an illustration of how ethnic diversity drives food demand and market niches that develop. Others are created by strong cultural and religious beliefs about food. For example, Jewish needs for Kosher food, Indian taboos on beef and American taboos on eating animals used for pets, influence demand in local markets.

Ethnic groups not only increase the diversity of foods demanded, but they introduce new foods into the American diet by selling them to the larger population. Asian Americans were more likely than other minority groups to own their own businesses, with Chinese and Japanese owning 40% of the 225,642 firms owned by Asians. Most of these are in a retail trade, with one quarter of the total receipts (\$18 billion per year) coming from food stores or eating and drinking places (USDC, CB86-195, 1986).

Consumers from all ethnic backgrounds are becoming cosmopolitan eaters. Between 1982 and 1986, the traffic in Asian restaurants increased 54%. It increased 43% in Mexican restaurants and 26% in Italian restaurants, compared to 10% overall. Chinese restaurants are found universally. Mexican restaurants are spreading across the country from the Southwest, while the bulk of Italian restaurants are in the Northeast (Zelinsky 1987).

REGIONAL DIFFERENCES

Regional differences revolve around demographics, ethnic cultures, population growth and income trends. Population gains were the greatest in the South and West in 1980 and 1990 (16 and 21% respectively). They are expected to grow by another 11 and 13% respectively by 2000. The Northeast grew about 3%, and the Midwest gained 1.5%. By 2000, however, the growth in the Northeast will be only 2.4%, and it will decline 0.3% in the Midwest (USDC, CB88-48, 1988). The population continues to shift to the South and West. States that gained the most between 1980 and 1990 are New Hampshire (24%), Florida (31.5%), Texas (24.5%), Arizona (38%), Nevada (34%), Arkansas (43%), and New Mexico (25%). States that lost population during that time are Pennsylvania (-.3%), Ohio (-0.1%), Iowa (-5.3%), West Virginia (-4.8%) and the area of Washington D.C. (-3.8%). Many of the North Central states are expected to loose population by 2000 (USCD, CB88-48, 1988), though there is some evidence that they may be holding their own or starting to grow (USDC, CB88-205, 1988).

We are a rather mobile society. About 18% of the population or 43.7 million people move each year; most people move within the same county. Three percent, or 7.5 million people, move across a state line. Thirty-five percent of people in their early twenties move around the nation each year (USDC, CB89-77, 1989). They leave home to go to college or to find jobs, mostly in nearby suburban neighborhoods. We continue to migrate from rural to urban centers. Almost half of the people in the United States lived in metropolitan areas of 1 million or more, and three-fourths lived in areas designated as metropolitan in 1988 (USDC, CB88-157, 1988). Those who lived on farms comprised 2% of the population in 1987

(USDC, CB88-119, 1988). Rural-nonfarm people made up the other 23% of the population. Mobility helps to introduce a variety of food preferences across the country, but differences in food tastes and types persist between regions. Urbanization increases the number of meals eaten away from home, projected to be at least 50% of all meals in the 1980s (National Restaurant Association, 1978).

Hispanics, the most rapidly growing ethnic culture, live mainly in the Southwest. In 1989, 34% of the Hispanics lived in California, 21% in Texas and 10% in New York. Florida and New Mexico each had 8% and the rest were scattered throughout the United States (USDC, CB89-158, 1989). American Indians, who numbered about 1.4 million, were heavily concentrated in New Mexico, Arizona, South Dakota and Oklahoma. About two-thirds of them did not live on Indian Reservation Land (USDC, CB84-184, 1984). Indians and Hispanics are relatively poor and undereducated. Their food needs will be reflected in the demand for low cost, basic foods that are consistent with their taste preferences.

There were at least 25 different Asian and Pacific Island groups that made up the 3.5 million Asian American population. Although they comprised 1.6% of the total population, they were 5% of the population in the West during the 1980s. Ninety percent of this Asian American population was comprised of (in descending order) Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, Laotian and Thai. Over 20% lived in California, Hawaii or New York. Other states that had large numbers of Asian Americans were New Jersey, Texas (Vietnamese), Illinois (Laotians), Washington (Cambodians), and Minnesota (Hmong and Laotian) (USDC, CB84-02, 1984).

The proportion of blacks living in the South increased since 1980 to 56% from 52%, while their proportion in the Northeast declined. This reversal in a long trend for blacks to leave the South is expected to continue (USDC, CB90-07, 1/10/90).

There are some differences in the age distribution by region. Those counties that had the highest percentage of people under the age of 5 in 1988 were located mostly in the Western Mountain states (Utah, Wyoming, Idaho, New Mexico and Texas) (USDC, CB88-176, 1988). Five other states had 37% of all the preschoolers (California, Texas, New York, Illinois and Florida) (Wall Street Journal, 12/15/88). Referring back to Figure 3.4, one can see that, except for Illinois, these are among the states where minority children will be the majority by 2010. Those counties with the highest percent of people over the age of 65 were located mostly in Florida, with some in Texas and Arizona (USDC, CB88-176, 1988).

Other regional differences may also affect food consumption. For example, the counties with the highest unemployment rates were in the South, but those with the lowest per capita income were mostly in the Midwestern Plains (Nebraska, North Dakota, South Dakota and Montana). Both lead to poorer households and demand for lower cost foods. In contrast, 15 out of the 25 counties with the highest per capita incomes were in a corridor from Washington D.C. to north of New York (USDC, CB88-176, 1988). The Boston - Washington D.C. corridor also had one sixth of the total U.S. population and one fourth of its metropolitan population (USDC, CB89-95, 1989). Except for San Francisco, it also had the six most densely populated metropolitan areas, and was the largest continuous urban area in the country (USDC, CB88-176, 1988). It is largely

responsible for the fact that half of the population lived in the Eastern time zone, while only 15% of the population lived in the Pacific time zone (USDC, CB84-84, 1984; Myers). This east coast area is very urban, cosmopolitan and relatively wealthy. Food choices here reflect a wide variety of tastes consistent with high incomes and fast-paced lives. It sets many of the food trends for high income households across the country. It contains pockets of wealthy households that made up the quintessential yuppie market of the late 1980s.

Regionality and ethnicity contribute not only to homogeneous and tenacious consumption patterns among people within an area, but to diversity between areas as well (Gibson, 1981). In the Southwest, demand has been relatively high for fruits, vegetables and fish, but low for butter and cheese. Southerners reported eating less fruit and fewer dairy products, while eating more dried beans and peas, quick breads and more meat, fish, poultry and eggs than the rest of the nation (Cronin et. al., 1982). Those in the North Central or Northeast regions were more likely to eat desserts; snack food was more prevalent in the North Central region (Cronin, et al., 1982). People in the West and the Northeast spent more on fruits and vegetables, cereals, bakery and dairy products as well as food away from home. In the Northeast more was spent on poultry, meat, fish and eggs. In the West, more was spent on prepared foods (Blaylock and Smallwood, 1986). This is consistent with the Northeast's and West's relatively urban, dense populations, high incomes and concomitant demand for convenience.

HOUSEHOLD COMPOSITION

Household composition is the foundation of demographic trends. Its most important components are household size, age distribution and marital status. The general trend in American households has been towards smaller, older households with fewer married couples and fewer children. Fewer children are a result of declining fertility rates, rates that vary considerably by ethnic group.

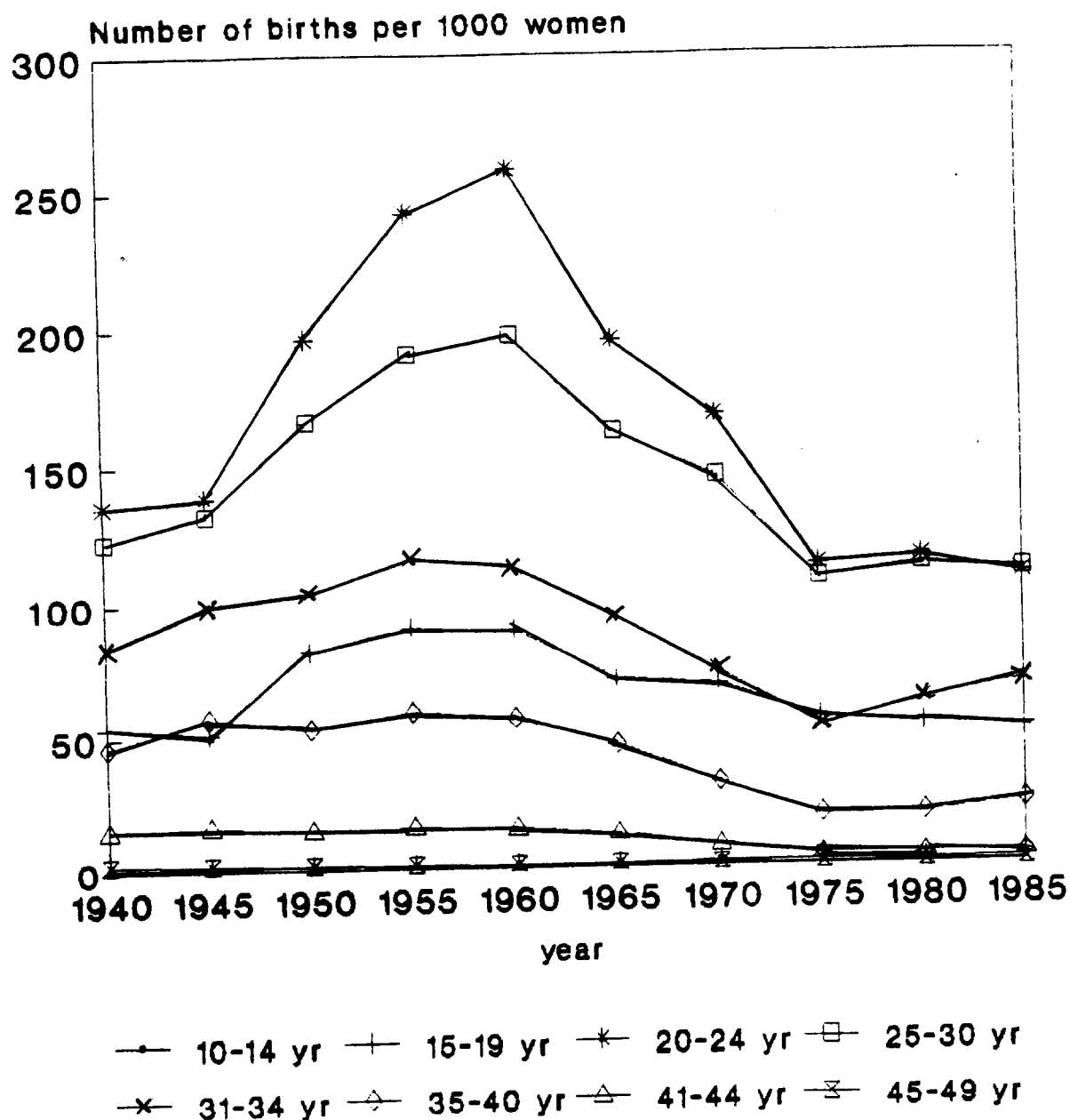
Fertility

As early as the 1920s, the fertility rate began to drop among European and American women. By the 1960s, the idea of zero population growth became a popular cause among those concerned with preserving an ecological balance and preventing the Malthusian (mass starvation) hypothesis from coming true. Among the Northern European countries and the white population of the United States, zero population growth has been a reality since at least 1972 (Young, 1986). That is, the total fertility rate in these populations has been less than 2.1 children per adult woman over her lifetime. The French and other European nations have tried various ways to curtail "denatalite" in order to stimulate economic growth (Tomlinson, 1984). In the United States, fertility has been falling in all age groups since the end of the baby boom in 1964. Figure 3.5 shows the average fertility patterns of American women since 1940. The only recent upward trend has been among women age 31-40 in the late 1980s. This has been called a baby "echo" and is not expected to continue.

Fertility rates among blacks, at 82.2 births per 1000 women age 15-44 in 1985, were 35% higher than for whites (USDHHS, PHS 88-1123, 1988).

Figure 3.5

Fertility Rates: 1940-1985 (by age group of mother)



Source: U.S. Statistical Abstract-1989, (1988)

Hispanic fertility rates were 50% higher than whites' and 9% higher than blacks'. Fertility among foreign born women was 99 per 1000 women in 1986, compared to 68 for native born American women, and 54 for European women (USDC, CB88-04, 1988) Even so, in 1990 the number of white births in the United States (2,629,000) was over five times the number of Hispanic births, four times the number of black births and 22 times the number of births among other races (Spencer, 1986).

Fertility rates are largely a function of culture, health, income, and the availability of effective contraception. Fertility rates fell among both blacks and whites by almost the same percentage (47% and 44%, respectively) between 1960 and 1985 (USDHHS, PHHS88-1123, 1988). It could hardly be a coincidence that the baby boom ended shortly after "the pill" first appeared on the American scene. In 1982, the percent of blacks and whites who were surgically sterile was very similar, 22% and 26%, respectively. Those reporting regular use of contraceptives was another 36% and 37%, respectively. The abortion rate, however, was twice as high among nonwhites, at 55.5 per 1000 women (USDC, Statistical Abstract 1988, 1987). If the distribution of income and education among blacks were to resemble that of whites, their fertility rate would be expected to match that of whites. The same could eventually be true of the Hispanics, but as newer immigrants, their fertility rates will take longer to decline. Since Hispanics are growing faster than the blacks and both are growing faster than the whites, by the year 2005, the black and Hispanic populations will be roughly equal and together will comprise over one-fourth of the total population.

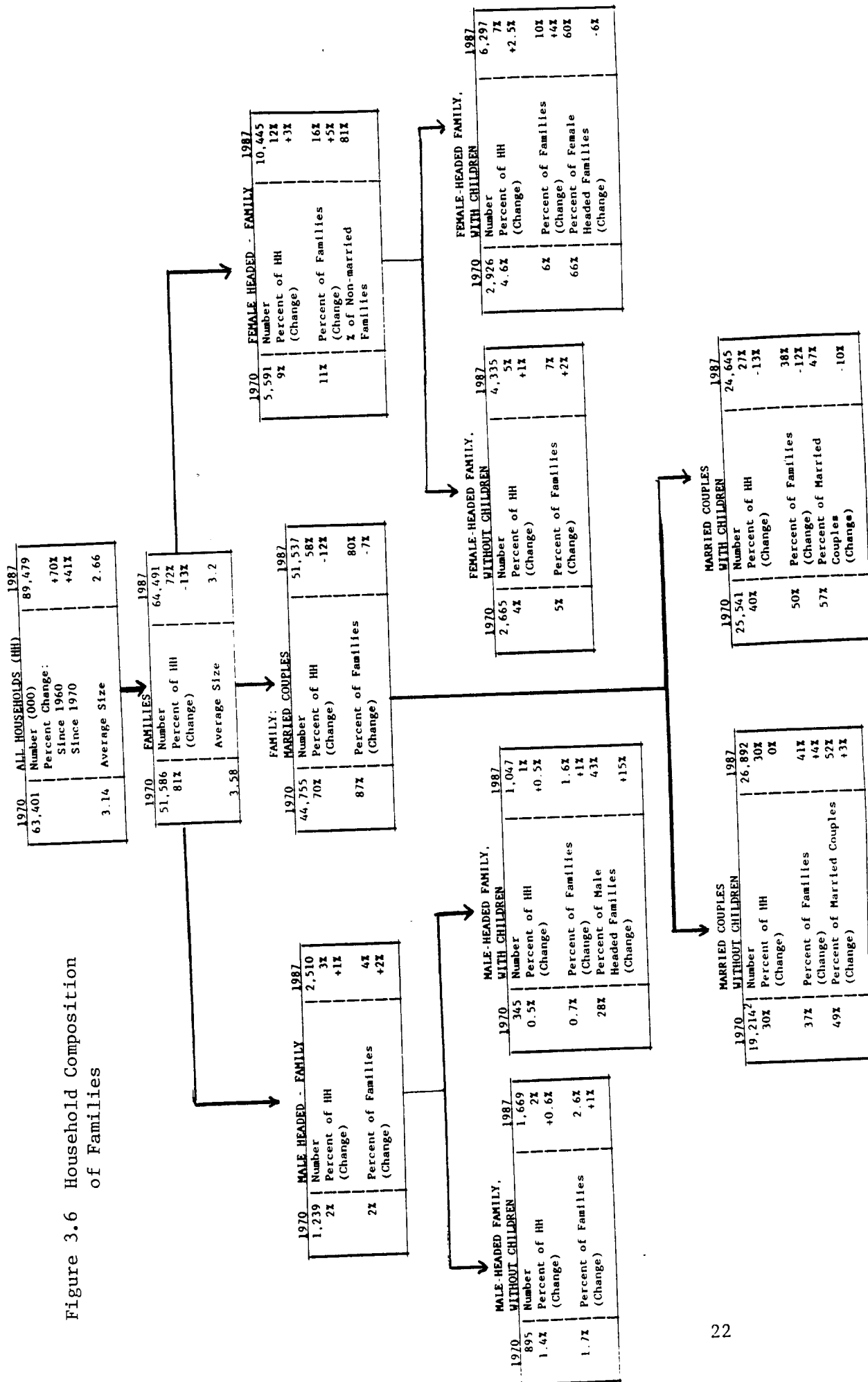
Households and Families

The average number of people per household was down to 2.6 by 1988 due to a growing number of singles and a decline in fertility. The average number of people per family was down to 3.2 due to fewer children and an increase in single parent families. Families and households were the same average size in 1900 (4.8 persons) and still in 1940 (3.8 persons). Families are those households who have members living together that are related by blood, marriage or adoption. Families made up 72% of all households in 1987, nine percentage points fewer than in 1970 (see Figure 3.6).

There is a striking decline in the percent of married couples. They comprised 58% of households and 80% of families in 1987, down from 70% of households and 87% of families in 1970. The percent of all households made up of married couples with children dropped below 28% by 1987. One quarter of married couple families with children had at least one stepchild in the family. These families, usually comprised of a biological mother and stepfather, tended to have lower incomes than the average for married couples (Otten, 1990). The percent of married couple households with no children present remained a steady 30% of all households between 1970 and 1987.

The decreased percentage of married couple households is partly due to later marriages. The median age of marriage was at a record high of 23.6 years for women in 1987, and at a near record high of 25.9 years for men (USDC, P-23 NO. 150, 1987). The percent of persons age 25-29, who had never been married, doubled since 1970--from 19% to 42% of men, and from 11% to 19% of women (Riche, 11/88). This lead to speculation that the

Figure 3.6 Household Composition of Families



Sources: U.S. Department of Commerce, Bureau of the Census, Current Population Reports Series 20, No. 402 (1985), No. 419 (1987); Series P-23, No. 150 (1987), No. 145 (1985); Waldrop (1989).

proportion of women who will never marry may gradually increase from 5% to 10% (Riche, November 1988).

Single parent families accounted for one-third of the increase in the number of households during the eighties. Among Hispanics, in 1988 19% of families were headed by a female, compared to 11% for non-Hispanics (Wall Street Journal, August 21, 1989). Four out of five single parent families were headed by women who had been divorced, widowed or who had children outside of marriage. Over the past 20 years, two-thirds of female headed families have had children present. They made up about 7% of all households and 10% of families. In the first half of the 1980s, the birthrate among unmarried women rose 12% (mostly among whites), while it dropped 3% among married women. In 1986, 20% of white infants and 74.5% of black infants were born out of wedlock (New York Times, January 6, 1986). This serves to increase the number of single parent households and the number of poor, female headed households in the economy.

Male headed households (family and nonfamily without a spouse present) also grew rapidly in the eighties (Waldrop, March 1989). Male headed families were more likely to have children present in 1987 (43%) than in 1970 (28%), but these families comprised only 1% of all households. Two-thirds of male headed families and 40% of female headed families did not have children under age 18 present. Together, they made up 7% of all households.

Increases in male and female headed families and/or households are attributed largely to divorce. Divorce rates increased 173% between 1970 and 1980, peaking in 1981. They leveled off, remaining at about 5 per 1000 population. Almost half of all marriages were likely to end in

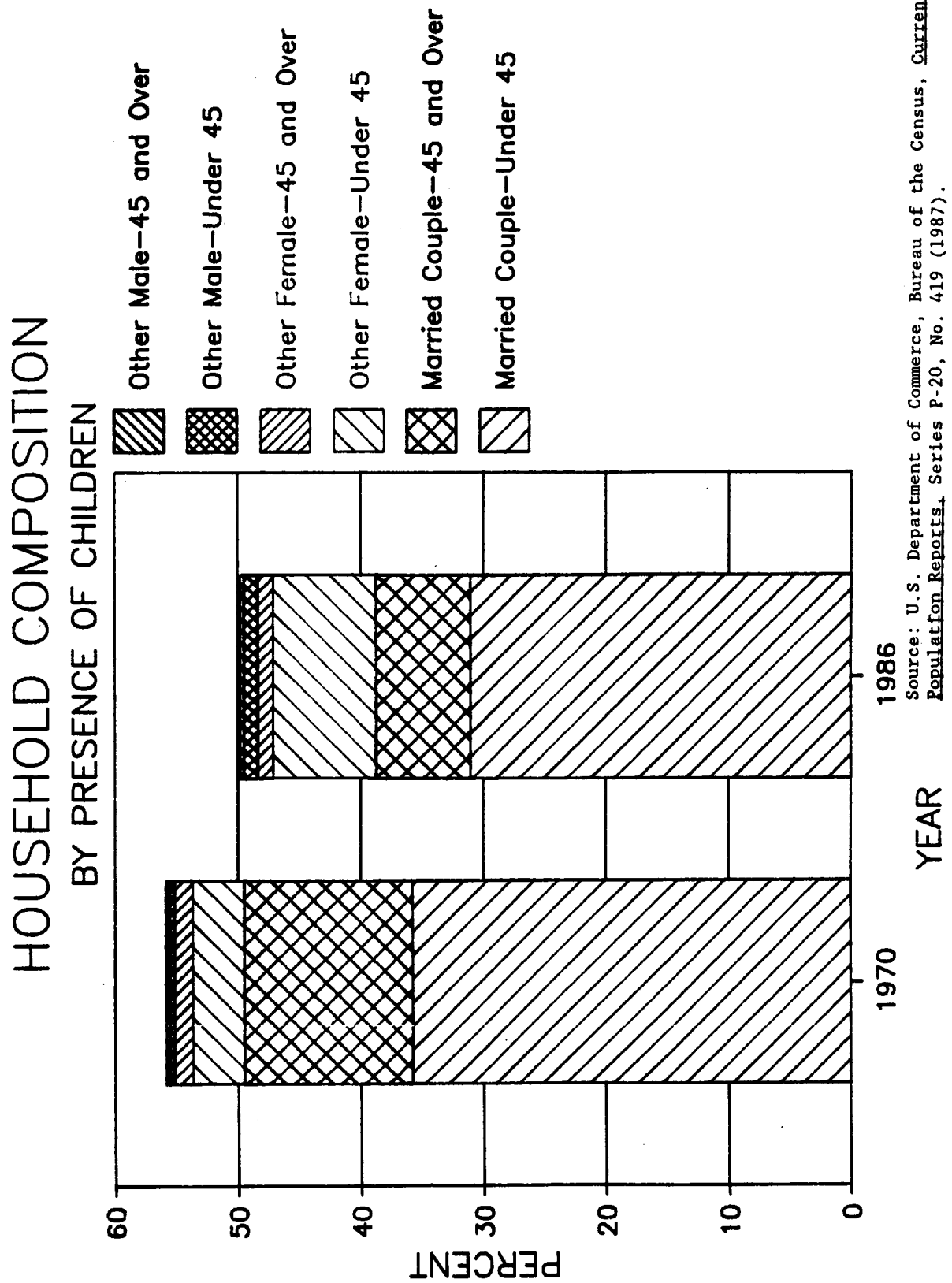
divorce, and about 2% of all married women divorced in any given year (USDC, P23-No. 150, April 1987). Divorce creates a larger number of small households which has been sustained by a decline in the rate of remarriage (123 per 1000 divorced women in 1970, compared to 82 per 1000 in 1985 [Riche, November 1988]). The proportion of divorced women who ever remarry is expected to be about 70% in the future (Riche, November 1988). This means that nontraditional households will continue to increase.

Children

There were seven million fewer children in the population in 1985 than in 1970, the result of a large decline in the birth rate. Figure 3.7 shows that the proportion of households with children under age 18 declined between 1970 and 1986, and that this decline is noticeably large among married couples over age 45. This decline was matched, however, by an almost equal increase in the percent of female headed households with children.

There are still a few large families. In 1987, among families with children present, 20% had three or more children, 37% had two children and 43% had only one child (Crispell, January 1989). Families with three or more children had a lower median income, but spent a higher proportion (20%) on food. Accounting for 10% of all expenditures on food, they are important for the continued marketing of large volume packages and basic ingredients. They were much more likely to report baking as a leisurely activity than other families. They also accounted for 58% of the children living in poverty, even though 20% of them lived in homes with

Figure 3.7 Composition of Households with Children Present



annual incomes in excess of \$50,000 per year (Crispell, January 1989).

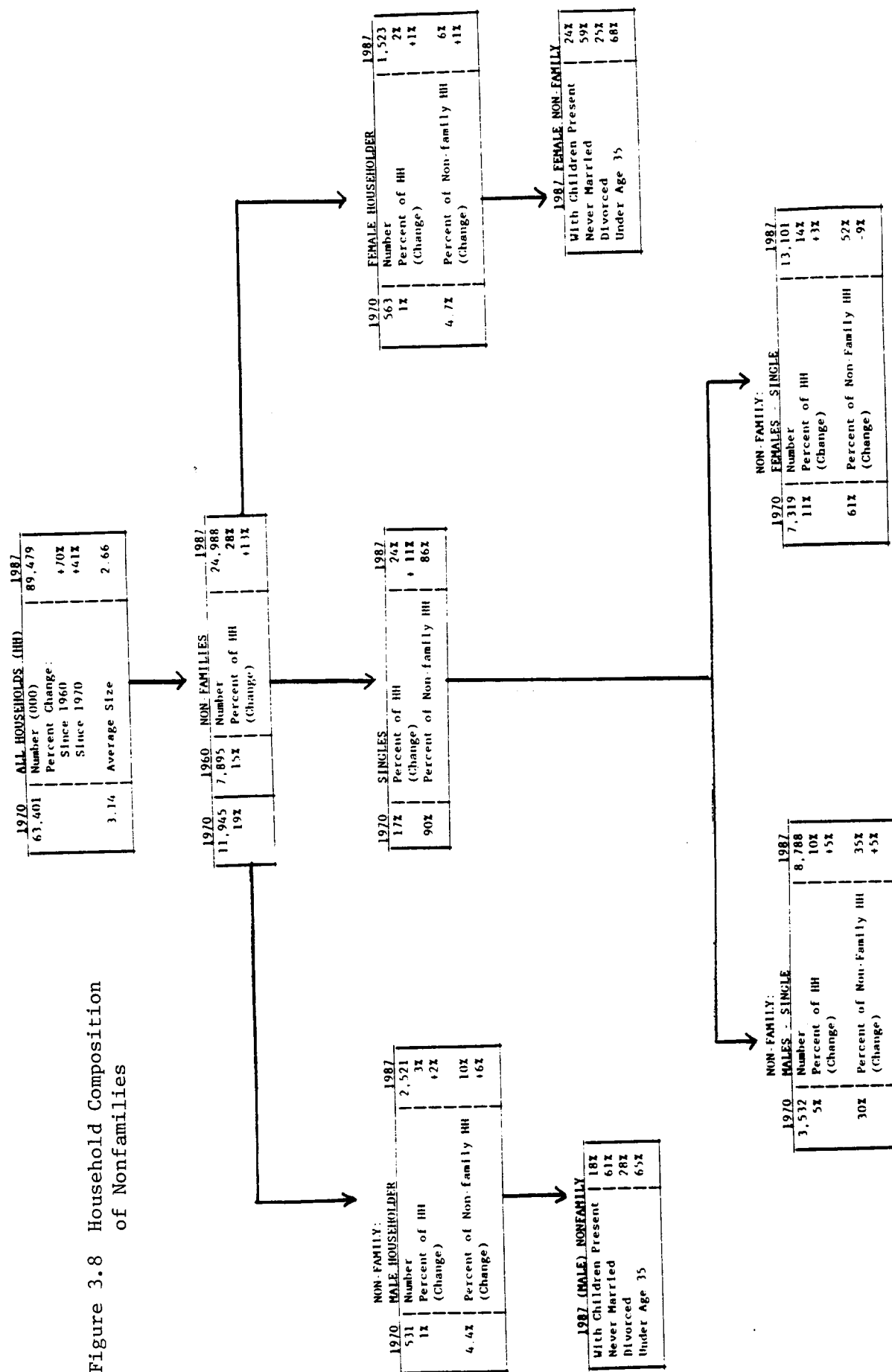
More than one child in five was born to an unwed mother in 1986, and three in five children born that year will spend part of their childhood in a single-parent family (Otten, 1986). In 1980, 23% lived with just one parent. Of those children who lived with a single parent, almost two-thirds lived with a divorced or separated parent, compared to 60% in 1970. Another one-fourth lived with a parent who had never been married, a proportion that has increased dramatically from 7% in 1970.

The average age of preschoolers' mothers declined from 27.6 to 26 years between 1940 and 1980, and from 31.9 to 28.7 years for fathers. In 1980, almost 70% of preschoolers had been born to mothers age 20-29, compared to 56% in 1940; 9% were born to teenagers in both periods (Wall Street Journal, July 5, 1989). A trend for career women to have their first child after the age of thirty means that these women have fewer total children, leaving the majority of children with younger parents than ever. Historically, 8-10% of women age 20-40 had no children at all, but that was expected to rise to 15% by 1990 (Otten, 1986).

Nonfamily Households

During the 1980s, households grew faster than the population (14% verses 8.5% [USDC, CB88-73, May 5, 1989]). Nonfamily households and nonmarried families, 81% of which were single mothers, were the fastest growing household types. Nonfamily households include single person households and those who have two or more adults living together who are unrelated to each other (see Figure 3.8). Nonfamily households with two or more persons comprised 5% of all households in 1987. Sixty-two percent

Figure 3.8 Household Composition of Nonfamilies



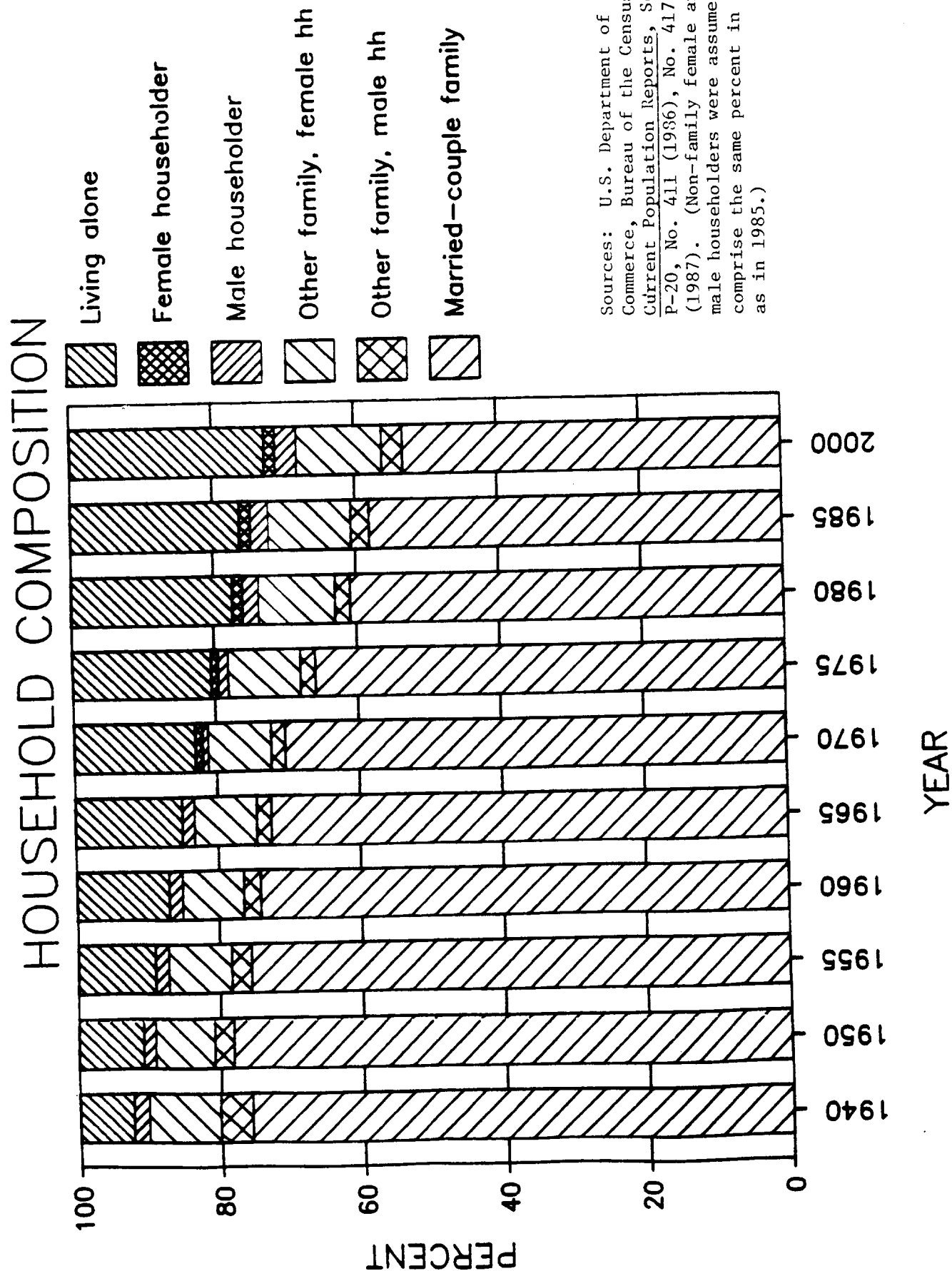
Sources: U.S. Department of Commerce, Bureau of the Census, Current Population Reports Series 20, No. 402 (1985), No. 419 (1987); Series P-23, No. 150 (1987), No. 145 (1985); Waldrop (1989).

were headed by men. Among these nonfamily households with two or more members, one-fourth had members who were divorced, 60% had never been married, 20% had some children present, and their median age was 32. This includes nonmarried couples as well as other adults who share a housing unit through various rental arrangements.

The unmarried couples in this group made up about 4% of all couples (married and unmarried)--a fairly stable proportion over the latter half of the century. About 20% of the nonmarried couples were under the age of 25, and over 80% were under the age of 45 (USDC, P23, No. 150, 1987). Although cohabitation rarely lasts more than two years for any one couple, one should not minimize the importance of this phenomenon to delay marriage among people of all ages (Riche, November 1988). Forty percent of nonmarried households had children present, compared to 48% of married couples (Otten 4/6/89; USDC, P23-No.150, 1987). In terms of their food consumption patterns, nonmarried couples behave very much like married couple households.

Nonfamily households accounted for 43% of new households in the eighties. This trend can be seen on Figure 3.9. The increased size of the top part of the bar, single person households, plus the increase in single parent families, pushed down the bottom section--the portion belonging to married couples, who accounted for only 21% of new households during the 1980s. This helps to illustrate that households are becoming smaller and more diversified in their needs and preferences. A market geared to married couple families with children, less than one-third of all households, will be missing a very large part of the consumers. More than two out of five households had nonmarried heads, and 53% contained no

Figure 3.9 Household Composition Trends



children. The percent of households that looked like the traditional stereotype--married couple with two or more children under age 18 and a nonworking wife--dropped from 23% in 1955 to 7% by 1987 (Rich, 1987).

Living Alone

A growing number of single person households is a sign of affluence. It means that individuals can afford to establish and maintain separate housing units. The percent of households with one person in them increased from 10% in 1940 to 24% in 1987 (USDC, Statistical Abstract, 1988, 1987). The total number of single men and single women under age 65 who had their own households was roughly equal in 1988--6.88 million men and 6.33 million women. A slightly larger percent of younger single households were male than female, but this reversed sharply after age 54. This implies that no one marketing strategy is likely to work for single person households, since they are diversified by both age and gender. Single women spent a larger proportion of their budgets for food at home and only half as much as single men for restaurant food (\$500 per year verses \$1000) (Stipp, 1988). This reflects, in part, the fact that single women's median income was only 64% as high as men's in 1987.

Young single people under the age of 34 who lived alone comprised about one-fourth of the single person households in 1985, compared to 13% in 1970. In both time periods, one-third of single person households were women over age 65 but the proportion comprised of elderly single men declined from 11% to 8%. The median age of women living alone was 65; it was only 41 for men (USDC, P-20 NO. 402, 1985). Half of the women who lived alone were widowed, and one-fourth were over the age of 75. The

number of elderly people will double in the next 50 years, increasing their proportion from about 11 to 30% of the population. Between 30% and 38% of the elderly are expected to continue to live alone, with about 80% being women. Their importance in the total population will increase dramatically and swell the number of single person households (Otten, Wall Street Journal, July 30, 1989).

In spite of a long term trend towards Americans living alone, the inclination for young people to do so during the eighties actually turned downward. For example, among men between the ages of 18 and 25, 54% lived with one or more parents in 1970, while 60% did so in 1985. Women were less likely to stay at home with their parents, but their proportions also rose, up to 48% in 1985 from 41% in 1970 (Riche, 1987). Adult children who lived in their parents' home were more likely to have incomes under \$10,000 (70% of men age 22-23), indicating that economic necessity drives some to this choice. On the other end of the income scale, one-third of men and women in their twenties who lived "at home", lived in homes where the family income was over \$50,000 per year (Riche, 1987). Most likely, they prefer to continue living in a style to which they have become accustomed rather than establish a household of their own at a much lower standard of consumption. It takes young people who have grown up affluent longer to find employment that will support their consumption habits.

The slowing of a trend towards youth establishing their own households echoes a variety of forces, including a decline in real incomes, a slowing of upward mobility, an increase in the proportion of young people going to college, the return of divorced children to their

parent's home, and an increase in the median age of marriage.

Of those young adults who left their parent's home, an increased proportion lived alone or with friends, up from 3% in 1960 to almost 10% in 1985 (Riche, 1987). This helps to account for the increase in non-family households and single person households, as does a growing number of middle-age, single men. One-third of men over the age of 18 were unmarried (never-married, divorced or widowed) in 1987, a 21% increase in seven years (Cutler, February 1989). The largest increase was for those age 22-44, half of whom were single due to divorce.

Single persons made up 25% of households, and those with only one or two persons made up over half of all households in 1990. Young singles are increasingly purchasing homes; the elderly continue to live in their own homes. The impact of smaller household size on food consumption is to increase the per capita expenditure, since economies of scale cannot be realized in purchasing and preparation. Economies of scale in household food consumption are illustrated by the cost of food plans for various size households, designed and monitored by the United States Department of Agriculture. In 1989, a moderate cost diet plan for food eaten at home was estimated to cost a family of four with one teenager \$509.60 per month. The increased cost for an additional fifth or sixth person was 5% less than the cost of adding the fourth person. Increased food costs for the seventh or more persons was 10% less for each additional person (USDA, Family Economics Review, 1989, p. 26). The Consumer Expenditure Survey (CES) data from 1985 shows that actual food expenditures increase by 66% between one and two person households, by 27% for the third person, by 14% for the fourth person and by 7.5% for the fifth person. Households

with six persons or more actually spent 2% less for food than those with five (USDL, BLS, 1987). Smaller sized households spend more per capita on food. In the CES data referred to above, the annual per capita expenditures for household units of various sizes was \$1,935 for one person, \$1,603 for two, \$1,355 for three, \$1,160 for four, \$999 for five and \$816 for 6 persons or more. An earlier study by West and Price (1976) found that the per capita value of food consumed fell by \$2.54 per month for each extra person in a household. That would be about \$7.40 in 1990 dollars.

Price (1988) found that the greatest economies of household size existed in the consumption of fruits and vegetables with lesser economies in bakery products, cheese, soups and sauces. Overall, he found that a family of four spent 6% less for food and used 22% less food per adult equivalent person than an one person household.

Small households increase the demand for food away from home, take out food, conveniently prepared food and food that can be purchased in small portions. Single persons spend up to 50% of their food budget on food away from home (Lubin, 1986). Rising income among single men was found to increase their food expenditures more than for women. For example, Sexauer and Mann (1979) found that the differences in food expenditures between upper- and lower-income, single males was \$11.00 per week (1.7% higher), whereas it was only \$4.00 per week (1.3% higher) for single females. However, upper-income, single females spent an average of \$8.26, or 30% less, on all food per week than upper-income males. Singles were found to consume relatively large amounts of poultry, fruit and vegetables (not potatoes) and dairy products. They consumed less

pork, beef, eggs, processed vegetables, sugar and sweets than those in larger households (Sexauer and Mann, 1979; Smallwood and Blaylock, 1981).

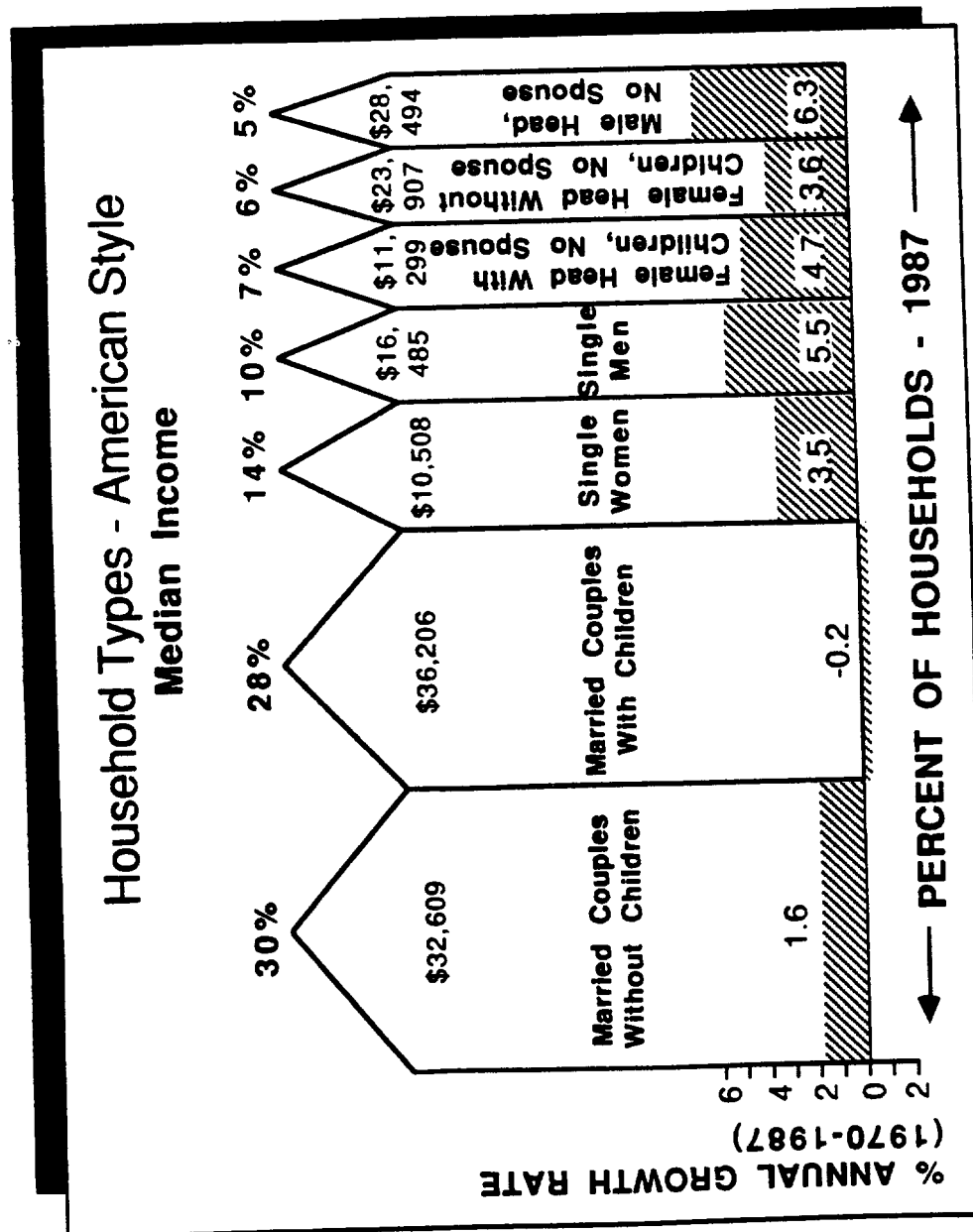
The overall impact of a larger number of small households increased aggregate expenditures on food away from home, dairy products, poultry, processed and fresh fruits. It decreased total expenditures on beef, milk, and processed vegetables between 1972 and 1981 (Kinsey, 1986). As household size has continued to decline, food expenditures can be expected to continue in the direction indicated.

The signals for food markets are somewhat mixed. Smaller households spend more per capita on food, but they tend to have lower incomes. About one third of single person households are women over age 65 whose total food expenditure is relatively low. Single women's income is typically low. Therefore, they spend a higher proportion of their income on food. As household size continues to decline, per capita food expenditures can be expected to increase, and more so, if the income of smaller households also increases.

A growing number of male headed households is a phenomenon that is largely unexplored in terms of food marketing. Most of these men shopped and cooked for themselves. They were less likely than women to use shopping lists or coupons (Wall Street Journal, November 27, 1989). They tended to be conservative about trying new products and their cooking skills were often minimal (Cutler, February 1989). They ate away from home more often than other people. They have higher incomes than female household heads, and can afford to purchase high quality food with several built in services.

Figure 3.10 summarizes the proportion of households comprised of

Figure 3.10 Percentage of Types of Households, Their Annual Growth Rate, and Median Income, 1987.



Source: U.S. Statistical Abstracts, 1988 and 1989.

various combinations of men, women and children in 1987, and how fast each type of household grew between 1970 and 1987. It is easy to see that male headed households grew faster than others, and that married couples with children declined. The relative median income also shows that male household heads have higher incomes.

Group Quarters

Not counted among the households on Figures 3.6 through 3.10 are persons who live in group quarters. About 2.5% of the population, or 5.7 million persons, lived in group quarters in 1980--quarters such as college dormitories (1.1%) or institutions (0.9%), including homes for the aged, mentally ill and prisons. Those places that had more than 40 persons per 1000 living in group quarters were Hawaii (largely military), Washington D.C., North Dakota and Vermont (mostly students). The average United States group quarter population was 25 per 1000 population (Paris, 1985). The type of group quarter can make a difference for food marketing. With a large number of students in college dormitories with dining halls and no cooking facilities, inexpensive restaurants and take out food may be in high demand. If large numbers are confined to institutions, a wholesale food business will be more profitable. Local market niches can be determined to a large extent by the type of group quarters present. The trend is towards fewer institutional homes for the elderly and the ill, and more for college students and prisoners.

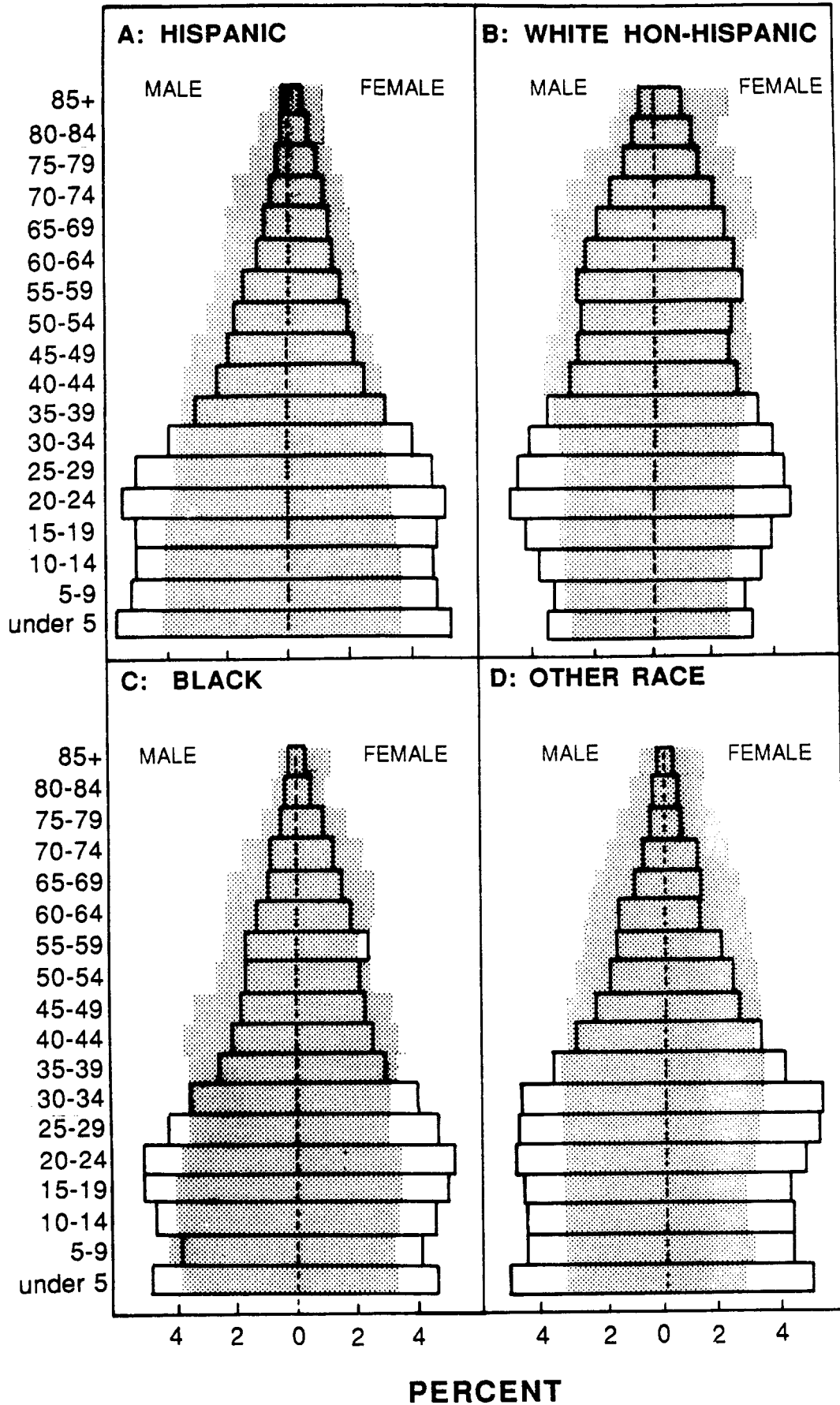
AGE

During the baby boom (1946 to 1964), the birth rate peaked in 1957 at 25.3 births per 1000 population (USDC, Statistical Abstract-1988, 1987). Those babies were age 26 to 43 by 1990, and will swell the ranks of older middle age households (ages 46 to 63) until 2010, when they will begin to swell the ranks of the retired population. The nation's median age was 30 in 1980, 32 in 1990, and will be over 40 by 2030 (USDC, P-25 No.952, 1984).

Changes in the relative number of older people in the population is often illustrated by bar graphs like Figure 3.11. They show that, for all races in the United States, the percent of elderly verses young will increase dramatically by 2030, when the baby boomers will be age 66-84. Unless there is a dramatic change in fertility, the percent of young people will decrease and the distribution of ages will look much more like the shaded column than a pyramid. There will be about the same percent of the population in each age group. The absolute number and the percentage of whites age 5-24 declined in the five years prior to 1985 (USDC, CB86-76, 1986). The total number of children under age five is expected to decline from 18 million in 1988 to 16.9 million by 2000. The nonwhite population is younger than whites, largely due to differential fertility rates. This can also be seen on Figure 3.11 by looking at the shape of the nonwhite age distributions, which remains more like a pyramid even by 2030.

The relative size of each age group in 1986, and the projected change by the end of the century, reveals the relentless movement of the baby boom population bulge as it ages. Age 0-17 comprised 30% of the

Figure 3.11 Age Distribution in the United States by Gender and Race:
Percent of Men and Women in Each Age Group



Sources: U. S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 952 (1984), Spencer (1986).

population in 1986, and is expected to increase 3.2% by year 2000. For subsequent ages, the statistics follow: Age 18-24, 9% with a 3.5% decrease; Age 24-34, 18% with a 15% decrease; Age 35-44, 14% with a 15% increase; Age 45-55, 9.5% with a 46% increase; Age 55-64, 9% with a 13% increase; Age 65-74, 7% with less than 1% increase, and those age 74 and older, 5% with a 26% increase (Crudele, 1989; USDC, Statistical Abstract, 1988, 1987).

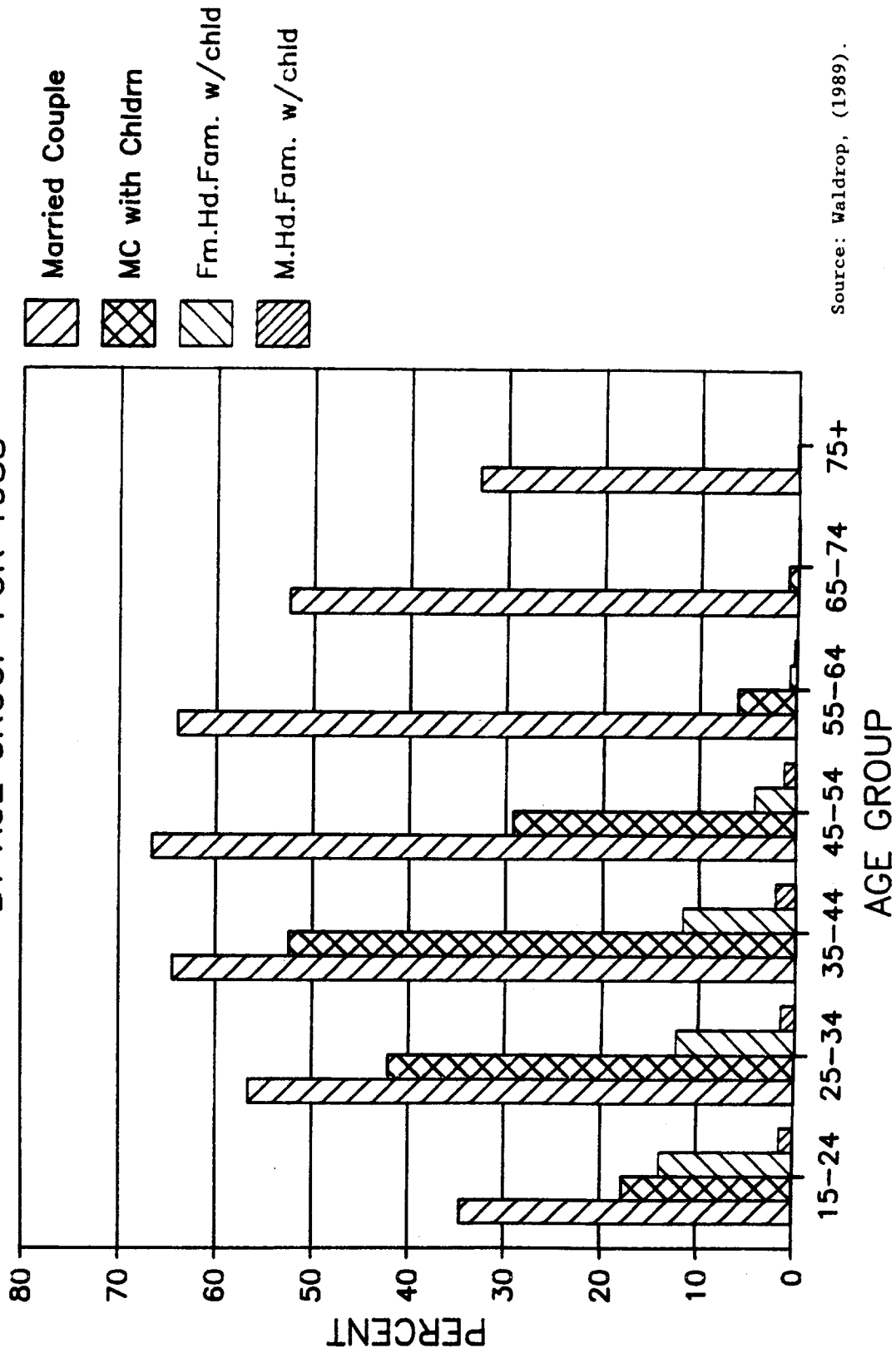
By far the most common household type in every age group (except those over age 75) is a married couple household. Figure 3.12 shows the percent of households in each age group that was a married couple, a married couple with children, female and male headed families with children in 1988. Figure 3.13 shows the percent of households in each age group that was a single male or female. One can readily see that the married couple bar is the tallest in each age group except for those over age 75, where female single person households dominate. Over half of single female households were over age 65 (6.55 million), and over half of them were over age 75. Only 22% of single male households were over age 65. The largest group of married couples with children were between the ages of 25 and 44. Children all but disappear from those households over age 64. In the future, there should be more married couple households among those over age 64 as the life expectancy of men increases.

Households whose head was age 15 to 24 in 1987 made up 6% of all households, while those age 25 to 34 made up 23%. The number of people in these age groups will decline by the end of the century. Households whose head was age 35-44 made up 21% of households, those age 45-54, 15%. By the year 2000, people in these age groups will increase dramatically.

Figure 3.12 Percent of Family Types in Each Age Group

FAMILY HOUSEHOLD CHARACTERISTICS

BY AGE GROUP FOR 1988

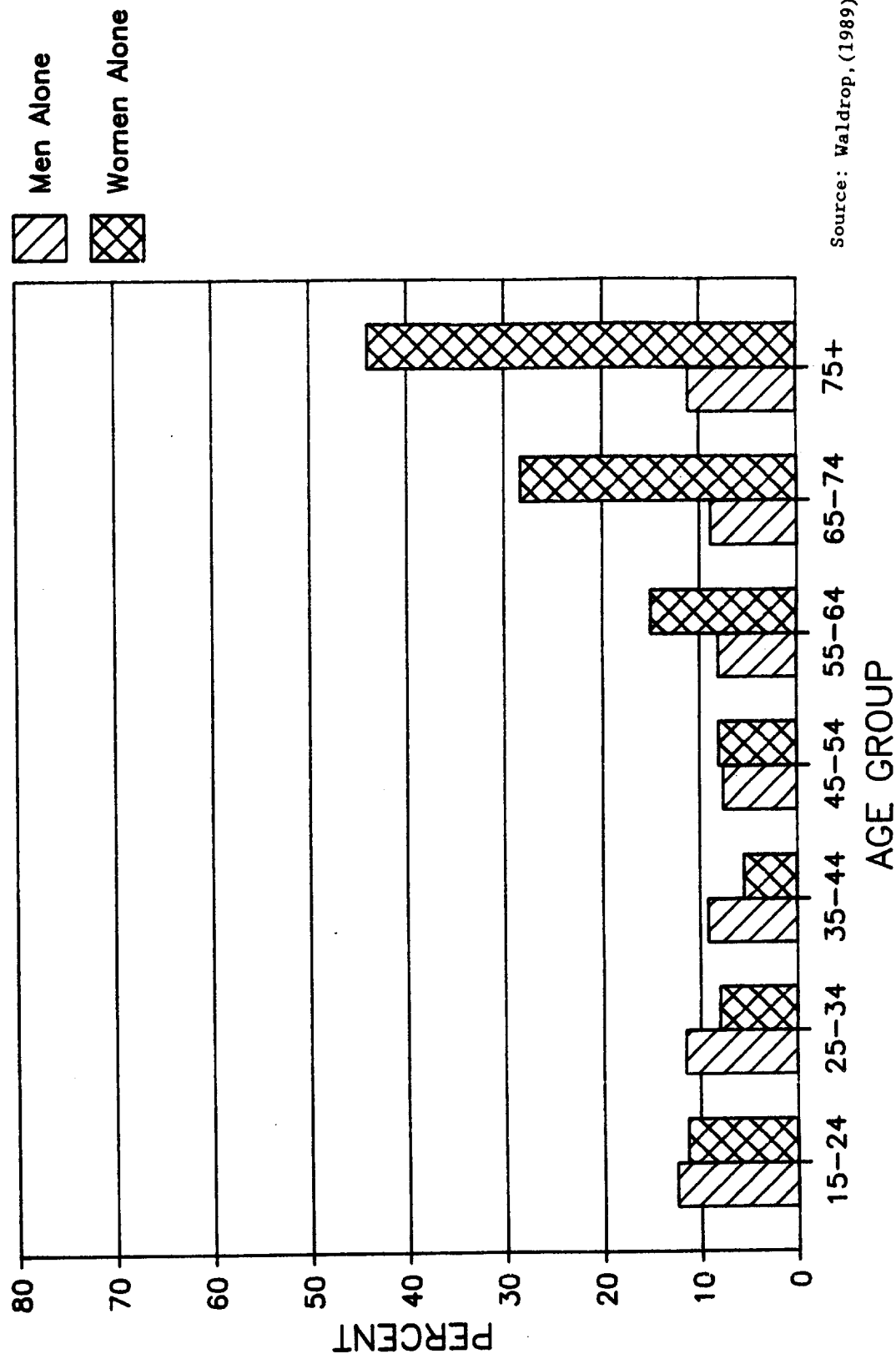


Source: Waldrop, (1989).

Figure 3.13 Percent of Single Men and Women in Each Age Group

NONFAMILY HOUSEHOLD CHARACTERISTICS

BY AGE GROUP FOR 1988



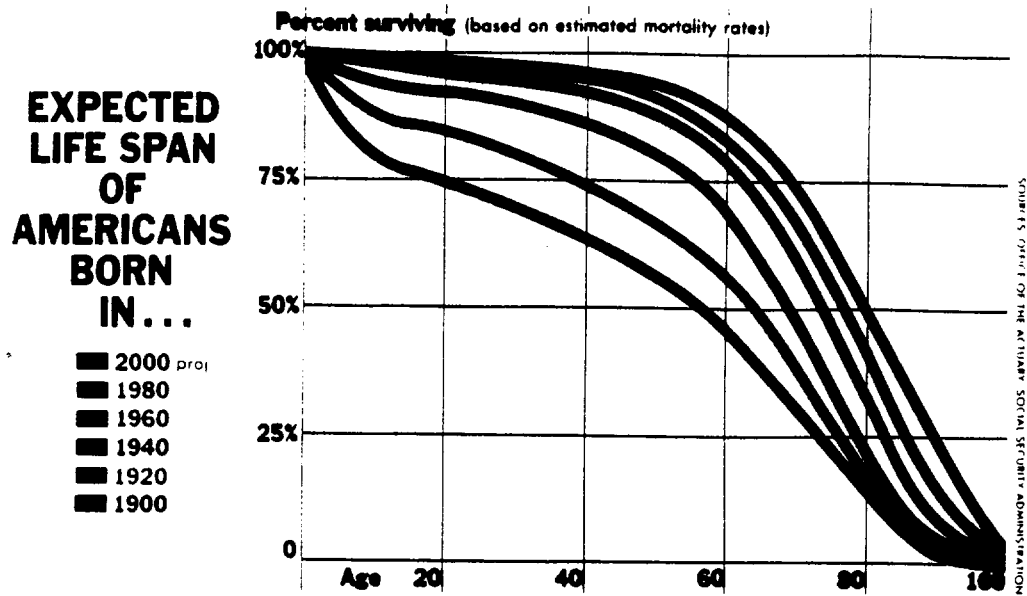
Source: Waldrop, (1989).

Those households age 55-64 made up 14% of households, and those age 65-74, 13%. Their numbers will also increase by 2000, but more dramatically by 2010. Those households whose head is over age 75 made up only 9% of households but will grow 26% by 2000 and more thereafter (Waldrop, 3/1989).

Mortality has declined dramatically for the elderly, with life expectancies increasing one and one-half times over the twentieth century. For example, in 1900 white males life expectancy was 48.23 years at birth; it was 72 years in 1986. White women's life expectancy went from 51 to 79 years in that time (USSDHHS, October 1988, p. 13). The greatest increases over the century, however, has been in the doubling of life expectancies of nonwhites to age 67.2 for males and age 75 for females in 1986. Figure 3.14 illustrates how increased life expectancies over the century will sustain a growing population of elderly people. For example, less than 12% survived to age 80 in 1900, while 50% are expected to do so by 2000.

Age affects food consumption because caloric and nutritional needs change as people age, and because tastes and choices change with income and experience. Children consume more milk products, eggs, soups, snack foods, sugar based beverages and desserts, but fewer fruits, vegetables, table spreads and meat than older people (Cronin et.al., 1982). With fewer children in the population, the demand for these types of foods should adjust accordingly. On a per capita basis, the baby boomers who are age 35-44 in 1990 spent about 2.5% less on food than the average consumer (Kiplinger, 1990). Food expenditures were up for this age groups only because there are so many of them. As they move into the elderly group they will affect food demand by the elderly after 2010. Food needs

Figure 3.14 Life Expectancy in the United States Over the Twentieth Century.



Source: O'Reilly (1989)

for the elderly, single person household are different than the food needs and preferences of younger singles who eat more, eat out more often and are more inclined to follow food fads. Households headed by persons age 55-64 spent about 10% more on food than the average household, while those over age 65 spent about 12% less. On a per capita basis though, elderly households under age 75 spend 14% more, mostly due to the small household size which requires larger food outlays per person (Lazer and Shaw, 1987).

The ageing of the population is considered one of the most important trends in the socioeconomic environment in the United States. Some argue that it is the single most important story on the demographic scene (Batson, 1987). It is one that can be identified with considerable certainty and it foretells changes in preferences and food demand. Thus, a special chapter on the elderly is included in the book where more details about their characteristics and likely preferences.

EDUCATION

The major trends in education are increasing numbers of high school and college educated people over the age of 25, along with a disparity in educational achievement between whites and nonwhites. Overall, completion of at least four year of high school increased from 24% of the population in 1940 to 76% in 1986. Among whites and Asians, the percent was about 77%; among blacks, 51%, and among Hispanics, 44%. One-fifth of adults had completed college in 1988, compared to 5% in 1940. The rate for whites was 21%, compared to 33% for Asians, 11% for blacks and 10% for Hispanics. Twenty-three percent of men and 17% of women had college degrees, but among younger people age 25-29, differences narrowed to 23%

for men and 21% for women (Minneapolis Star and Tribune, December 2, 1987; USDC, CB88-151, 1988; CB88-142, 1988; CB87-188, 1987; CB88-59, 1988).

Among teenagers age 16-17 in 1980, the highest levels of school enrollment were among the Japanese and Chinese (96%), the lowest was among the Hispanics (80%), with 89% for whites. Among the 20-24 year olds, the Chinese Americans had the highest proportion of people enrolled in school (60%); whites had 24%, blacks had 21%, and Hispanics had 18% (Batson, December 7, 1987). Education is known to be highly correlated with income, so it should be no surprise that Asians have a higher median income than other ethnic groups, including whites. The increase in the number and percent of people with high school and higher education foretells higher incomes for a larger proportion of the population. It also helps to explain the disparity in income between the uneducated and others. Table 3.1 shows the direct relationship between education and earnings in 1984. The proportion that were college graduates at that time was 15.5%. By 1986, that percent had already increased to 19.5 (USDC, Statistical Abstract, 1988, 1987).

As greater numbers of people receive more education, the ranks of the educated labor force and higher income earners grow. Their increased supply tends to put downward pressure on incomes of the educated and helps to explain part of the trend towards slower income growth, more "middle-class" unemployment, and less upward mobility for the younger generation in the past decade. Those without at least a high school education are even more vulnerable to unemployment, as greater numbers of well educated

TABLE 3.1 INCOME AND EDUCATION
(ALL U.S. PERSONS OVER AGE 18, 1984)

Persons by Education	<u>Monthly Income</u> Mean	Percent of Persons

All Persons	\$1,155	100.0
Doctorate	3,265	0.5
Professional	3,871	1.0
Master's	2,288	3.4
Bachelor's	1,841	10.6
Associate	1,346	3.6
Vocational	1,219	1.8
Some College, no degree	1,169	17.8
High School Graduate only	1,045	35.5
Not High School Graduate	693	26.0

Source: U.S. Department of Commerce, Bureau of the Census, What's it Worth, Current Population Reports, Series P-70, No.11, September, 1987, p. 7-8.

people take jobs for which they may be over trained.

As a group, black men have been dropping out of the educational process. Their enrollment in college dropped from 34% in 1976 to 26% in 1985 (USDC, CB88-151, 1988). The absolute number of black males enrolled in college declined from a high of 878,000 in 1984 to 861,000 in 1986 (USDC, Statistical Abstract, 1988, 1987). Black males with a college education represented only 3% of the whole population in 1984, and fewer have pursued that level of education since.

The disparity in education and continued immigration means that food vendors will face a persistent group of poor consumers. They will be mostly nonwhite households or single mothers and, at the extreme, the homeless. These consumers are very sensitive to price and will be purchasing lower cost food and fewer services. The regions of the country where education levels were the lowest in 1985 were the South (69% high school graduates and 18% college graduates) and non-metropolitan areas in general (69% with high school diplomas). The West, where 80% were high school graduates and 24% college graduates, and metropolitan areas, where 78% were high school graduates, will be areas with higher average incomes and a demand for food that meets upscale tastes--more convenience, more variety and more food prepared away from home (USDC, CB87-188, Dec. 2, 1987).

College graduates were 67% more likely to report dieting to loose weight (Shlosberg, 1987). They will be a large part of the market for low calorie foods. Those with more education tend to be more adventuresome in their food selections and will adopt new food varieties more quickly. They eat out more often. Education has been found to be

the most important determinant of knowledge about nutrition (Birdsall, 1972; Hinton, 1963; Hertzler, 1976; Hunt, 1976). Educated people are also better informed about food safety issues and will demand higher quality food and food service. Price will be less of a decision factor for them than food quality and diet compatibility.

INCOME TRENDS

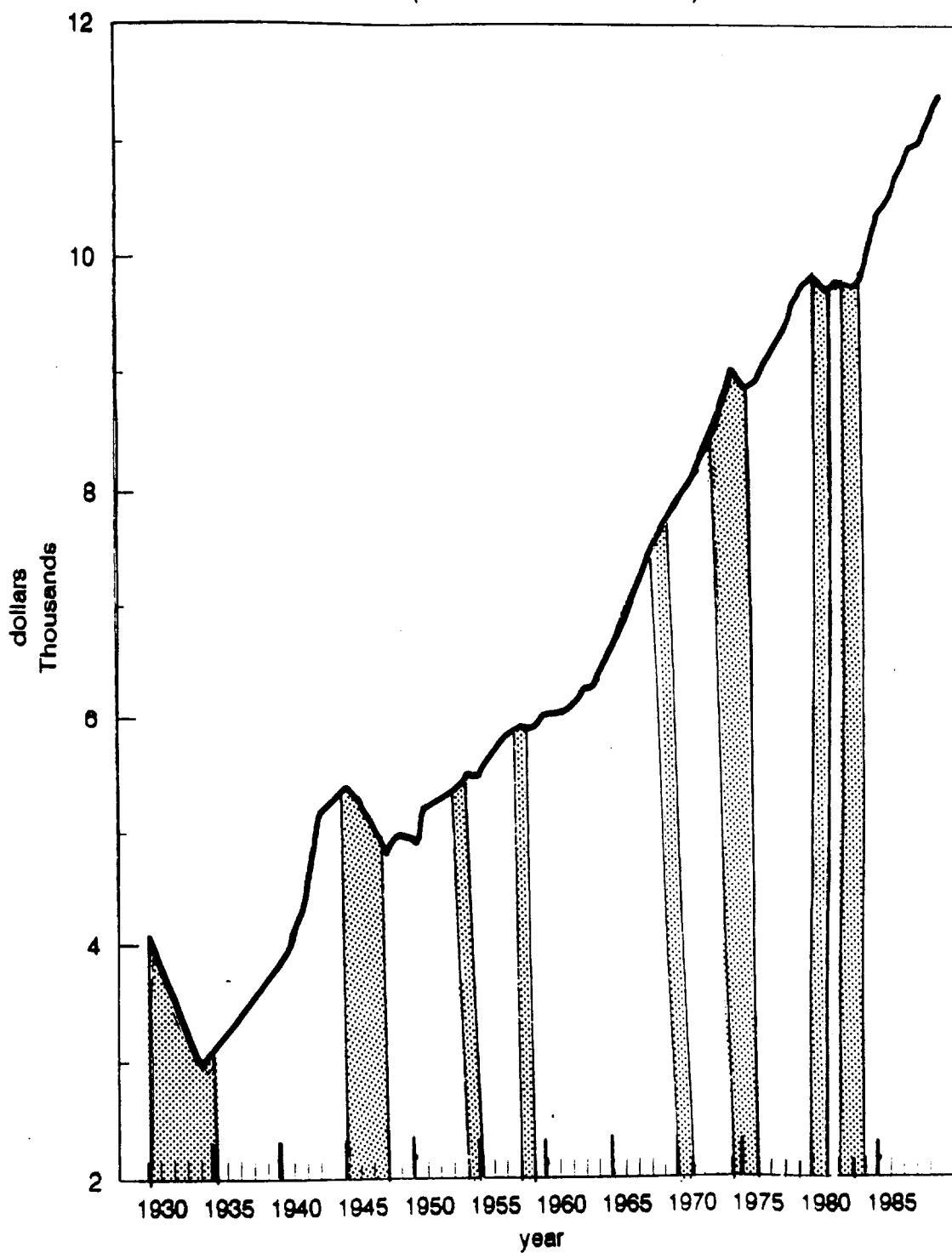
There is a popular perception that average household incomes in the United States are declining and that the rich are getting richer and the poor are getting poorer; that the large middle class, mass market is diminishing, and that an underclass of permanently unemployable persons has developed. Considerable evidence supports this perception.

Aggregate income statistics such as per capita personal disposal income, median family income and individual wage earnings reveal much the same picture--rising incomes until about 1973, and stagnation thereafter. This reversal in income growth has been called "...the major economic story of the postwar period" (Levy, 1987).

U.S. per capita disposable income (PDI) was \$15,481 in 1987. It slowed less in recent years than median family income because it is calculated by dividing total income from all sources evenly across all persons. In recent years, PDI increased in spite of low productivity because there have been more workers (earners) and fewer children (nonearners) over which to divide total income (Litan et al., 1988/89). As long as the economy grows, that is, gross national product grows faster than inflation, PDI tends to increase. Figure 3.15 shows the trend in real PDI (in 1982 dollars). One can clearly see that its growth slows

Figure 3.15

United States: Per Capita Disposable Income
1929-1988 (constant 1982 dollars)



during periods of recession, represented by the shaded areas. Although widely used as a measure of economic well being, like most aggregate measures, PDI hides as much as it reveals. To learn about the spending power of households and their relative well being, one has to look at how income is distributed across households with different characteristics.

Changes in real median family incomes increased steadily in the post-World War II period, doubling between 1947 and 1973. By 1975, this income had fallen by \$1,700 in real terms, more than recovered by 1979, only to fall again between 1980 and 1982. By 1984, it was \$46 less than it was in 1975. By 1986, it stood at only \$1,596 more than in 1970, with most of those gains coming after 1984. Figure 3.16 illustrates the trends in median income for all families and for whites and blacks. (The trend for Hispanics was similar to that of blacks, only the level was about \$2,000 higher.) It is easy to see that increases began to level out in the early 1970s. Real median income for unrelated individuals rose less rapidly over the long run, but continued to rise while family incomes fell (Levy, 1987).

Real median income does not account for the status of households or families relative to the poverty level. A Congressional Budget Office (CBO) study (1988) adjusted family incomes by dividing pretax cash income by the appropriate poverty level for the family structure to derive "adjusted family income". Plotting adjusted family income (median income as a percent of the poverty level) since 1970 reveals that non-elderly, childless families had incomes over 4 times as great as single mothers, whose adjusted family incomes have stayed around the poverty level since 1970 (Figure 3.17). Indexing adjusted family incomes so that 1970 equaled

Figure 3.16

Median Family Income: 1947-1987
(Constant 1985 dollars)

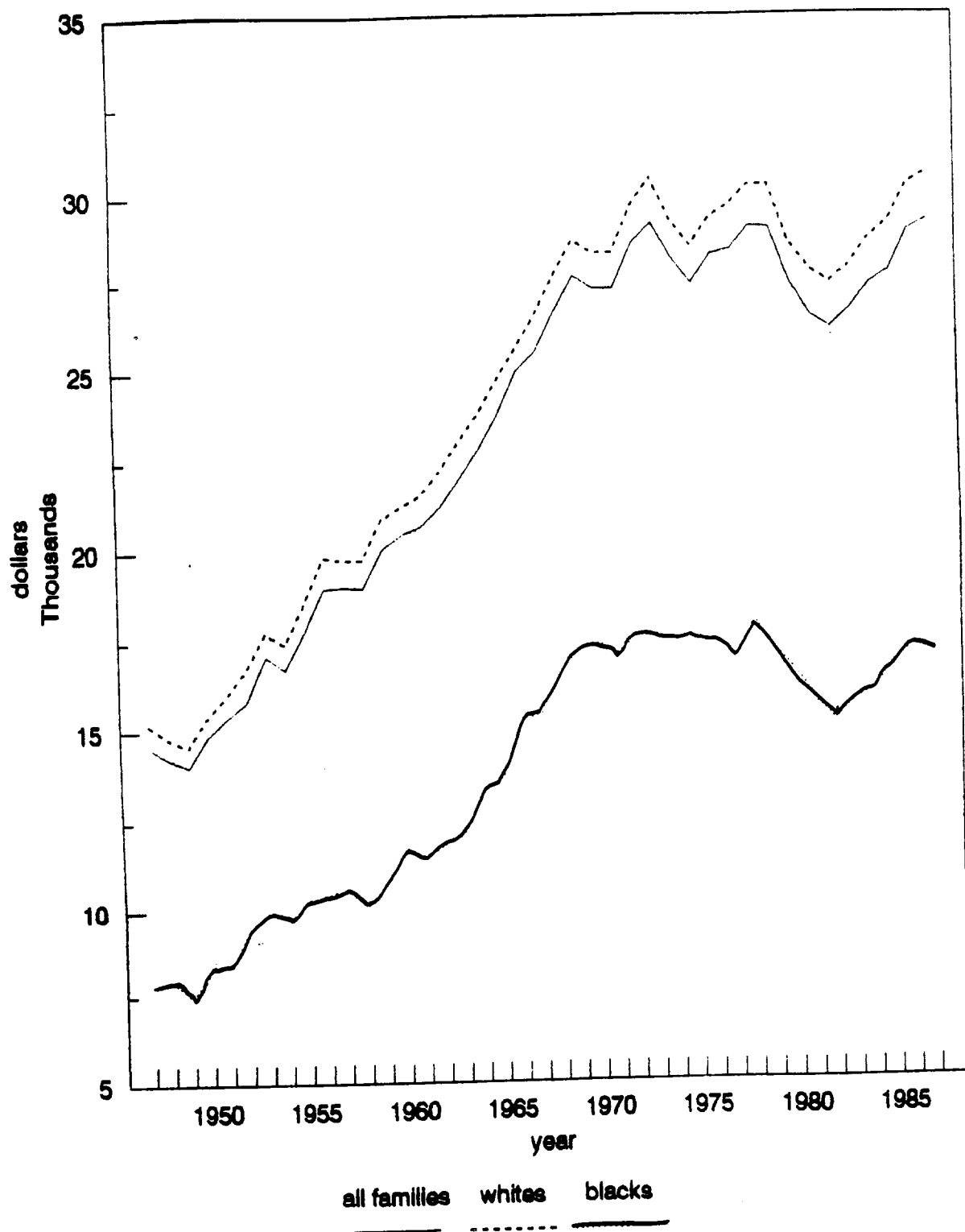
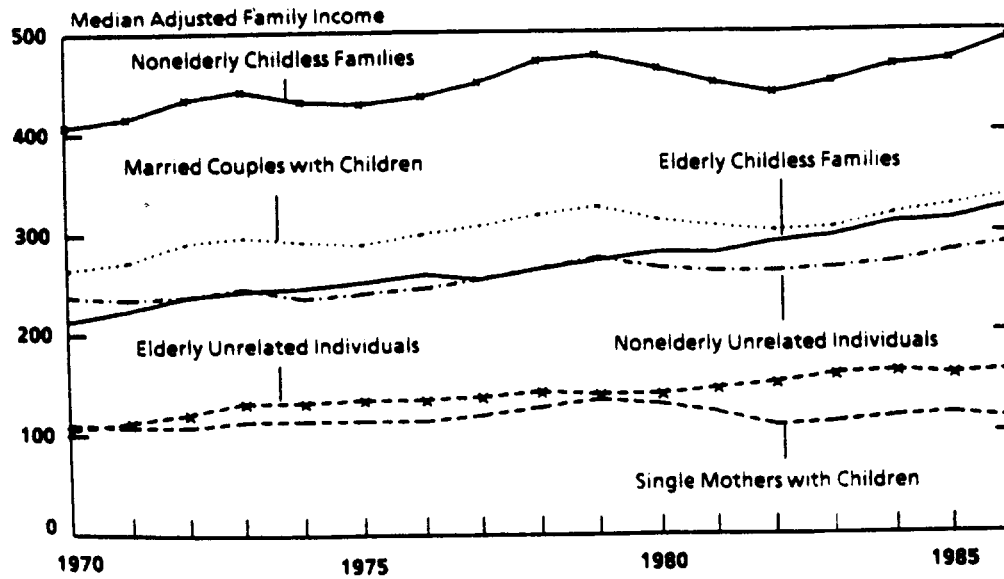


Figure 3.17
Trends in Median Adjusted Family Income by Family Type, 1970-1986

Trends in Median Adjusted Family Income, by Family Type, 1970-1986



SOURCE: Congressional Budget Office tabulations of Current Population Survey data, 1971-1987

Source: CBO, 1988, p. xviii.

100, and plotting income trends for various family types, shows that incomes of the elderly increased the most, and those of single mothers fell. Figure 3.18 shows that by 1986, cash incomes rose to 163% of the poverty threshold for the elderly, while they fell to 82% for single mothers. The relative well being of families clearly depends on the family structure and age.

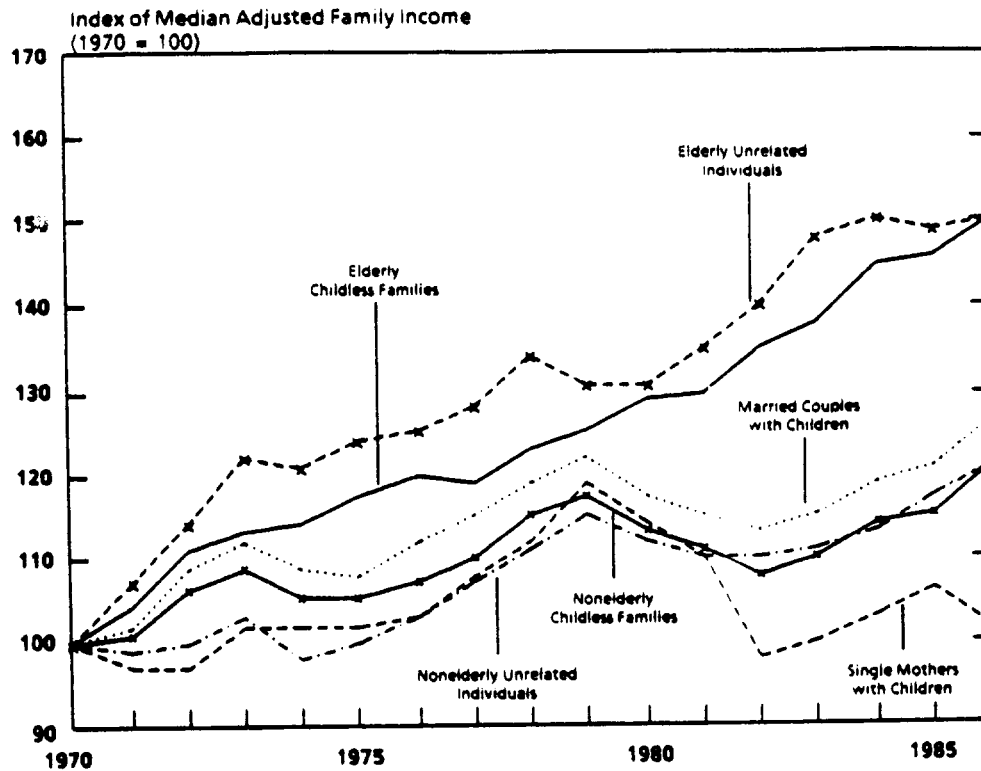
Income Distribution

The equality of income distribution across families is measured by plotting the percent of aggregate family income belonging to each cumulative decile (10% increments) of the population of families. This produces what is called a Lorenze curve. The size of the area between the Lorenze curve and the "line of equality" provides a measure of how equally income is distributed. Two times the size of that area is called the "Gini Coefficient". The closer together the two lines, the smaller the Gini Coefficient, and the more equally distributed is income. Figure 3.19 shows the Lorenze Curve for the United States distribution of family money income (from all sources) in the mid-1980s. It shows, for instance, that the lowest 20% of the families received about 5% of all family income. If income were evenly distributed, the lowest and highest 20% of families would each receive 20% of aggregate income, the Lorenze Curve would lie on top of the straight line of equality, and the Gini Coefficient would be zero.

The Gini Coefficient has changed very little, though it fell slightly between 1947 and 1969, and then rose again. This illustrates, in a modest way, how incomes tend to become more evenly distributed when general

Figure 3.18
Trends in Median Adjusted Family Income, Relative to 1970 Median Adjusted Family Income, Selected Family Types, 1970-1986.

Trends in Median Adjusted Family Income, Relative to 1970 Median Adjusted Family Income, Selected Family Types, 1970-1986

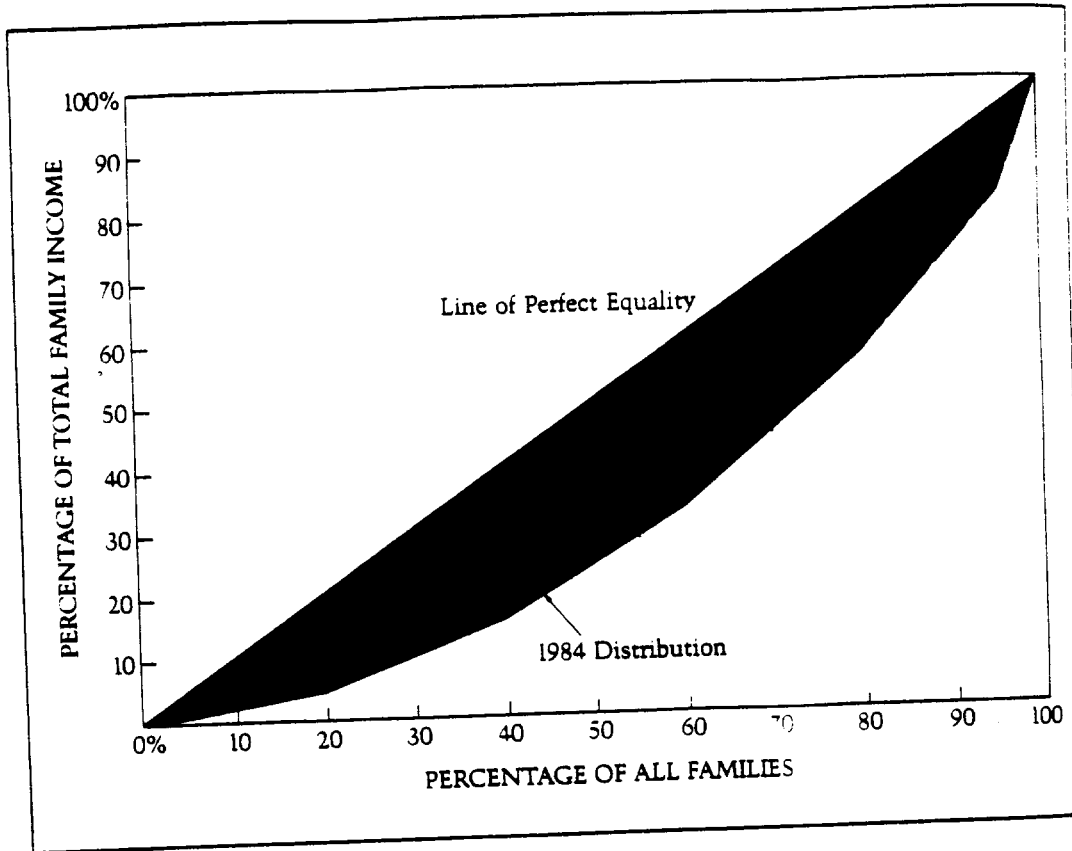


SOURCE: Congressional Budget Office tabulations of Current Population Survey data, 1971-1987.

Source: CBO, 1988, p. xix.

Figure 3.19
Lorenze Curve of Income Distribution for the United States,
1984. Twice the Shaded Area Measures the Gini Coefficient.

LORENZE CURVE



incomes are rising. As the total size of the pie increases, the size of everybody's piece increases, and redistribution from rich to poor is accomplished with little pain. As growth in the total pie decreases, redistribution is more difficult and incomes tend to become less evenly distributed. Table 3.2 shows that the poorest 20% of families received 5.6% of all family income in 1969, a year in which the richest 20% received the least, 40.6%. Income distribution was almost the same in 1984 as it was in 1947, except the richest 5% had less of the income, and those in the fourth quintile had slightly more. By 1987, the richest 5% controlled 16.9% of aggregate income (Pennar, 1989). The Gini Coefficient was .385 in 1984, up slightly from .376 in 1947, and up from .349 in 1969. This demonstrates that family incomes are becoming somewhat less equally distributed.

The last column on Table 3.2 shows that the Gini Coefficient for unrelated individuals is consistently larger than for families, but has been falling; incomes here are becoming more evenly distributed. This can be attributed largely to rising incomes of women relative to men through increased employment and rising social security payments. The level of income for unrelated individuals in each quintile is significantly lower than for families, a fact that is seen on the bottom two lines of Table 3.2. Most persons and families in the first quintile have incomes below their poverty threshold.

Using money income to measure consumer well being and income distribution, though common, has its faults. It includes government transfer payments in cash, but not in kind. Those who receive food stamps, health care or housing, tax breaks or production subsidies have

TABLE 3.2 DISTRIBUTION OF FAMILY MONEY INCOME, U.S., 1947-1984

	Percentage of All Family Income Going to					Gini Coefficient	
	1st Quintile (poorest)	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile (richest)	Richest 5% (Included in Top Quintile)	Gini Coefficient of Unrelated Individuals
1947	5.0	11.9	17.0	23.1	43.0	17.5	.376
1959	4.9	12.3	17.9	23.8	41.1	15.9	.361
1969	5.6	12.4	17.7	23.7	40.6	15.6	.349
1979	5.2	11.6	17.5	24.1	41.7	15.8	.365
1984	4.7	11.0	17.0	24.4	42.9	16.0	.385
<u>Top Income in Each Quintile, 1984, in 1989 Dollars:</u>							
Families:	\$14,849	25,812	37,453	53,862	87,070*		
Unrelated Individuals:	\$5,826	10,107	16,659	26,236	46,334*		

*Beginning of top 5%

Source: Levy, 1987, p. 14-16, 20-21

consumption power above that of their cash income. Those with large families have less spending power per head for any given level of cash income. Money income does not account for accumulated wealth which, if added to money income, produces even larger Gini Coefficients. For example, in 1984 the top 20% of households by money income standards held 75% of the assets owned by households; the top 2% held 26% of the assets (Levy, 1987).

Table 3.3 summarizes the distribution of income among households of various types in 1987. In spite of many changes in the relative size of age groups and their relative incomes, it shows that middle-age households (age 35-54) still had the highest median incomes, the greatest percent who made over \$50,000 per year and the smallest percent who made under \$10,000 per year. The income profile for those under age 24 and over age 64 looks very similar. The big difference is in their ownership of assets. American households had a median net worth of \$44,000 in 1986, and an average of \$145,000 (Avery and Kennickell, 1989). Median net worth rises steadily until age 65, when it is drawn down slightly. The elderly, a growing segment of the population, own a large proportion of our collective net worth. While only 12% of households under the age of 35 had a net worth over \$50,000, 56% of households over age 65 had a net worth of \$50,000 or more. Over half of the median net worth of the elderly was in interest bearing accounts, the median value of which was \$31,399 in 1987 (USDC, Statistical Abstract-1989, 1988).

The distribution of earnings as opposed to income has been much less evenly distributed historically and growing more so. The Gini Coefficient for earnings across all families was .415 in 1949 and .460 in 1984 (Levy,

TABLE 3.3 MEDIAN HOUSEHOLD INCOME AND NET WORTH
BY AGE, RACE AND HOUSEHOLD SIZE
UNITED STATES, 1987

	Median Income	Percent of Group with		Percent Below Poverty	Median Net Worth
		Below \$10,000	Median Income: Above \$50,000		
Age of Householder					
15-24	\$16,204	30.4	4.5	15.9	{ \$5,764
25-34	26,923	13.5	13.9	10.7	
35-44	34,929	10.4	26.4	{ 9.1	
45-54	37,250	10.5	33.1		
55-64	27,538	17.4	22.0		
>64	14,334	34.4	6.4	12.2	73,664
All	25,986	18.4	18.5	13.5	60,266
					32,667
Race of Householder					
White	\$27,427	16.1	19.7	10.5	\$39,135
Black	15,475	35.6	7.2	33.1	3,397
Hispanic	19,305	25.9	7.9	28.2	4,913
Persons per Household					
1	\$12,544	40.8	3.7	--	
2	26,481	13.2	17.4	8.7	
3	32,348	10.9	24.6	10.5	
4	36,805	8.0	30.2	10.3	
5	35,825	9.5	28.6	14.8	
6	33,871	12.5	26.6	22.0	
>6	30,800	13.4	26.4	29.5	

Source: U.S. Department of Labor, Bureau of the Census, Statistical Abstract of the United States-1989, 109th Edition, Washington, D.C.: U.S. Government Printing Office, 1988.

1987). This increase is attributed largely to a growth in the number of families that had no earners at all, up from 5.4% in 1949 to 15.1% in 1984. The number of "no earner" families increases as retirement age decreases and more families of all ages are headed by women. Since the income distribution of all families remained fairly steady (Table 3.2), unearned income (government transfers, pensions, interest and dividends) had to have replaced earnings as a source of spending power for many American households. In fact, the proportion of total personal income from wages and salaries fell from 66% to 59% between 1970 and 1986, while transfer payments rose from 10% to 15%, and interest and dividends rose from 11% to 16% (Council of Economic Advisors, 1987, p. 272-273).

On balance, aggregate income figures do not reveal many dramatic changes regarding income distribution. They even seem to defy common observations and attitudes about the demise of the middle class. However, shifts in income and earnings among different household types--ages, size, gender and ethnic groups--lends credence to popular perceptions. For example, Table 3.4 shows that the proportion of households in the second and third quintiles that were elderly increased considerably between 1949 and 1984, while their representation among the poor declined. Husband-wife families age 35-64 grew as a proportion of the upper two quintiles at the expense of younger families. Families headed by females under age 64 (about half of such households) made up over twice the proportion of poor families in 1984 as they did in 1949. Related to these movements among household types, is labor force participation. Notice that in the lowest quintile, the percent of families with no earners was 44% in 1984. No earner families more than doubled since 1949 in all

TABLE 3.4 COMPOSITION OF THE FAMILY INCOME DISTRIBUTION
BY TYPE OF FAMILY, 1949 AND 1984

Family Type	1st Quintile (poorest)		2nd Quintile		3rd Quintile		4th Quintile		5th Quintile (richest)	
	1949	1984	1949	1984	1949	1984	1949	1984	1949	1984
Head Aged 65 or Over (Male and Female)	25%	24%	11%	23%	7%	11%	6%	7%	8%	7%
Husband-Wife Family Aged 35-64	42	25	48	36	61	47	58	60	71	74
Husband-Wife Family Aged 34 or Under	18	16	33	25	28	32	32	30	17	15
Female Head Aged 64 or Under	15	35	8	16	4	10	4	3	4	4
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Proportion of All Families in Quintile with Working Wife	11%	15%	15%	30%	16%	49%	26%	57%	26%	67%
Proportion of All Families with No Working Member	25%	44%	8%	16%	2%	8%	1%	4%	1%	3%

SOURCE: Levy, 1987, p. 200-201.

quintiles, at the same time as wives entered the labor force in unprecedented numbers.

Is the Middle Class Declining?

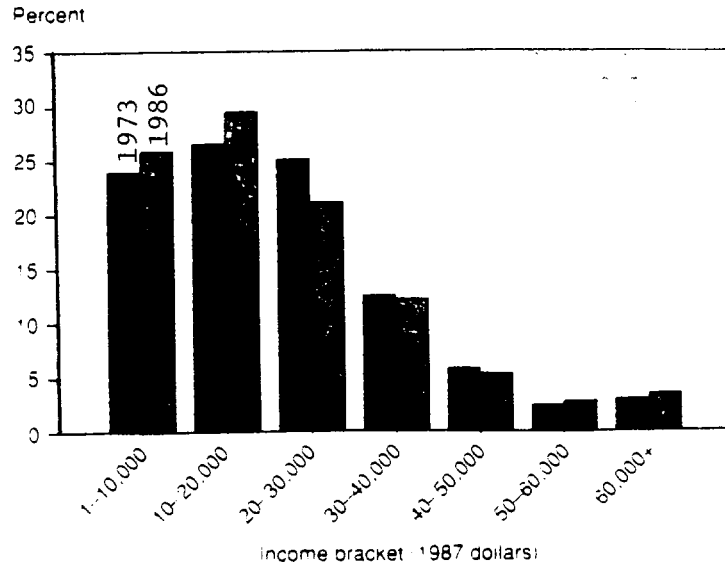
A picture of offsetting income trends is beginning to develop. A series of bar graphs from Levy (1988) confirms the popular observation that more people and families are entering the low and high income brackets. Figure 3.20 shows that the proportion of employed individuals, men and women, who earned less than \$20,000 and over \$50,000, increased between 1973 and 1986. The percent who earned middle incomes declined. The percent of families with incomes between \$10,000 and \$50,000 declined, while the percent of female headed households under age 64 increased in all income groups under \$60,000. Interpretation of the changes in family income distribution illustrated here are two fold. One is the optimistic view. Since a smaller proportion of households have middle level incomes, and the percent with \$20,000 or less was a constant 31%, more families are moving up into higher income brackets, leaving fewer in the middle income ranges.

The pessimistic view is that the spending power of middle level incomes has declined relative to the period before 1973. It is true that the rate of increase in real income for people in the middle rose very slowly compared to their expectations. They were not able to increase their consumption as rapidly since 1973 as their parents and mentors did before them. Young people and those with low and middle incomes must spend a larger portion of their income on necessities like food, shelter and energy. During the 1970s, the price of necessities rose 15% faster

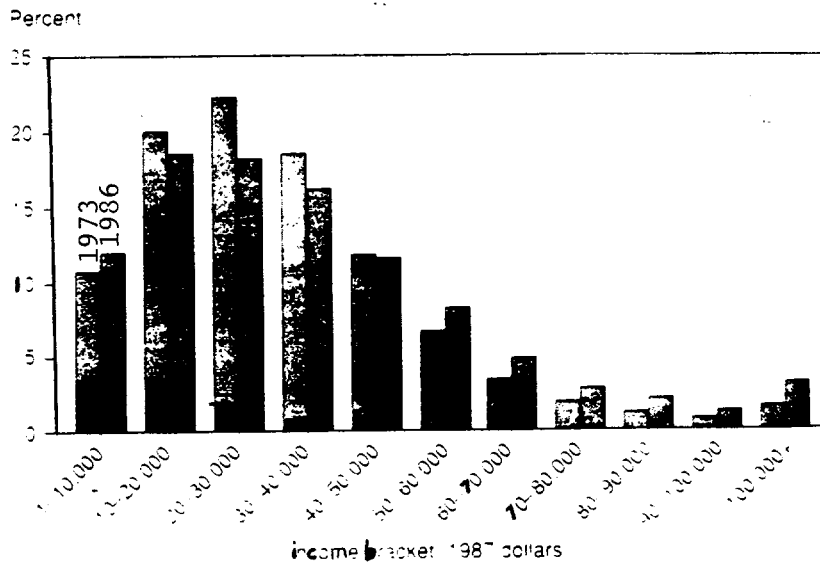
Figure 3.20

Distribution of Earnings by Individual Men and Women and the Distribution of Income by Families, 1973, 1986.

Earnings Distribution of Men and Women, 1973, 1986.
Men and women, aged 25-55, who worked more than one hour a year



Distribution of Families by Income, 1973, 1986.



Source: Levy, 1987, pp. 121 and 135.

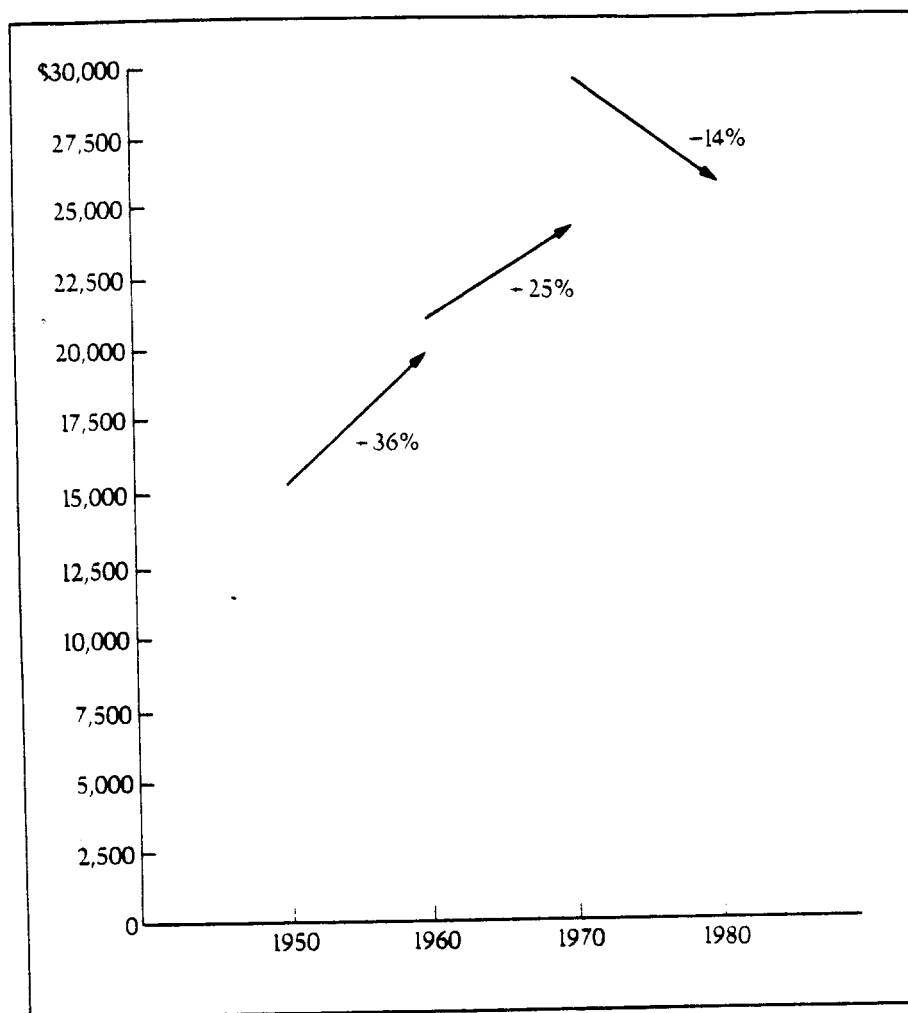
than the overall consumer price index, resulting in a greater decline in real incomes among the middle income and poorer households (Browning, 1981). Adjustments in their spending patterns show that they had to increase expenditures for necessities by about \$1000 per year (in 1984 dollars) between 1973 and 1981. Consumer expenditures that decreased in order to accommodate these necessities were for furniture, clothes, personal care and charitable contributions. A large number of young households buoyed the restaurant business and gave the impression that money for food away from home was plentiful, but average household expenditures on food away from home went up only \$47 per year (in constant 1984 dollars) between 1973 and 1981 (Levy & Michel, 1986).

Besides a fall in real income growth, the demise of several middle income (blue-collar and agriculture) jobs, the type held by many males with little education, led to thousands of displaced workers whose family incomes declined as a result. The types of jobs that increased were lower paying service jobs--largely filled by women, immigrants and young baby boomers--and white collar jobs that required education or training that middle age, middle income, blue collar workers did not have. Of the 14 million new jobs created between 1973 and 1980, one in five paid less than \$7,400 per year in 1986 dollars. Of the 12 million jobs created since 1980, two in five paid only slightly more than the poverty rate for a 2 person household under age 65 in 1986 (\$7,372). One-third of the net new year-around, full-time jobs created since 1978 paid a wage below the poverty level of \$11,203 for a family of four (Bluestone and Harrison, 1987). Apparently, being employed is no guarantee that one can live above the poverty threshold.

Although the share of new year-around, full-time jobs that paid high wages rose from 3.6 to 9.2% between 1973 and 1978, and has remained that high, there has recently been a rash of displaced white collar workers from middle management positions. This is expected to increase in the 1990s as American companies pare down their costs to become competitive in world markets. In 1986, there were over 5.1 million displaced workers; half came from manufacturing industries who closed their plants. Lay offs in the wholesale-retail trades and financial services (mostly white collar jobs) accounted for another 27% of the displaced workers, only two-thirds of whom were reemployed. The latter group may find it easier to relocate or retrain, but the opportunities at the top are shrinking relative to the supply of qualified labor. Fifteen percent of displaced workers dropped out of the labor market altogether (USDC, Statistical Abstract-1988, 1987). The despair felt by this segment of the population and the fear it instills in all workers, comes as much from a decline in opportunity for advancement as from a decline in relative income. The change in income growth relative to expectation is dramatically illustrated in Figure 3.21, which shows the average gain in men's income between the ages of 40 and 50 in roughly the past three decades. Income growth over a lifetime has slowed considerably for men.

The composition of families with the lowest 20% of income has also changed dramatically. This has widespread implications for government policy, national productivity and consumer demand of all sorts. The percent of families with incomes below \$20,000, comprised of female heads, increased from 23 to 31% between 1973 and 1986 (Levy, 1988). The result is that over one-third of all the nation's children live in homes where

Figure 3.21
Average Income Gain for Men Passing from Age 40 to Age 50 in the United States since 1950. (in 1984 dollars)



Source: Levy, 1987, p. 81.

income is under \$20,000. Twenty-one percent of children also live in families with incomes over \$50,000. Levy (1988) argues that the popular picture of a declining middle class is not especially applicable for all families taken together, but it is appropriate for families with children. If one juxtaposes this information against the fertility rates of families with different income and education levels, and thinks about the development of human capital, there seems little choice but for high income households to finance the health and education of children (and parents) in low income households, whether this be through government tax dollars or private contributions. Public food programs to ensure adequate nutrition will continue to be as important as ever.

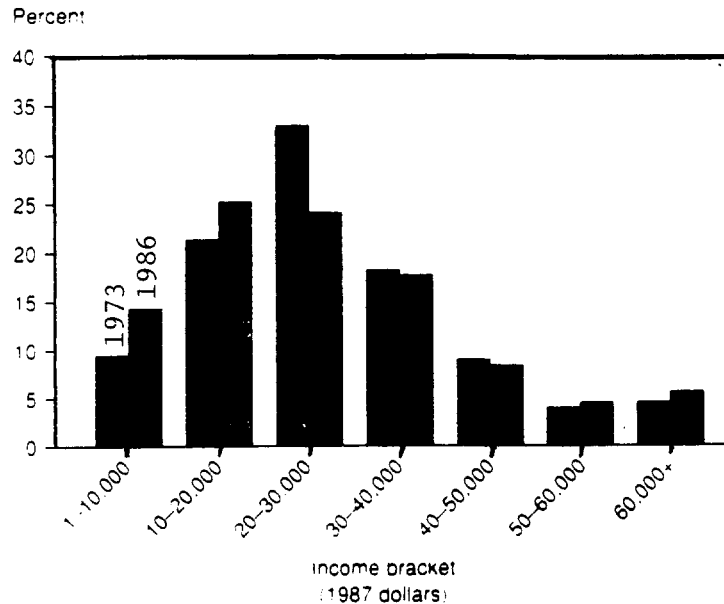
The separate distribution of earnings of men and women, as illustrated on Figure 3.22, also reinforces the impression that, at least for men, middle level incomes are declining. The top half shows that the percent of men earning under \$20,000 and over \$50,000 increased between 1973 and 1986. The bottom half shows that the percent of women earning low incomes declined, but over two-thirds of them had incomes under \$20,000 in both time periods. The relative change in women's and men's earnings and wages reflects major changes in the labor force, and facilitates major changes in family structure, and in how family members make purchase decisions. Sociologists and psychologists say that it changes the power balance in household decisions. It also changes the relative value of members' time and how it is allocated to household and other tasks.

Wives entering the labor force did not, however, decrease the equality of family incomes very much, if at all. Wives increased their

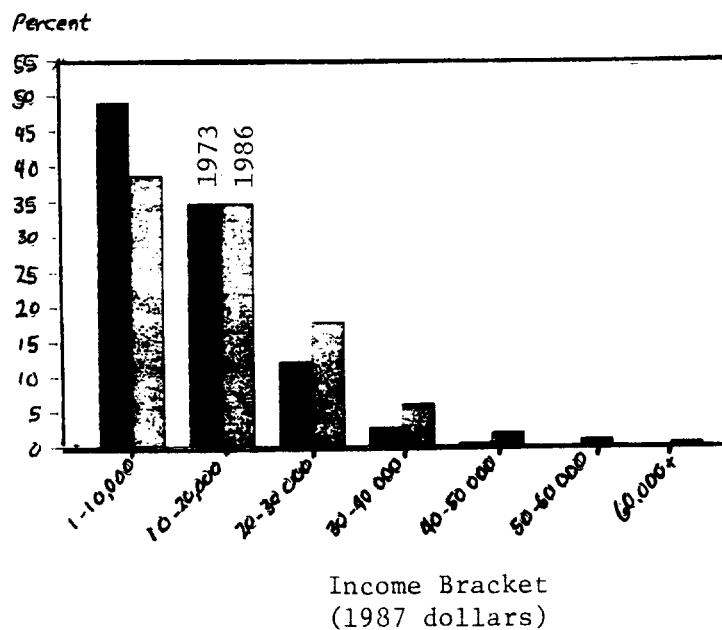
Figure 3.22

Distribution of Earnings by Prime-age men and Prime-age women who worked at least one hour a year. 1973, 1986.

Earnings Distribution of Prime-Age Men. 1973, 1986.
Men aged 25-55 who worked more than one hour a year.



Earnings Distribution of Prime-Age Women. 1973, 1986.
Women aged 25-55 who worked at least one hour a year.



Source: Levy, 1987, pp. 122-123

labor force participation in all income quintiles, and the earnings of wives whose husbands had low incomes (less than \$15,000) raised family incomes relatively more than the earnings of wives whose husbands earned more. For families where the husband earned less than \$15,000, the wife's average earnings (whether she worked or not) was 40% of her husband's income, while the average wife's earnings was only 15% of her husband's if he earned over \$35,000 per year in 1984 (Levy, 1987). In 1987, wives who worked full-time, all year still earned only 57% as much as their husbands on average (CB89-118, 1989). In 1983, one-fifth of working wives earned more than their husbands. Of those who did, 51% had no children under age 18, 24% had four or more years of college, and 31% had executive or professional jobs. Seventy-two percent worked full-time, year-around, compared to 43% of all employed wives (CB86-71, 1986).

Dual earner households at all levels of income have improved their spending power relative to single earner families. For example, the real median family income in 1969 (in 1985 dollars) for married couples where the wife was employed was \$25,062; \$20,051 where she was not. By 1987, that income increased 58% to \$39,516 (constant 1985 dollars) if she was employed, and by 47% to \$29,393 if she was not. Between 1981 and 1987, wives' earnings grew 23%, compared to 12% for husbands'. The proportion of wives working full time increased from 44 to 50%. By 1987, the annual incomes of families with two full time working spouses was \$49,030, compared to \$31,010 where only the husband worked (USDC, CB89-118, 1989; USDC, Statistical Abstract-1989, 1988).

Table 3.5 compares the number of men and women workers, and their incomes by age and education in 1986, and changes since 1973. Since this

TABLE 3.5 EMPLOYED MEN AND WOMEN BY NUMBERS,
EARNINGS AND HOURS
BY AGE AND EDUCATION
(PERCENT CHANGE FROM 1973 TO 1986)

Age and Education	Number of Workers, 1986 (Millions)	Percent of Change in Group Size	Mean Annual 1986 Earnings in 1987 Dollars	Percent Change in Annual Earnings	Percent Change in Wages*	Percent Change in Annual Hrs Worked
<i>Men, 25-34</i>						
4 yrs. high school	8.4	58	19,387	-21	-16	-6
4 yrs. college	3.3	83	28,792	1	-1	2
<i>Men, 35-44</i>						
4 yrs. high school	5.4	38	24,992	-12	-7	-5
4 yrs. college	2.5	127	37,728	-11	-7	-4
<i>Men, 45-55</i>						
4 yrs. high school	4.4	2	27,027	-8	-2	-6
4 yrs. college	1.4	27	42,696	-4	...	-4
<i>Women, 25-34</i>						
4 yrs. high school	6.5	85	11,182	16	3	13
4 yrs. college	2.9	164	18,924	30	12	16
<i>Women, 35-44</i>						
4 yrs. high school	5.5	96	12,570	18	11	6
4 yrs. college	1.7	240	20,050	38	12	23
<i>Women, 45-55</i>						
4 yrs. high school	4.2	40	13,199	10	7	3
4 yrs. college	.8	100	19,503	6	11	5

*Annual earnings for those who worked year-around, full-time.

Source: Levy, 1988, p. 125-151.

includes all men and women who worked at all in those years, the ratio of women's to men's earnings, even for young people with 4 years of college, was only .65. For college educated women and men who worked year around, full-time, the ratio was .73. This table does not include people with more than four years of education, so highly paid professional jobs are not represented. With those caveats, one can still see that the percentage change in wages, earnings and hours are all negative for all men except the youngest men with four years of college. The changes are all positive for women.

Increasing working hours is the surest way to increase annual earnings. Notice that for women age 35-44 with four years of college, a 23% increase in hours worked, resulted in a 38% increase in annual earnings and a 12% increase in wages. Men in that age and education group decreased annual hours by 4% and lost 11% in annual earnings and 7% in wages.

As a larger and larger proportion of the labor force is comprised of women, average wages and earnings will grow more slowly. When most employable women have entered the labor force and, ultimately, work full-time, the chance for families to increase their real future incomes by increasing total hours of labor will slow. Therefore, future growth in family incomes will depend more on the growth in productivity and wages than on the ability of individuals to pool incomes. Increased education and training for higher paying jobs will be the only way "up" for individuals and families in the future. A report titled "The Forgotten Half", issued in 1988 by the W. T. Grant Foundation, concluded that "during his or her lifetime, a college graduate can expect to earn double

the money of a high school graduate and more than triple that of a high school drop-out" (Berg, 1989).

Income by Region

How income is distributed by region affects markets for food and other goods. The South has typically had the lowest incomes. In 1987, its median household income was still the lowest (\$23,719). The highest median household income was in the West (\$27,914), but the percent of total aggregate personal income attributed to each region was highest in the South (30.9) and lowest in the West (21.5) (USDC, Statistical Abstract-1989, 1988). Former large income disparities between regions have largely disappeared. The larger disparities are now between rural and urban areas and between cities and suburbs. Nonfarm family incomes were 19% greater than farm family incomes in 1987, but that gap was even greater in 1970 at 50%. The size of the gap between city and suburban family incomes was 11% in favor of those in the suburbs in 1959, growing to 24% by 1983. This was mainly due to different types of family structures. One quarter of central city families were headed by women, whose incomes were relatively low. To what extent gentrification of the central cities will decrease the urban-suburban gap is not known, but the implications for food marketing are fairly clear. Lower cost food and fewer services will be in demand where incomes are relatively low, particularly in rural areas and central cities. The market niches for high variety, high quality, and high service will be in the suburbs and in pockets of cities recaptured by well paid households.

The primary effects of income on food consumption and the role it

plays in estimating the demand for various types of food are discussed in detail in the chapter on food economics. However, in an affluent society, the effects of rising incomes on food consumption patterns is intimately tied to the effect of labor force participation on the value of time.

LABOR FORCE PARTICIPATION

"A very significant portion - perhaps the overwhelming majority - of all waking hours of all mankind throughout all of history have been associated with getting enough food. All individuals of a group shared this need, andthe strategy for getting enough food ...affected every other aspect of the group's culture" (Gibson, 1981).

Compared to the quest for adequate food described above, Americans treat food acquisition rather casually. But, perhaps, we have changed less than we think. Americans purchase virtually all of their food, requiring money which they obtain through employment. Maintaining the spending power of the household so that food consumption can continue to be treated as a matter of fact, rather than a matter of quest, has required more intensive labor force participation by household members and increased investment in food and agricultural technology. It has changed our culture and the way we approach daily life.

The greatest changes in labor force over the past two decades have been an increase in the number and percent of married women and mothers working outside the home, and a decrease in the percent of working men. Also, there has been a decrease in the proportion of households that have only one worker in the labor force, along side an increase in the percent of households that have two or more full time workers or no workers at all (Table 3.4).

Future changes in the labor force will center around a decreasing percent of white male workers. In 1947, two-thirds of the labor force was comprised of white males (Levy, 1987). Figure 3.23 shows that in 1985, 47% of the labor force was white males, and 36% was white females. Future growth in the labor force will come primarily from an increasing number of females and immigrants. Between now and 2000, three-fifths of the new entrants into the labor force will be nonwhite, half of them Hispanic (Riche, February 1988).

Between 1940 and 1986, the percent of women in the labor force doubled--from 27.4 to 55.4%. For men, the percentages went from 79% to 76%. The percent of married women in the labor force increased over 3 times, while the percent of single, widowed or divorced women increased by a factor of 1.4 (USDC, Statistical Abstract-1988, 1987). Tables 3.6 and 3.7 illustrate men's and women's labor force participation by age and marital status since 1960. There was a steady drop in the percent of married men in the labor force in all age groups. The drop was small for those ages 20-44, but after age 45, there was a noticeable decline, especially among married men.

For married women the story was reversed. There was a steady climb in the percent of women in the labor force except for singles over age 44, and widowed/divorced women over age 65 (Table 3.7). The latter may be partially explained by rising incomes among the elderly through indexed social security payments, pensions and other financial investments, that allow older people to retire earlier.

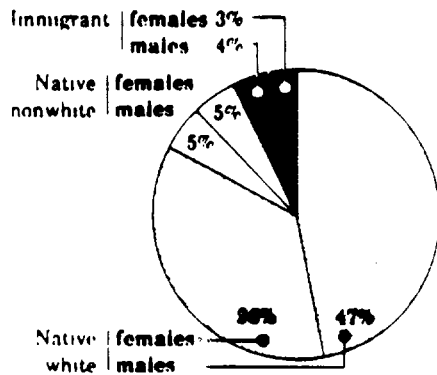
The labor force participation rates of men and women are converging. Those of single men and women are very close at all ages below 65. Almost

Figure 3.23

The Workplace Diversifies

Who made up the U.S. labor force in 1985...

(In percent)

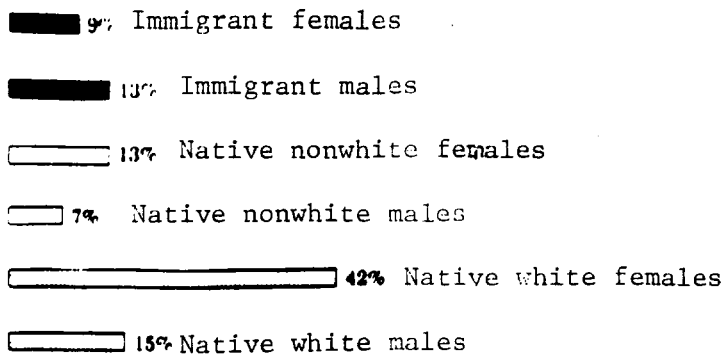


*net additions

Source: Hudson Institute

...And who will account for its growth through the year 2000*

(In percent)



NOTE: Percentages have been rounded

Source: Solomon (1985).

70% of married women in prime childbearing years (age 20-44) are in the labor force (USDC, Statistical Abstract-1988, 1987).

In spite of their maternal roles, over half of mothers with children under age 6, and over 70% of those with children between the ages of 6 and 17 were in the labor force in 1987. The development of this phenomenon is illustrated in Table 3.8. Those with children under age 6 increased their labor force participation over 5 fold since 1950. Half of the married mothers with an infant return to work within the first year after birth. Over 62% of those with a five year old are in the labor force (USDC, Statistical Abstract-1988, 1987).

It is difficult to sort out the full-time, full-year employees from the full-time, part-year employees. The Census Bureau defines full-time workers as those who work 34 or more hours a week for at least one week a year. Part-time workers are those who work less than 34 hours per week. Being in the labor force full time does not necessarily imply that one works all year. Only part of the picture on the extent of labor force participation can be obtained by looking at the data of full and part-time workers. Over the last decade, the percent of all full-time workers who were female increased from 35% to 39%, with a concomitant decrease in the percent of males who worked full time. Three-fourths of women who work, work full time (USDC, Statistical Abstract-1988, 1987). In 1985, mothers most likely to work full time were those who were divorced (63%), followed by married mothers (39%). About 80% of the married mothers who worked full time also worked a full year. Overall, 62% of working women worked 50-52 weeks, while 18% worked 27-49 weeks, and 20% worked less than half a year (Stipp, 1988). Single mothers who had never been married were the

least likely to work full time (29%), mostly because they lacked the education and skills or child care support to do so (Noble, 1986; Rich 1986). Even though all employed women were not in the work place full-time, full-year, their increased participation in the labor force has dramatically altered the lifestyle, income, consumption needs, spending habits and use of time in the American household.

In addition to their primary job away from home, 5.8% of employed men and 4.6% of employed women report holding multiple jobs, spending an average of 13 hours a week on a second job. Those most likely to hold a second job were between the ages of 25 and 44; they worked over 53 hours a week outside the home (USDC, Statistical Abstract-1988, 1987). On average, however, employed married men worked 9.5 hours a day and employed married women worked 6.5 hours per week in the labor force, for a ratio of women's to men's hours of .68--a ratio that is strikingly similar to the ratio of women's to men's earnings (Berk, 1985).

Meanwhile, over the past three decades, time spent in household tasks declined for women (27 to 19.5 hours per week). and increased for men (4.6 to 9.8 hours per week). The ratio of women's to men's time in household tasks has declined from 6:1 in 1965 to 2:1 in 1985, according to a New York Times nationwide survey (St. Paul Pioneer Press, 1988). Using aggregate rather than a survey data, Fuchs (1986) found that women's household time fell less (from 32 to 28 hours per week between 1959 and 1983), and men's household time increased less (from 11.5 to 12 hours per week), than the above survey suggests.

Adding household time to the labor force time, married, employed men worked between 57 and 64 hours per week and married, employed women

**TABLE 3.6 MEN'S LABOR FORCE PARTICIPATION RATE BY AGE GROUP
AND MARITAL STATUS, 1960-1988 (PERCENT)**

	16-19	20-24	25-44	45-64	Over 65
1960					
Married	96.0	97.5	98.5	93.0	37.1
Single	34.4	76.6	85.3	74.4	24.3
Widowed/Divorced	N/A	88.6	83.0	78.1	18.2
1970					
Married	95.5	95.0	98.2	91.6	30.2
Single	49.0	69.0	84.2	66.6	21.0
Widowed/Divorced	N/A	73.2	77.6	75.9	16.5
1980					
Married	97.3	96.8	97.3	84.8	20.4
Single	56.8	79.6	83.6	65.2	20.0
Widowed/Divorced	N/A	92.9	92.4	69.9	13.0
1988					
Married	95.3	95.7	96.8	82.8	17.5
Single	49.7	80.1	86.9	65.7	20.7
Widowed/Divorced	N/A	93.2	90.3	71.2	11.6

Source: U.S. Statistical Abstract 1988, 1989

**TABLE 3.7 WOMEN'S LABOR FORCE PARTICIPATION RATES
BY AGE GROUP AND MARITAL STATUS,
1960-1988 (PERCENT)**

	16-19	20-24	25-44	45-64	Over 65
1960					
Married	25.3	30.0	40.0	34.2	5.9
Single	25.3	73.4	79.8	75.1	21.6
Widowed/Divorced	37.3	54.6	61.5	58.3	11.6
1970					
Married	36.0	47.4	43.3	44.1	7.9
Single	39.5	71.1	77.0	67.8	17.6
Widowed/Divorced	46.5	59.7	66.4	60.7	9.9
1980					
Married	47.7	60.5	60.9	46.9	7.2
Single	49.0	72.2	81.4	62.8	12.0
Widowed/Divorced	51.0	68.5	76.8	59.5	8.6
1988					
Married	46.8	65.9	70.7	52.7	7.4
Single	48.7	74.8	81.6	65.2	10.9
Widowed/Divorced	64.5	67.7	78.9	62.6	8.2

Source: Bureau of Labor Statistics, 1986
U.S. Statistical Abstract 1988, 1989

**TABLE 3.8 LABOR FORCE PARTICIPATION RATES OF MARRIED WOMEN,
HUSBAND PRESENT, BY PRESENCE AND AGE
OF CHILDREN, 1950-1988**

Year	Total	With no children under 18	<u>With children under 18 yrs:</u>		
			Total	6-17incl.	Under 6
1950	23.8	30.3	18.4	28.3	11.9
1955	27.7	32.7	24.0	34.7	16.2
1960	30.5	34.7	27.6	39.0	18.6
1965	34.7	38.3	32.2	42.7	23.3
1970	40.8	42.2	39.7	49.2	30.3
1975	44.4	43.8	44.9	52.2	36.7
1980	50.1	46.0	54.1	61.7	45.1
1988	56.8	48.9	65.6	73.0	56.8

Source: Bureau of Labor Statistics, 1986
U.S. Statistical Abstract 1988, 1989.

Note:

Children are defined as never-married sons and daughters, stepchildren and adopted children. Excluded are other related children such as grandchildren, nieces, nephews and cousins, and unrelated children.

worked between 49.5 and 61 hours per week on average. The ratio of women's to men's total work time was between .85 and .95. Clearly, there is wide variation around these average numbers, with parents of small children working considerably more hours than those without children.

This gives rise to conflicting stories about whether Americans are gaining or losing leisure time and whether or not they are better off or more stressed than ever. The fact is, the large number of families between the ages of 25 and 50 have more working members than ever. Families with two working spouses and small children have time demands unlike those that were ever known when women stayed at home and/or extended families were available to take care of children and run errands. By 1988, 60% of married couples had both spouses employed, and two-thirds of them had children at home. As the baby boom generation moves through ages 25 to 50, many families will not feel like their leisure time is increasing.

While 17.8 million married couple families with children and working mothers (27% of all families and 19% of all households) cope with extraordinary time demands, others are gaining leisure time (Townsend & Riche, 1987). Factors that lead to an increase in leisure time are a decrease in the number of children in households, longer portions of lives spent unmarried and earlier retirements. Between 1965 and 1975, young men and elderly men and women gained significant hours of leisure, as did middle-aged women (Robinson, 1989). Leisure, as defined here, is time spent after taking care of all work tasks and personal grooming and sleeping. It includes time spent in school, taking part in clubs and organizations, sports, recreational activities, hobbies, TV, reading, and

visiting with friends and relatives.

On average, women gained 5 hours of leisure per day since 1965, leaving them with 39 hours per week by 1985. Men had 40 hours per week in both time periods. Men and women age 36-50 had the least leisure time, about 34.5 hours per week. On average, married men and women each had 37 hours, decreasing to 31 if there was a child under age five in the home. Single men and women had the most leisure time, 48 and 43 hours each. Men without children had 12 more leisure hours per week than those with preschoolers; women without children had 7 hours more (Robinson, 1989).

In almost all cases in the past three decades, women had less leisure time than men. One exception was in recent times, when there were preschool children present, or women were age 36-50--those ages when children are most likely to be present. In these two circumstances, women's leisure was slightly greater than for men, indicating that some child care activities shifted to fathers. It may also reflect the greater number of hours men of this age spend in the labor force. The greatest gains in leisure were by the elderly (22% or 8-9 hours per week) and, on average, for women (15% or 5.5 hours per week) (Robinson, 1989). The former is due to earlier retirement, and the latter is due to fewer children, shifting some child care to fathers, remaining single more of one's life, and finding more efficient ways to conduct household tasks.

Since 1982, the proportion of women aged 18 to 44 who had no children remained 38% (USDC, CB86-100). The proportion among 25-29 year old women increased from 31% in 1976, to 41% in 1988. The proportion among women age 30-34 increased from 16% to 25%. Women most likely to be child-free were white, college educated and in professional occupations (Wall Street

Journal, February 4, 1988). Among married couples where both spouses had a college education, 70% are dual-earner households. Thirty-six percent of these highly-educated, dual-earners had no children in 1987. This compares to 58% of all married couples who are dual-earners, only 20% of whom had no children (USCD, CB88-102, 1988). Among women age 30 to 39 who earned over \$25,000 a year in 1983, half had no children in their homes (Fuchs).

Increased education and incomes have increased the value of women's time and have resulted in fewer children and new ways to substitute capital for labor in housework. Only by decreasing their hours in the household have women been able to keep their total work time within the constraints of a 24 hour day and meet normal sleep and personal care requirements. Although household tasks have not shifted significantly from wives to husbands, looking for ways to be more efficient and cut down on household time has become a quest for men and women alike.

One of the primary ways of cutting household time has been to spend less time in the kitchen (Burros, 1988). Microwave ovens, found in 81% of homes with income over \$35,000 (in 1988) have helped. So have convenience foods, take out food, fast food, and home delivered food. Since 86% of employed women still do most of the cooking and 91% do the shopping, they are looking for ways to feed themselves and their families quickly. Most spend less than a half hour preparing an evening meal; 20% spend less than 15 minutes (Burros, 1988).

Increased labor force participation on the part of women has instigated massive changes in the way consumers shop, eat and cook. Even though they demand healthy and nutritious food, convenience is a powerful

need. One study shows that, among married couples under age 55 with two earners, almost 40% of food expenditures were for food away from home (restaurant or take out food), while among married couples where the wife was not in the labor force, only 24% to 30% of food expenditures were for food away from home (Waldrop, August 1989). Since total food expenditures were quite similar between the two groups, the higher incomes and scarcer time of the dual earners lead them to select more food that is prepared somewhere besides in the home.

Earlier research showed, however, that a greater proportion of increased earnings went for food away from home when the wife worked part time, than if she worked full time (Kinsey, 1983). This indicates that the time constraints on full-time working wives leads them to either purchase less expensive food away from home (fast food or take out food) or to eat out less often.

If, however, leisure continues to increase, the demand for restaurant meals could increase. It was reportedly the number one choice for leisure time activities in 1989 (Cox, 1989). Another recent survey found that those who spent the most time eating meals away from home were older people, college graduates, unmarried people, and those with incomes between \$25,000 and \$35,000 (McAdams, 1987). This is all consistent with those groups who have the most leisure time. The elderly are experiencing more leisure time and their numbers are growing rapidly. Rather than looking for ways to be more efficient, they are seeking activities that have a more leisurely pace. Restaurant eating is one such activity. Those whose incomes are not particularly high have lower valued time, and can eat more frequently and leisurely in restaurants. College graduates,

on average, marry later and have fewer children. They need less time for household tasks. They can eat out more often because they have both more time and more money than others.

Labor force participation determines the productivity of individual households, businesses, government services, and the nation. It also determines household income and its distribution. It therefore determines the spending power and life style of households and, to a large extent, the types of food they eat. More employed people means more spending power. Though rising incomes do not mean a proportional increase in food expenditures, they do increase the demand for variety, high quality and convenience. As households become affluent, they pay less attention to food prices and more attention to quality characteristics. They become more concerned about the subtleties of their diet than the quantity of food.

In contrast, there were 2.5 million families with cash incomes of less than \$5000 in 1988. Their average family size was 3 persons, half were black or Hispanic and two-thirds were headed by a female (Wall Street Journal, November 17, 1989). They need inexpensive, nutritious food sauces and increasingly rely on government programs for income and food.

Diversity is the key to food marketing. Although everyone needs food to eat, ideas about what type of food is good, healthy, or affordable vary all over the map. New tastes are discovered as people move about, new technology allows new forms of food to be delivered, new information turns good food into bad food (and visa versa), and a variety of lifestyles calls for an increasing potpourri of food presentation and delivery.

FINAL COMMENTS

Foretelling future changes in food consumption may be as much an art as a science, but Smallwood and Blaylock (1986) applied sound scientific methods to projecting the combined effects of demographic changes and real income growth on future changes in food expenditures. Projections for changes involving different rates of population, and income growth can be found in their publication, but those reproduced here are for the middle level of population growth, and a 1% growth rate in real income. This combination was chosen, even though since about 1940, real incomes grew around 2% per year. Since 1980, declining productivity and wage stagnation resulted in real income growth of closer to 1%, and this stagnation seems to persist. For example, after tax household income increased an average of 1.3% per year between 1980 and 1986; median household pretax income increased at a rate of 0.06%, and median family income declined at a rate of 1.4% (USDC, Statistical Abstract-1988, 1989). Future income growth is expected to slow or stagnate and will probably be closer to 1%. It will become less important relative to demographic changes.

Table 3.9 shows Smallwood and Blaylock's (1986) projected per capita and total national changes in real food expenditures for various food categories in 2010 as a percent of expenditures in 1980. The projected increases are greatest for food away from home (16.5%), alcoholic beverages (14.7%), fish (18.4%), and fruits and vegetables (13 and 14%). At the national level, expenditures projected to increase more than 30% for specific foodstuffs are for pork, fish, fresh fruits, fresh and processed vegetables and alcoholic beverages. Although income effects

TABLE 3.9 PROJECTED INCREASE IN REAL FOOD EXPENDITURES DUE TO THE
COMBINED DEMOGRAPHIC AND INCOME CHANGES
BETWEEN 1980 AND 2010^a

	<u>Per Capita Effect</u>	<u>National Effect</u>
Total Food	113.7	132.1
Food away from home	116.5	135.0
Food at home	110.8	128.9
Meat, poultry, fish and eggs	112.5	131.1
Beef	111.2	129.2
Pork	112.3	131.3
Other meat	106.9	124.3
Poultry	110.7	129.1
Fish	118.4	137.4
Eggs	105.3	122.4
Cereals and bakery products	107.5	124.7
Dairy products	106.0	122.9
Milk and cream	101.5	117.2
Cheese	111.0	129.2
Other dairy products	109.6	126.8
Fruits	113.0	131.2
Fresh	113.8	132.2
Processed	111.7	129.4
Vegetables	114.2	133.1
Fresh	115.1	134.5
Processed	112.0	130.2
Sugars and sweeteners	107.2	123.8
Nonalcoholic beverages	107.4	125.3
Fats and oils	110.4	128.4
Butter	111.6	128.9
Margarine	109.4	127.4
Other	108.9	126.6
Miscellaneous	108.7	125.6
Alcoholic Beverages	114.7	133.2

^a The "middle-series" population projection of the Census Bureau, which projected a U.S. population of 283 million by 2010, was used. An average annual growth rate of 1 percent was assumed for real income growth. In addition to population and income growth, the projections reflect the effect of changes in the age, regional, and social distribution of the population.

SOURCE: Blaylock and Smallwood, 1986, pp. 36 and 41.

tend to dominate these results, they are a good indication of expenditures for one type of food relative to another. For example, expenditure on dairy products is projected to increase less than most other foods, except for cheese, and expenditures for fresh produce will outstrip that on processed fruits and vegetables. The study also points out that the most important demographic changes are a decline in the rate of population growth and aging. Increases in the elderly would increase expenditures on all types of food except food away from home and alcoholic beverages. Regional impacts were minor, but they would increase expenditures on fresh fruits and vegetables, fats and oils, and miscellaneous foods, while decreasing expenditures on meats, cereals and butter. Ethnic impacts were also minor, but tended to decrease overall food expenditures. Income effects were projected to increase expenditures on all foodstuffs except eggs. The largest expenditure increases due to income were for fish, cheese and alcoholic beverages.

Demographic trends will have an increasingly important impact on food markets. Most of them can be predicted accurately for 10 to 20 years hence. It is almost impossible to be accurate farther into the future, since the past does not always predict the future very well. It is also difficult with demographics, as well as economics, to separate irreversible trends from cyclical and episodic events. Among the phenomena discussed in this paper, there are some of each. Which are truly trends? With great trepidation, three are identified as trends likely to last for the next 20 years: 1) increasing average levels of education, 2) increasing ethnic diversity and 3) continued slow rates of population growth.

Other phenomena such as the increasing percentage of women in the labor market, a population shift to the Southwest, declining mortality, increased immigration, increased divorce rates and a decline in the number of children among college educated people will likely stabilize at different levels than in the past, but their rates of change must slow. When a saturation level is reached, an apparent trend must either level out or reverse. This does not mean that permanent changes in food markets are not taking place. Rather, that changes will continue to take place and that catching the episodes and identifying the trends will continue to be critical for successful food marketing.

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