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Domestic Consumption Patterns and the Midwest Economy

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DOMESTIC CONSUMPTION PATTERNS & THE MIDWEST ECONOMY

Paul Ballew and Robert Schnorbus

During the last twenty years the economic restructuring in the core midwestern manufacturing sector has severed the historical pattern of economic development for this sector and caused substantial economic hardship.[1] Domestic and external factors, including oil shocks, technological change, and increased foreign competition, have reshaped industry and prompted reorganization. The auto, steel and other durable goods industries have all faced downsizing, relocation of facilities, reduced wages and profits, and a general economic malaise in comparison to the remainder of the nation. As these industries have been transformed, the Midwest has undergone a substantial economic adjustment.

The transformation of the Midwest economy is certainly not over, and in some regards it has accelerated in recent years in response to domestically and internationally pressures. Further complicating this period of transition have been substantial changes affecting underlying factors in the domestic market. As these changes impact the region, the transformation is likely to take on a new air of urgency. Specifically, many social and economic developments of the last few decades may be permanently altering traditional domestic consumption patterns and will particularly impact durable goods industries. Principal areas of concern include significant societal structural changes, including an aging population and growing inequities in terms of income distribution, which may result in a weakening of the domestic sales environment especially for durable goods. While the transformation of markets, organizations and production processes is continuing, significant changes in the domestic sales environment caused by structural alterations of consumption behavior complicates the future performance of these industries and the Midwest economy.[2] This Working Paper analyzes the factors influencing

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[1]Traditional analysis of durable goods sales assumes that short term sales are disproportionately impacted by cyclical factors including income and employment growth and consumer sentiment. Long term sales trends are linked to a variety of demographical factors--long-term income growth, household formation rates and other considerations--and technological factors.

[2]It should not be excluded from any analysis that this transition period has produce positive elements for the region and industry alike. In fact, the restructuring of the last twenty years may

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consumption patterns in the U.S. and the potential impact of these changes on the Midwest economy, beginning with a review of the factors that influence consumer behavior.

Domestic Consumption Patterns

A wide variety of economic and social factors influence consumption of durable goods. Among the most prevalent of these influences are family or household formation rates, income growth, appreciation of financial and nonfinancial assets, prices of durable and non-durable goods, and factors associated with the goods themselves--product quality and potential product life.[3] A portion of the demand for a particular good is due to growth in real income. For example, a typical consumption function assumes that consumption is directly linked to real income, (specifically after tax income), where consumer expenditures are dependent on changes in real after tax income (disposable income). Finally, changes in net worth or financial appreciation can also change consumer spending behavior--through affecting decisions in terms of current and future purchasing power.

Income growth, asset appreciation (wealth effects) and changes in the rate of growth impact the overall market. These changes in the overall economy will obviously dictate the setting of demand for specific products and services. In large measure, gains in income and wealth combine with other changes in demand (long-term demographical shifts), and price or quality changes, (which are product specific), to influence consumption patterns for particular products. Examples of these changes abound. For instance, in the 1970s and 1980s consumption patterns for durable goods were significantly influenced by modest income growth and more importantly the rapid family and household formation rates (see figure 1). With the Baby Boomers coming of age, this change resulted in a boost to the durable and construction industries, especially in non-recessionary years. The sales rate for vehicles, homes and other big ticket items all experienced historical highs during these periods (on an annual basis.)[4] Consequently, a large

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prove invaluable as future adjustment to potentially slow domestic growth and fast-paced external growth occurs.

[3]Note that household formation rate is increasingly used due to the proliferation of non-traditional family units.

[4]It should be noted that the boost in sales from this population surge partially offset the significant restructuring costs being incurred by these core industries. Also demographical shifts must be supported by income growth, or the "means", for demand to be effective.

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portion of these additional sales can be attributed to the rapid increase in the consumer base during the period, which was at least partially supported by current and expected future gains in income. In the simplest terms, the Baby Boomers came of age, demanded housing, vehicles and other items (and believed they would have the income growth to pay for them.)

Another example of factors influencing demand for products can be illustrated by appliance sales, which have been impacted by both a boost in households and an offsetting drag from significant quality gains and increases in the product life expectancy. These quality improvements are reduce sales, unless something new and improved takes the market by storm. Obviously, in the case of appliances these developments in the 1980s impacted the market in different ways. A boom, which might have been expected due to the rapid surge in household units, was tempered by an offset due to a significantly lower replacement rate. Many products and industries are impacted in similar ways--changes in the factors influencing consumption both stimulating and depressing sales growth. What is important for the industry is the direction and magnitude of these factors and how it responds.

Logically, future consumption patterns will also be influenced by diverse factors that influence consumer behavior. For instance, product quality improvements have and will lengthen the life of products and, therefore, may prompt delays in replacement purchases.[5] Or, significant price increases for some products relative to income gains--autos or housing, for instance---may negatively impact consumption of these items due to lack of affordability. In combination with product improvements, these price increases may provide the justification for delays in purchases. Conversely, stronger economic activity and income gains, different distribution patterns in terms of income, and/or demographical shifts in terms of aging may prompt mini-booms for many industries.

In the future, perhaps the most significant changes in the macroeconomic environment will be demographical shifts. The most significant in terms of current consumption patterns relate to both income growth and distribution. Longer term, these trends may be further exaggerated by a rapidly aging population with a smaller replacement population.[6] The potential impact of these

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[5]One offset to this extend life expectancy involves product breakthroughs through design enhancements or technological breakthroughs.

[6]It should be noted that immigration growth and an increase in birth rates have partially offset the limited population growth in the last few decades. However, the effects of these changes did

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changes in income growth, distribution and demographical shifts are overwhelming and can either swamp or intensify other economic, social and product developmental changes. Unfortunately, this assessment should not assume that the direction of these changes is positive. The trends referenced may proved to be substantial depressants on economic activity, specifically consumption growth. The question for policymakers and industry alike is whether or not future shifts in consumption patterns based on demographical changes represents merely a potential risk or a likely reality.

Income Distribution Raises Significant Questions

One of the potentially most significant influences on future consumption patterns is income distribution. Of particular current concern are the overwhelming structural changes in societal relationships which have intensified during the last few decades and added to the income and wealth stratification. This view has been articulated in the popular media as a call to arms in terms of social policy, by stressing that the "richer are getting richer, and the poor are getting poorer." This argument, as indicated in figure 2, appears valid on the surface. The measurement of aggregate income received for various income groups indicates that the upper tiers in society have increased their share of total income over the last ten years. The view is also substantiated by several measures of both income gains and distribution (see figure 3).[7] The Gini coefficient for the U.S. (a measurement of income stratification) has increased substantial since the mid-s. The movement has been very pronounced since the 1970s, and has continued to accelerated during the last few decades. From a social policy stand-point our data review has prompted consideration of policy actions in an attempt to redress a situation that is socially and economically unacceptable.

Yet, the increasing concentration of income involves much more than just a superficial discussion of government policy and the merit of supply-side economics. Distributional issues also raise poignant questions regarding future consumer behavior, especially with regards to big ticket items. If a larger and larger portion of the population is less able to purchase these items due to stagnation regression in the standard of living, than the implications for certain sectors is

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not entirely offset the aging of the population, at least not initially.

[7]See Haslag and Taylor, 1993.

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staggering. "Effective" demand is based on both a willingness and ability to buy. The question of ability to buy is extremely pertinent in this context.

Further investigation of income distribution questions has revealed that much of the concern over growing stratification does not involve the traditional views of policies favoring the rich, (i.e. "trickle down economics"). Instead, as indicated in figure 4, many of the questions concerning increased stratification in the U.S. involve structural changes on the part of U.S. households. As the figure illustrates, the principle trends are the proliferation of non-traditional households into single parent and single person units. These household entities are socially and economically less well off and are increasingly burdened with disadvantages that lead to a regression in development and improvement in well being. Due to the sheer enlargement of these groups in terms of total and share of population, the income numbers for the U.S. are increasingly confusing.[8] On the upside the growth of two wage earners distorts the growth of so called "wealthy" units. On the downside, the proliferation of non-traditional units is a drag on income levels for "poorer" units.

The explosion of single parents and single persons has resulted in income data that are increasingly skewed by the growth of non-traditionally household units and the fact that on average single parent families are less well off then other families. Furthermore, the social and economic status of non-traditional family units has slipped appreciably in relative terms during the last two decades. For instance, single parent families on average experienced little or no income growth during the 1970s and 1980s--a principal factor contributing to the anemic rise in median income levels. In fact, single parent families experienced a decline in income (in median terms) for the entire 20 year period (with most of these declines in the 1980s). The median income level of male headed families actually saw a reduction in income levels, while female headed units experienced very slight gains (although from an extremely low base.)

The fact that single parents and single persons were growing in number relative to other family units is a major contributor to the distortions in the data noted above. Specifically, as these groups increase in number, both median and mean income are depressed. Furthermore, with an increasing number of relatively poor socio-economic groups, the median, (once again a central

[8]One important gauge of the changes which have occurred in the U.S. is the measurement of two parent households as a percentage of total households. In 1970 77% of all households were two parent households, by 1990 the level had fallen to 55%. (In 1950 the level was a staggering 90%.)

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tendency point), will reflect this factor to a greater extent than the mean. And although, the gap between the median and mean does reflect changes in income distribution, the literal interpretation that the "rich got richer, and the poor got poorer" more accurately reflects distortions in the data that can easily lead to misinterpretation.

A cursory review of the data indicates that the decades of the 1970s and 1980s saw continued rapid increases in single parent households. As indicated by figure 5, the number of single parent families exploded from 6.7 million households in 1970 to over 14 million in 1990. This doubling of single parent families contrasts with the fact that the total number of families grew by only 23% in these two decades, and resulted in single parent families becoming 1 of every 6 family units in the country! Furthermore, the increase in single parent families was even greater in African-American families, where by 1990 over half of all family units were headed by a single parent. A large portion of this growth represents the continued growth of female headed families. Female headed families, for instance, constitute over 43% of all African American families.

The primary concern of this analysis is focused on the economic conditions and level of income earned or received by these units and what this change in family composition means in terms of measurement of income growth and distribution. Unfortunately, on average, single parent families are materially less well off than other family units. For instance, in 1990 single parent households had median family income levels less than 65% of total household average income. Furthermore, as noted, relative to other family units single parent families have lost ground over the last two decades.[9]

In female headed families the trend is even more severe than in other families, with almost half of all female headed units reporting annual income levels below $15,000 a year. On average, by 1990 female headed families had a median income level of approximately 47% of median

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[9]The principal causes of this anemic income growth are complex. However, on average single parent families, in terms of the head of household, have lower educational attainment levels and other barriers to effective external employment. Additionally, a disproportionate number of single parent families receive government assistance. This assistance level in relationship to income growth and/or the government targeted poverty level has been receding. In Michigan, for instance, AFDC maximum payments as a percentage of the federal poverty threshold fell throughout the 1980s to a ratio of 75%. A trend which is also occurring in other states. Average monthly payments during this period went up by 6%, while the CPI increased by almost 30%.

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family income. This reflects an erosion from 1970 when the ratio was almost 59%. With regards to two parent families the ratio by 1990 was approximately 42% of their median income. And in comparison to dual income earning families, this ratio was 36% (down from 42% in 1970.)

In the aggregate, the statistical information assembled over the last two decades verifies that real income growth was relatively weak throughout the twenty year period (1970-90). However, once again a broad overview of the information overlooks the stronger growth in the 1980s relative to the 1970s and more importantly significant deviations between family units. The conclusion that income growth was very weak during the period overlooks other issues that show the lack of income gains stem in large part from the variance in growth between societal segments. The factors that cause these differences are multi-faceted and can not be solely attributed to weak economic development or one specific set of discriminatory policies.

Further complicating any analysis of family income trends is the fact that single parent families have an income distribution diametrically opposite that of traditional family units. Almost 30% of single parent households have income levels less than $10,000 a year and almost 45% have income levels below $15,000 a year. Female headed families have experienced even greater hardships with a median income level of only $17,000 a year and almost 40% of all families listed below the official poverty line. Two parent families reflect the opposite concentration, with over 30% of all units earning more than $50,000 a year and over half of all families earning above $35,000 a year.

From the perspective of net worth, distribution of wealth appears similar to that of incomes. In two parent families almost 55% have a household net worth in excess of $50,000 and over 33% of two parent units have a stated net worth in excess of $100,000. In single parent families the distribution is the exact opposite, with almost half possessing a net worth of less than $10,000 and over 40% having a net worth of less than $5,000.

Distributional differences and changes over time are also important, especially considering the data from the 1980s. For instance, in terms of distribution of wealth, according to the Survey of Consumer Finances, during the 1980s the mean real net worth increased 23%, while median real net worth only increased by 11%. This difference implies faster growth for family units above the median relative to other families and, therefore, an increased concentration of wealth. However, breaking down family composition again illustrates some of the problems with this

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information. For instance, unmarried family units with children actually experienced a decline in net worth. With the explosion of these family units in total and as a percentage of family units, any interpretation of the data is being skewed by the decline of a segment below the median as well as a segment above the median.[10]

Evidence of this "losing ground" during the 1970s and 1980s is also reflected in the number of family units below the poverty line. The specter of poverty and all of its associated problems unfortunately are concentrated in single parent units. Single parent families represent over 60% of all families with children below the poverty level. The number of married couples with children below the poverty level has remained constant since 1970. However, during this time the number of single parents with children below the poverty level has doubled. This growth has logically paralleled the rapid emergence of single parent families.[11]

Noting that these structural changes account for a large portion of the income stratification does not remove the concern over future consumption patterns being influenced by income distributional and family structural questions. In fact, if anything, the nature of these structural changes intensifies the concerns over consumption patterns due to the more complex dilemma of breaking the cycle of poverty. The sense of urgency is even greater, due to the rapid expansion of non-traditional households. By 1990 a staggering 45% of all households were either single persons or single parents. Because economic hardship is reinforced by social, cultural and environmental factors, resolution of these problems does not appear probable in the near future. Additionally, the increasing concentration of larger segments of the population within these social units raises the spectrum of the erosion of quality of life and further constraints on policy initiatives. Breaking the back of poverty in this environment will certainly entail non-traditional approaches. Unfortunately, a cycle of regression tends to reinforce the economic and social constraints for large segments.

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[10]Additionally, it should be noted that married families experienced the largest increase in terms of net worth in the 1980s. And with regards to family income levels, the most significant increases in terms of mean net worth occurred in the family income ranges of $20,000 to $30,000 and $30,000 to 40,000 per year. The increase in terms of mean net worth for both of these segments was 30% or greater. These two income classifications reflect 40% of all family units. (See January 1992 Federal Reserve Bulletin.)

[11]By 1990 one of every two families with children below the poverty level were single parent families. This contrasts with the number of single parent families to total families (1 of every 6).

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The proliferation of non-traditional households also raises more tangible questions. Among others are questions regarding future consumption patterns, as society continues to become increasingly segmented. The first area of concern is the impact these changes may be having on the macroeconomic environment. The second concern involves the specific consumption patterns of these household units relative to more traditional structures. A related concern is whether or not traditional family units will be capable in the future of maintaining spending on big ticket items and, therefore, compensate for the spending short-fall from non-traditional households.

It is important to note that these family units statistically are economically displaced, with income and living standards below the norm (see figure 6). In fact, median household incomes of single parent families is approximately 40% of two parent household. The concentration of single parent households below $10,000 per year is also staggering--in excess of 30%. Within this environment, the cost to society from income stipends and other means of support is significant.

More importantly, a large portion of the children in non-traditional household units are living below the poverty line. These living conditions are likely to erode the educational and, therefore, future economic performance of these kids--an erosion in the human capital stock that is significant given the increasing number of kids in these households. Figure 7 illustrates the number of children living below the poverty line by family type. Almost two-thirds of all children in single parent households are in a family unit that has income below the poverty level. Recent studies have begun to track these children as they move into adulthood. Unfortunately, these studies have indicated that the anecdotal information understates a troubling development. Thus, either through social expenditures, and/or through negative repercussions on long-term growth and development of human capital, the macroeconomic environment is adversely affected by these structural changes. An additional concern of this trend is the high concentration of disadvantaged segments of the population in urban environments. These urban environments are increasingly violent, dysfunctional and socially alienated--a condition that unfortunately is demonstrated in child development statistics on deaths due to violence, infant mortality rates, health care, diet, and educational achievement.[12]

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[12]The infant mortality rate in many of our inner cities exceeds 20 per 1,000 births. Over 60% of all births are to unwed mothers. The homicide rate for African-American males under the age of 34 exceeds 200 per 100,000 residents, a rate which is 8 fold higher for all other population groups. Dietary intake levels are generally lower in most essential foods, and significantly higher in foods with more fat, cholesterol and other detrimental properties. And the college completion ratio for many of our inner city communities is less than half the average for the nation as a

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Consumption Patterns Vary

As indicated in figures 8 and 9, consumption patterns vary significantly by income and family composition in the U.S., families with higher incomes logically spending more on luxury items relative to necessities. Lower income units spend significant percentages of their income on food, clothing and housing, and very little is left over for other purchases. By 1990 almost two-thirds of all expenditures for consumer items for families in the lowest quintile were for food and housing expenditures. In contrast, families in the highest quintile spend less than 30% of their income on food and housing, a level that would be even lower except for a large investment in high quality housing stock and the amount spent on food prepared external to the home.

For the durable goods industry, these current spending patterns may prove to be troubling if present trends continue. For instance, as noted in figures 10 and 11, spending both as a percentage of income and in annual dollar amounts for one of the principle big ticket items, autos, is positively correlated to income level and two-parent families. Two wage earner families spend over $3000 a year on vehicle expenditures (two parent families are slightly below $3000), while conversely single parent spend less than $1000 a year. Single parent families and single person households are less able to make such big ticket purchases and, therefore, have a lower pattern of consumption for these items.

The impact of these spending patterns can be significant for certain industries. For instance, if all household units spent the same percentage of their annual income on new vehicles and parts as two parent households, then spending on new vehicles and parts would be increased by approximately $10 billion dollars annually or 5%.[13] This baseline calculation does not factor in the macroeconomic gains associated with addressing this economic and social hardship. Even more troubling for the durable goods industries is the fact that these non-traditional household units are continuing to grow relative to other households. Furthermore, data indicates that these household units have become less inclined to purchase vehicles in the last few decades and the amount of their income spent on durable goods is declining. For instance, in 1960 single parent families spent 7.5% of their income on vehicles annually, by 1990 this expenditure level had fallen below 6%. The impact is significant, for instance, holding family composition constant

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whole.

[13]Based upon 1990 data.

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as a share of total households allows one to project the difference in vehicle expenditure levels by 1990. The difference in annual expenditures is in excess of $22 billion, or $22 billion less spent on vehicles due to a shift in family composition rates. (Obviously one has to assume that if these household units were two parent units instead of single parent or single person, their income levels would increase to support this higher spending.)

A complimentary concern to these demographical shifts is the lag in income growth for these households relative to the remainder of society. With little or no income growth in the last few decades, the affordability of such items as vehicles is becoming a major concern. Consequently, this affordability problem may be producing the decline in the propensity to consumer. As indicated in figure 12, the affordability index of a new vehicle by family composition has deviated substantially in the last few years.[14] Vehicles have become substantially less affordable for single parents, a trend which has accelerated over the last decade. An interesting related issue in this analysis is the fact that for two parent families vehicle affordability has been relatively unchanged during the period.

The impact of these trends involves more than just a drag on overall consumption and/or changes in consumption patterns. The impact includes a shift in product composition in the marketplace to respond to these changes. For example, as indicated in figure 13, by 1990 non-traditional households comprised over 25% of the total vehicle market in terms of annual expenditures--a level which has increased from less than 15% in 1970. This shift, and future shifts in the market, will likely continue to prompt adjustments on the part of manufacturers to meet the special demand of these segment of the population. In combination with an aging society, the adjustments in product line will likely be astounding during the next decade.

The extended economic outlook for single parent families, and even two parent non-college graduate families, is certainly not bright. Intense competition in the marketplace continues to have a downward effect on wages, state and local budget difficulties will crimp aid payments, and the seemingly constant erosion of the urban environment is an everyday nightmare. Given these constraints and others forecasts concerning future development, consumption patterns for non-traditional households are at best gloomy. In the worst case, the erosion of large segments

[14]It should also be noted that single parent families in particular are one of the only household classifications where annual consumer expenditures exceed the median income level. (On average these units are currently "dissaving".) These household units consume almost 2/3rds of their income by just purchasing food and shelter.

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of the nation's consumers could usher in a period of sales stagnation for the country's producers of expensive durable goods.[15]

Two Parent Households

One compensating factor in terms of durable goods purchases has been the increasing consumption of these products by two parent households. These households have accrued most of the income gains in the last twenty years and will likely replicate this feat in the decades ahead. These entities also have a higher propensity to consume big ticket items. Furthermore, measured as a percentage of total expenditures, this propensity toward durable goods has increased in recent years.

With the increase in female participation in the work force, it is certainly not surprising to note that the number of married families with two wage earners increased by over 75% during the last twenty years. From a data stand-point, any socio-economic trend of such proportions will involve changes in society that have to be accounted for when one is analyzing aggregated data about income growth and/or distribution. And from the stand-point of this paper, the primary concern is on what this trend may be doing in explaining family income growth and future consumption patterns.

Overall, two parent families had income growth of 13% in terms of median income from 1970 to 1990, with almost all of the gains in income occurring after 1980. This contrasts once again with growth of less than 7% for all family units. From a data stand-point, by 1990 two parent families had median family income levels of approximately 135% of total household income. This level was up appreciably from 1970 when the level was approximately 120%.

Yet, more importantly, dual income families had income gains of almost 20% in terms of median income during the period, with the gains once again occurring post 1980. Certain segments of two parent families increased at a faster pace then average. For instance, African-American families with two parents posted income gains of 25% (increase in median family income) during the twenty year segment. Additionally, estimates of gains in income for dual income families

[15]A related concern is due to the fact that non-traditional families are on average younger than two parent families and have on average more children. Factors which will affect the macro-environment significantly in the decades ahead. Almost 1/3rd of all children born in 1990 were born to unwed mothers.

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in the 1980s approximate an increase in mean income of 40% between 1981 and 1990 in constant dollars.[16] This rise correlates with the rise in both personal and per capita income. Furthermore, if the data is adjusted for smaller families, the rise is rather phenomenal for these social units.

A significant concern with regards to these household units is whether or not past consumption trends will continue to accelerate in the future. Note that acceleration is vital to offset the downward effects of the expansion of non-traditional household units that will likely spend less on durable goods in the future.

Although it is likely that two parent households will maintain relatively high levels of consumption of durable goods in the future, there are some considerations that must be factored into the analysis of income and consumption trends. First, existing debt levels may produce a dampening effect on consumption due to a permanent restructuring of the household balance sheet. Of course, these debt levels can be partially offset by leasing, new financing mechanisms, refinancing, longer contract terms and other financial innovations. As analyzed in subsequently sections, the amount of restructuring to date and the potential for further extensions and/or modifications appears limited, however.

Furthermore, two parent households, although accruing most of the income gains of the last two decades, also experienced only modest income gains. And there was increasingly skewed distribution of these gains within this segment between college graduates and non-college graduates. For instance, the Office of Technical Assistance (OTA) estimates that the number of two parent families with one spouse working below the poverty line increased from 12% to 18% during the last twenty years. During this period the average wage of high school graduates with less than 5 years experience fell by almost 30%--a factor which is indicated by the differential between annual wages for college graduates versus high school graduates that currently exceeds 155%. Additionally, two parent households throughout the last few decades have increased their investment in housing stock. Therefore, the percentage of income being allocated to making house payments has increased and less income is available for other purchases. (The recent refinancing binge has muted this effect somewhat.) Finally, recent census data indicates that two parent families, are on average older than other family units. Consequently, if the life cycle theory holds, these units may be increasingly moving away from peak consumption years toward

[16]See Bureau of the Census, Current Populations Reports.

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saving period of their lives.[17] These data also indicate that two parent families are increasingly the exception and not the rule. Therefore, their minority status may overwhelm other majority trends.

Income Growth Has Lagged

A complimentary concern to distributional questions involves current and future income growth. Income trends over the last twenty years do not necessarily bode well for domestic consumption in the 1990s. As indicated in figure 14, gains in disposable personal income over the last twenty years have been relatively modest. These modest gains are below the trend of the post-war era and encapsulate the relative weakness in the U.S. economy during the last two decades. During this period, annual growth was below 2.5% and per capita disposable income growth slipped below an annualized rate of 1.5%. More ominous are the projections from the Commerce Department for disposable personal income growth over the next decade, which are even below the growth rate of the last twenty years (approximately 2.0%).

An interesting development during the last twenty year when disposable income growth lagged relative to the historical norm is the fact that consumption expenditures continued to increase at rates comparable to their pre-1970s level, with the correlation being somewhat stronger in the more robust 1980s relative to the 1970s. This level of consumer expenditure with lower income growth resulted in a stronger propensity to consume during the last two decades in comparison to the 1950s and s. A likely result of this continuation of consumption activity and higher propensity to consume during a period when income growth fell from its historical "norm" was the proliferation of consumer debt and/or reduced savings during the last decade. In fact, as consumer expenditures grew at a fairly constant rate of growth in the 1980s, income lagged and consumer debt rose both in terms of a percentage of GDP (see figure 15) and in terms of debt service payments to income. By the end of the decade, the debt burden had risen significantly and payment levels were for some segments constraining. The total household leverage ratio exceeded 90% of income by 1990, up from approximately 70% in 1980.

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[17]The demographical concerns of an aging population are even more pronounced in the first two decades of the next century. For example, given current expenditure levels by the year 2010 and the age group comprising people in excess of 45 years old will account for 53% of all vehicle expenditures. The current level is approximately 44%. The impact on product mix as well as the overall market is likely to be significant.

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It can be argued that a portion of the proliferation of consumer debt may be accounted for by the rapid enlargement of households and the metamorphose of what social theorists classify as the "Baby Boomers". Consequently, the debt increase may in part be a rational trend on the part of consumers, as they establish households and engage in other economic activity consistent with the accumulation of debt. No matter what the cause, given the modest gains in disposable personal income, this continued expansion of household expenditures fueled a significant growth in debt levels.

Overall, the continued growth of consumer spending in light of slower income growth produces what can be label as a "consumption gap".[18] This gap represents the difference between annual growth in disposable personal income and consumption expenditures. In terms of analyzing future development, questions surround what this gap means to consumer behavior. One major concern is with regards to the proliferation of consumer debt in the 1980s associated with this gap. A primary question concerning the growth in consumer debt is whether or not consumer debt growth is a natural development in response to rapid household formation rates and the age of household units or is partially caused by other economic developments. Once again, the life cycle hypothesis would argue that debt growth in the 1970s and 1980s may well be a logical response to households moving into peak consumption years. This argument assumes that there is an eventual readjustment, which will occur in future decades as these households move into the savings stage of life. Consequently, it has been argued that the debt accumulation is a natural development of baby-boomer progression--a process that will reverse itself in later decades as these households consciously pay off their accumulated debts and prepare for retirement.

Perhaps the life-cycle behavior of many millions of households is a major contributor to sluggish consumer spending as this segment goes through their peak consumption years. Perhaps increases in household net worth supported this continuation as well. However, even if the life cycle holds, if these consumption desires are not supported by growth in income, then the desires are either delayed, satisfied through the selling or leveraging of assets (borrowing against future income or unrealized gains in assets), and/or satisfied through the expansion of debt usage (or simply go unsatisfied.) In the last two decades with financial deregulation and widening access

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[18]Noted that aggregated data for households is being used in an attempt to explain broader consumer behavior. Specific household segments deviated substantially during this period, both in terms of spending activity and in terms of income growth. As stressed repeatedly if anything, this deviation likely exaggerates the gap and the potential readjustment.

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to credit, the preference has shifted toward (at least to some degree) higher levels of debt.[19] Normally life cycle theorists consider this change as a latter metamorphose and a period of rapid debt elimination. However, what are the effects of limited income gains relative to consumption? Is the debt overhang higher than in previous eras? And, what happens if income gains continue to lag future consumption and saving activity?

The overall debt level and debt servicing obligation raise some concerns for future consumption patterns, including constraining consumer activity.[20] For instance, it could be argued that consumption patterns in the decade ahead may be reduced due to a permanent restructuring in the balance sheet of households or an ongoing effort to lower debt servicing burdens. In this context, households may be revisiting their current consumption patterns based upon a permanent change in their assessment of future growth in income and expected changes in net worth relative to consumption patterns. Therefore, these concerns may be valid.[21] The recent atypical recession and recovery are at least partially the result of consumer readjustment in their balance sheet and spending activities. Debt, or at least debt servicing costs, were reduced, consumption expenditure

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[19]Gains in household net worth offsets this increase in terms of overall household portfolio. Perhaps a more significant concern if with regards to the debt servicing burden of consumer units. Most estimates of debt payments to income have increased during the last two decades. (See January 1992 Federal Reserve Bulletin). Late payments have also grown, as have bankruptcies, and delinquencies. Since 1989 due to aggressive refinancing the debt burden has been reduced somewhat, but are still above pre-1980 levels.

[20]The economic recovery in 1991-92 has been significantly impacted by limited consumer expenditures gains due to financial restructuring, structural unemployment and the weight of existing debt. Without the consumer leading the recovery, economic growth has been tepid.

[21]One perspective on this area is to argue that if Milton Friedman's permanent income hypothesis is valid, than consumption patterns may be significantly altered downward if consumption (based upon income expectations) during a previous period exceeded what was warranted by actual or expected income and net worth gains. The likelihood of this overassessment appears logical, especially if partially distorted by life cycle factors such as the rapid proliferation of households. Recent studies have in fact confirmed that consumers seem to adjust their consumption behavior to past developments with a lag. This change in perspective prompting adjustment in future activity unless overwhelm by conflicting evidence. This lag adjustment is relevant for both current and future consumption patterns, due to the fact that expectations based upon significant historical developments tend to continue to influence consumption behavior even when recent alterations may suggest otherwise.

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growth continues has been modest, and the constraint on the pace of the recovery is still a significant concern.[22]

What may be most troubling during the period of adjustment in consumer balance sheets is that detailed examination of the behavior of household units during this recession and initial recovery indicates that the historically high debt burdens have not necessarily been reduced. Lower interest rates have reduced the direct monthly burden on households in terms of servicing debt. However, the leverage ratio for households has changed very modestly. This goes against conventional wisdom on this subject. This assessment is particularly true when one adjusts for the proliferation of home equity debt as a substitute for other forms of consumer installment debt. The proliferation of automotive leasing may also be skewing the numbers somewhat and discounting the overall debt burdens of households. Benefits from lower interest rates are obvious and are advantageous to household units, but given the overall debt burden of households, the potential for future constraint on spending is still a real potential. Additionally, although the debt servicing ratios have been reduced, they are still high by historical standards in spite of the current favorable interest rate environment.[23]

One potential offset to weak income growth and high debt levels is the growth of household net worth through the appreciation in housing values and financial assets. The gains in household assets were generally positive during the period and there was a gain in household net worth. Yet, when adjusted for inflation the rise in net worth is not as significant as initially perceived. Also the gains have been somewhat volatile and highly dependent (logically) on strong run-ups in asset values.

It should be noted that the price of existing single family homes actually lagged certain measures of inflation during the second half of the 1980s. The regional variations were also substantial, with gains skewed toward the coastal regions of the country. Also a significant readjustment in housing values has occurred since the late 1980s with devaluation occurring in the two most

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[22]The level of debt restructuring which has occurred is certainly a question of great debate. For instance, when one factors in the switch toward home equity debt and leasing for autos the reduction of consumer debt which has occurred is minimal. Unfortunately, current statistics in this area are sparse. See Eugeni 1993.

[23]See Eugeni 1993.

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robust areas, New England and California.[24] If trends continue, future stagnation in housing values may provide an additional depressant on the wealth effect gains.

Additionally, in terms of gains in net worth during the 1980s a major concern involves the concentration of assets in higher income categories. This element may further distort the increasing gap between rich and poor and intensify the effects of increasing differences in income growth. Recent studies indicate a strong gain in mean net worth with only modest gains in median levels.[25] This difference implies a biased nature to these gains in terms of rich and poor.[26] An element that rises significant questions for consumption spending activity in the future. One contributing element is the disproportionate number of renters in lower income families relative to the average population. The gains in housing appreciation are, therefore, potentially discriminatory in terms of their disproportionate impact to middle and upper income households.

Of course, one aspect of the current behavior has been the pessimism based on factors that are largely cyclical and/or associated with other economic problems such as abnormal weakness in the labor markets.[27] In an extended time context, this economic time frame may be seen as merely transitory, due in large measure to the fact that some restructuring of consumer debt has occurred in the last few years and many big ticket purchases have been delayed. However, the level of consumption relative to weak income growth and the prospect of slower growth in net worth (especially housing values) does raise the potential for a permanent reassessment of consumption patterns, especially in an environment of limited income gains in the foreseeable

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[24]The weakness in housing prices has continued into 1993 in spite of an acceleration in the economy and a rebound in the housing market.

[25]See the Board of Governors, Survey of Consumer Finances.

[26]The impact of wealth gains on current and future consumption is also different than gain in income. For instance, estimated that the marginal propensity to consume for income was on average approximately 0.7, while the marginal propensity to consume out of assets was approximately .06. See Modigliani 1975.

[27]The changes in the labor markets may not only involve short-term economic developments, but long-term as well. For instance, the amount of structural unemployment, movement from high paying industries (defense, air space and autos), and other developments have profound implications for the economy for the next few decades.

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future. In fact, under this scenario some form of a permanent readjustment appears highly probable.[28]

Furthermore, the aggregated data only show part of the problem in analyzing consumption trends relative to income. A related concern is the slow or declining rate of income growth for a large segment of the population. As detailed, distributional concerns by themselves are an area of great concern as one attempts to project consumption patterns relative to the past. In terms of a permanent income readjustment, these distributional concerns may exaggerate an underlying trend of more cautious behavior. For instance, the real incomes and wages of many segments of the manufacturing sector have declined significantly during the last twenty years. Wages for high school graduates have declined by some estimates in excess of 15% on average during this period (OTA estimates, 1992). The impact of these wage declines on consumer behavior and future consumer behavior will be of great importance to the overall U.S. marketplace in the next few decades.

Finally, there is a general issue of affordability of products relative to income levels. For many products, the affordability index over the last twenty years has become more favorable. Televisions, personal computers, stereos and other electronic equipment, and certain agricultural products fall into this category. Yet, at the same time certain staples of middle class life have not become more affordable and, in fact, absorb a larger portion of income. Indeed, they may be intensifying the effects of weak income growth. Housing, medical care and education all fit into this category. Price increases for these products have exceeded the consumer price index in excess of 40% since the mid-1980s.

A Midwest Profile

The Midwest has long been seen as a region which is normal for the nation. In terms of socio-economic statistics this is certainly not always been true. For instance, note the high

[28]One interesting recent area of analysis is attempting to gauge how consumers and business respond to past periods of economic uncertainty and hardship. In today's rapidly changing marketplace the potential for uncertainty over employment, revenue and other factors is great. Eventually individuals may accept this as normal, but obviously this conclusion may come slowly and not without some pain in adjustment.

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concentration of manufacturing facilities in the region. In terms of demographical trends, the region also shows some differences with the nation. Unfortunately, these differences are not necessarily beneficial, considering the magnitude of national trends.

In terms of the region, data from two of the largest states, Michigan and Illinois (which include the two most important metro-areas in the region) indicate greater intensity with regards to the trends note above. For instance, in these two states approximately 20% of all families are headed by a single parent. This ratio of 1 to 5, exceeds the 1 to 6 ratio for the nation. The concentration in the inner cities are obviously higher, with some estimates on Detroit and Chicago exceeding 50%. Even the metropolitan areas where a more representative survey is available indicate a significant erosion in traditional family structures. For instance, in the greater Chicago area over 25% of all families are headed by a single parent. (In Detroit the ratio is slightly higher.)

In terms of income, single parent families in these two states have a median income level less than 45% of the family median income levels in the state, a level slightly below the national average of 47%. Perhaps more importantly the preponderance of poverty in this setting is overwhelming. For instance, in Illinois and Michigan combined over 70% (over 70%!) of all families living below the poverty level are single parent units. In fact, the poverty rate for single parent families with children approximates 50%. This contrasts with a rate for all families of approximately 15%.

The tragedy intensifies when one compensates for the living conditions these family units find themselves in. The inner cities of Detroit and Chicago are characterized as poor areas racked by violence, drugs and other social problems. This characterization, although perhaps overstated at times, is grounded somewhat in reality--a factor which intensifies the importance of coming to grips with these socio-economic problems.

One other consideration is with regards to how these trends may be impacting regional development. Besides the strain on resources, the lack of development and the social/economic barriers for these family units are very troubling. Human capital may not be reaching its full potential. Incidents in terms of crime and other social ills are more likely. Moreover, the overall drain on scarce regional resources is substantial.

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Impacts on Midwest Producers

Given these potential changes in consumption patterns add to other economic considerations, a strong argument can be made for the view that sales of "big ticket" items in the U.S. market over the next few decades will be modest to weak at best. In some sectors the sales trend may in fact be flat or even negative. These trends are reinforced by significant improvements in product quality and durability. Even given a best case scenario of modest sales growth the challenges for these industries and the focal point of operations, the Midwest, are numerous. For examples:

1) The continued reliance on durable goods as the backbone of the Midwest economy.

Although diversification is a term used extensively in the region since the 1970s, durable goods still comprised a significant level of employment and income in the region. If the domestic sales environment slumps during the next few decades, the implications for the region will continue to be profound. Many facilities in the region are still old by industry standards and are natural targets for the elimination of excess capacity. A weak sales environment will also temper any desire to increase capacity in the future.

2) Intensification of competitive pressures.

The domestic marketplace has become significantly more competitive during the last few decades as domestic operations have streamlined and foreign firms have penetrated the market. The impact of these competitive pressures were partially muted by an expanding market in the U.S. which cushioned the full impact. A flat market is much more difficult for producers to compete, as market share becomes the primary goal. The pressure is consequently intensified in a mature market and a expanding sales base does not partially compensate for these pressures.

3) Given these factors, non-traditional development approaches become important.

Obviously producers in the region have consciously attempted to diversify (out of necessity) during the last few decades. These efforts have been somewhat successful and have contributed to the above average growth for the region in the last few years. Yet, a portion of these gains come from a more competitive, revitalized domestic manufacturing base. Given a flat market, economic development agencies are faced with a greater dilemma in encouraging growth and change in the region. A revitalized manufacturing base still struggles in spite of its renewed

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competitiveness. Downstream industries are also impacted, along with income, employment and quality of life factors in the region.

4) Exports may become an important element in this strategy.

Exports for the region and the nation have been an important contributor to the economic recovery, and in fact have been the principal stimulus to gains in GDP since 1987. In a domestic marketplace which is not experiencing sales growth and is experiencing substantial pressure to restructure and downsize, exports take on renewed importance.

5) Export growth requires alternative development strategies.

For durable goods industries, an export strategy is burdened by a variety of factors. Trade barriers, trade agreements, the question of factor mobility, general locational concerns, competitive environment and governmental policies are all major questions for industries to address in formulating a comprehensive export strategy. On the plus side exports have grown in the last twenty years and the outlook is increasingly bright. Whether or not the prospects are identical for all goods is questionable, however.

The dynamics of sweeping structural changes have significantly altered the Midwest's regional economy. Past patterns of market activity and demographical shifts are becoming less relevant in today's environment. Changing demographical trends, the prevalence of structural dislocation, and the heightened importance of global competitiveness have and will alter the economic setting for all individuals and institutions. Public and private policy which fails to recognize these fundamental shifts in underlying conditions may produced disappointing results. For the Midwest, the importance of many of these changes takes on particular importance due to core industries and the radical transformation of the region during the last few decades.

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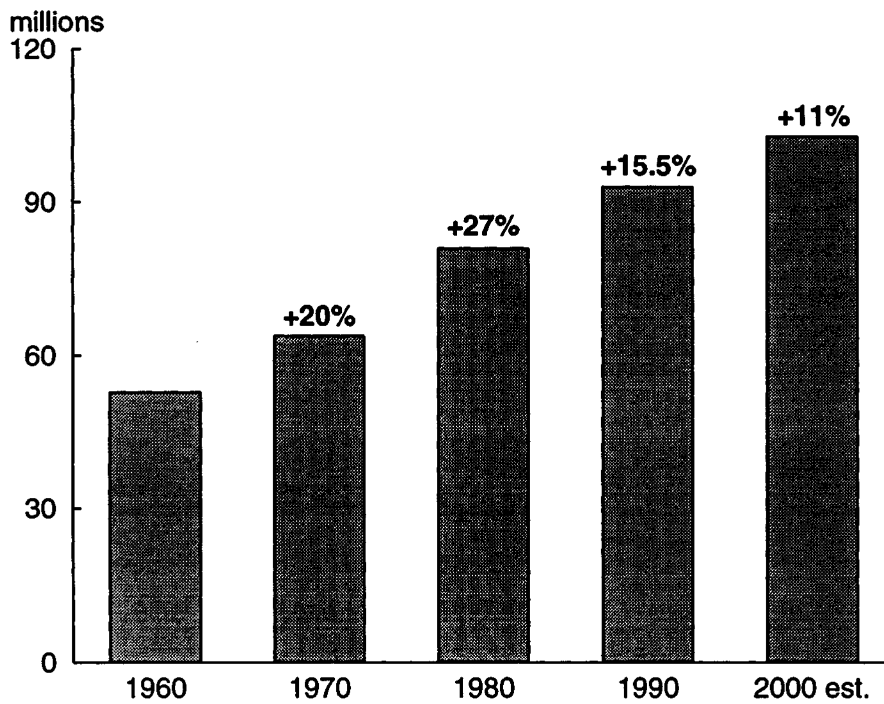
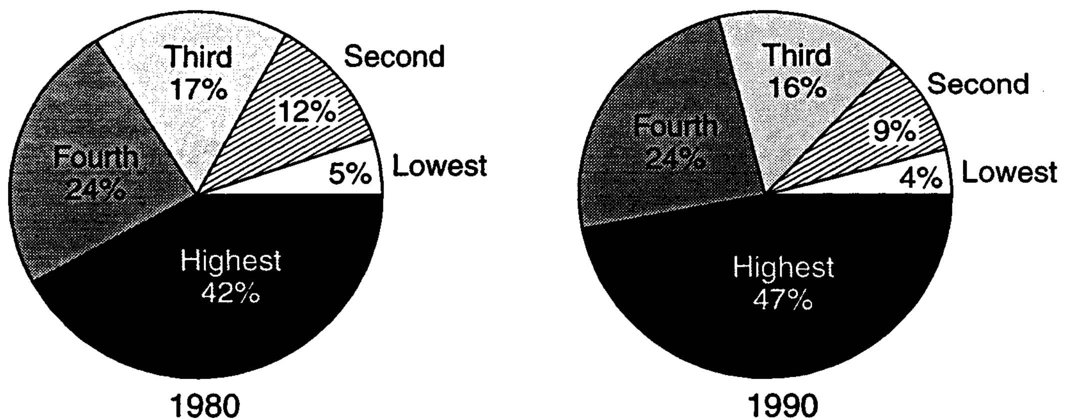
Figure 1
Total number of households



Source: U.S. Department of Commerce.

Figure 2
Share of aggregate income by population segment



Source: U.S. Department of Commerce.

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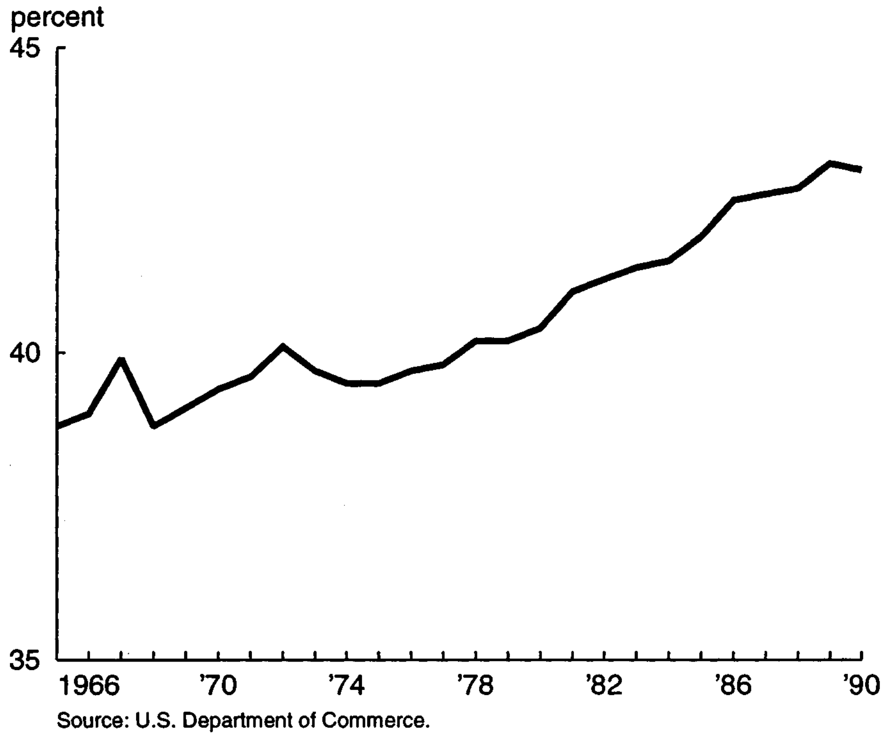
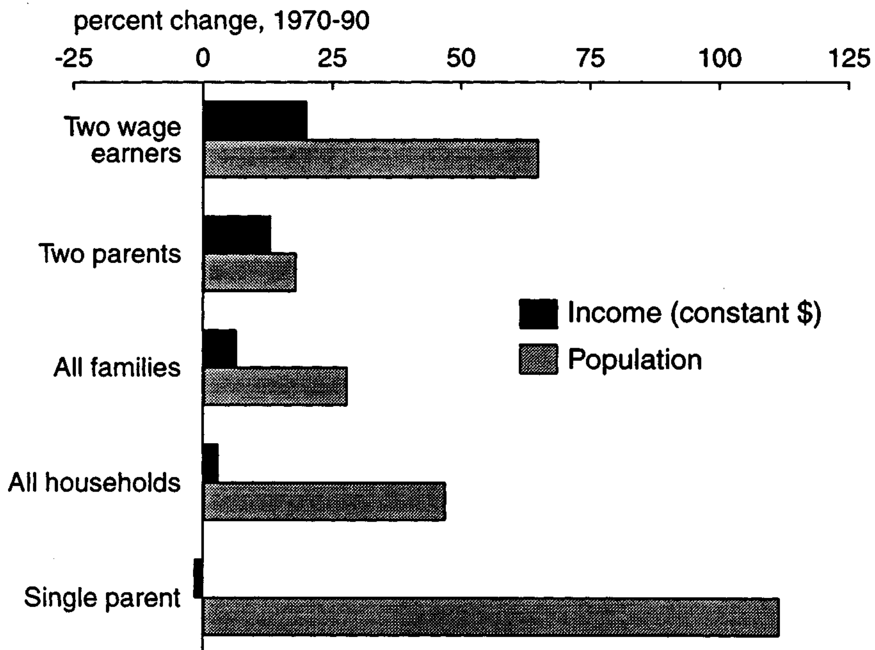
Figure 3
Degree of income concentration in U.S.—Gini Coefficient



Source: U.S. Department of Commerce.

Figure 4
Income growth by family unit



SOURCE: U.S. Department of Commerce.

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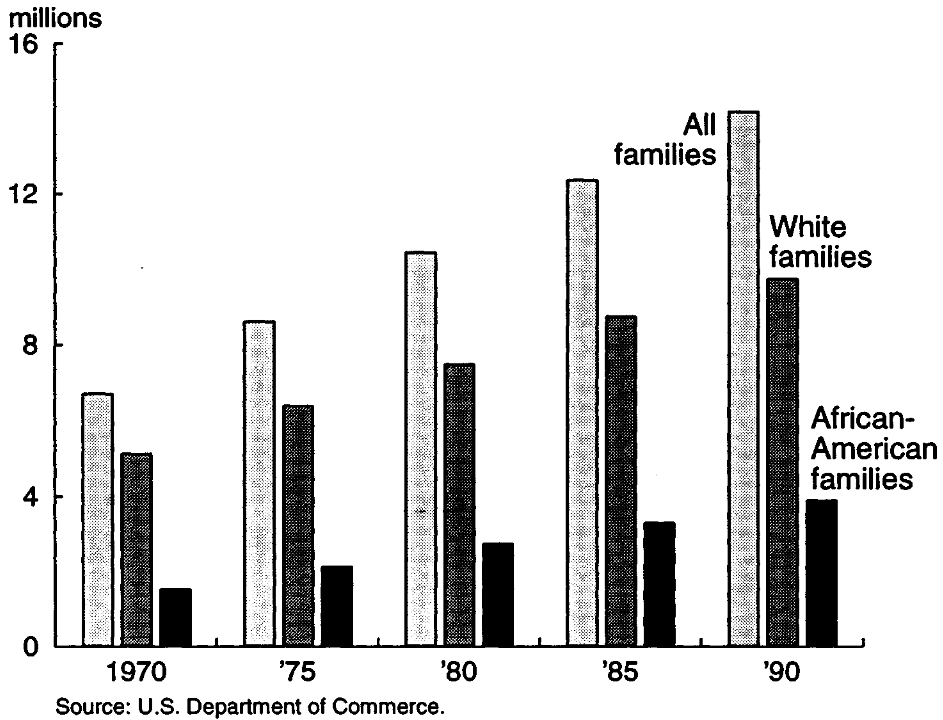
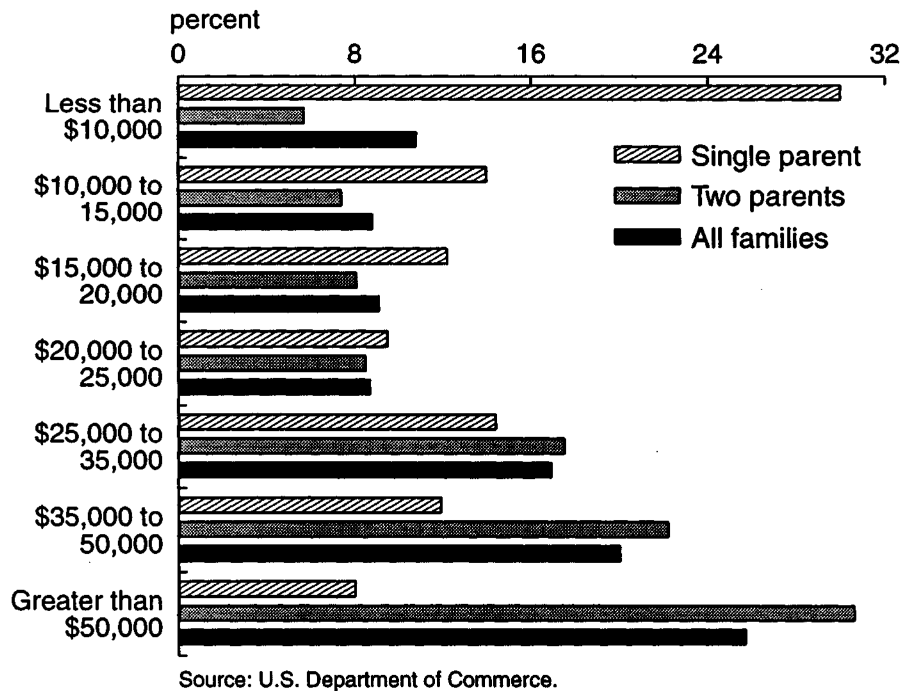
Figure 5
Distribution of single parent families



Source: U.S. Department of Commerce.

Figure 6
Family units by income levels—1992



Source: U.S. Department of Commerce.

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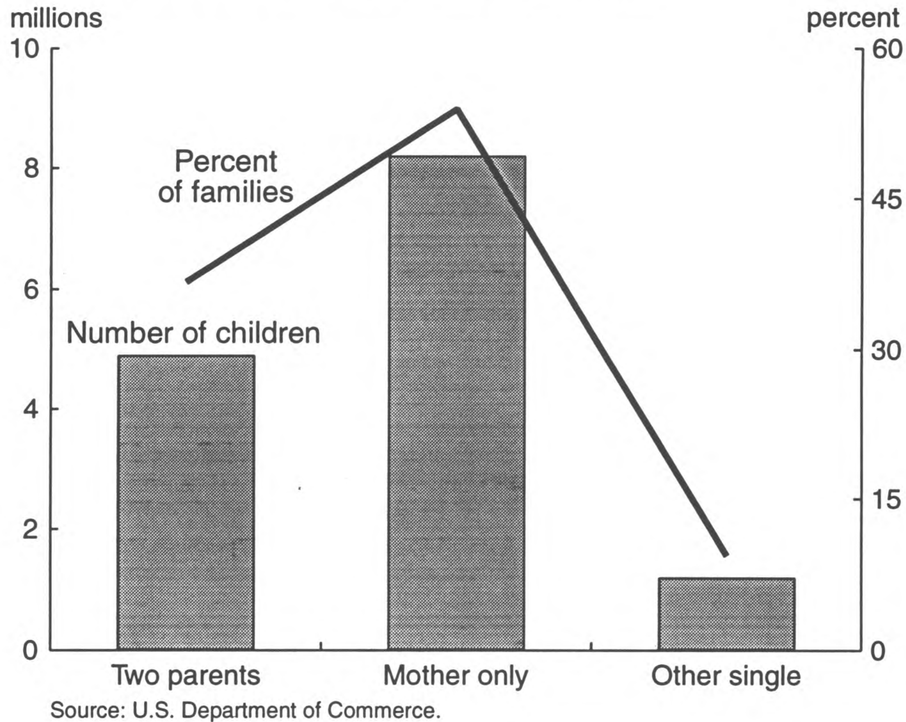
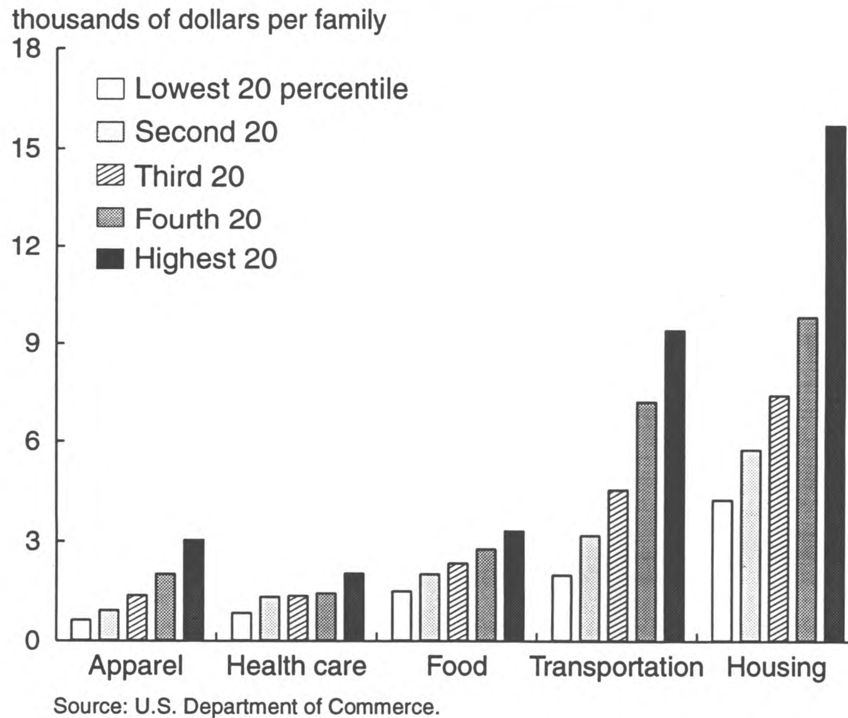
Figure 7
Children below the poverty level by family type—1992



Source: U.S. Department of Commerce.

Figure 8
Average annual expenditures by income and category



Source: U.S. Department of Commerce.

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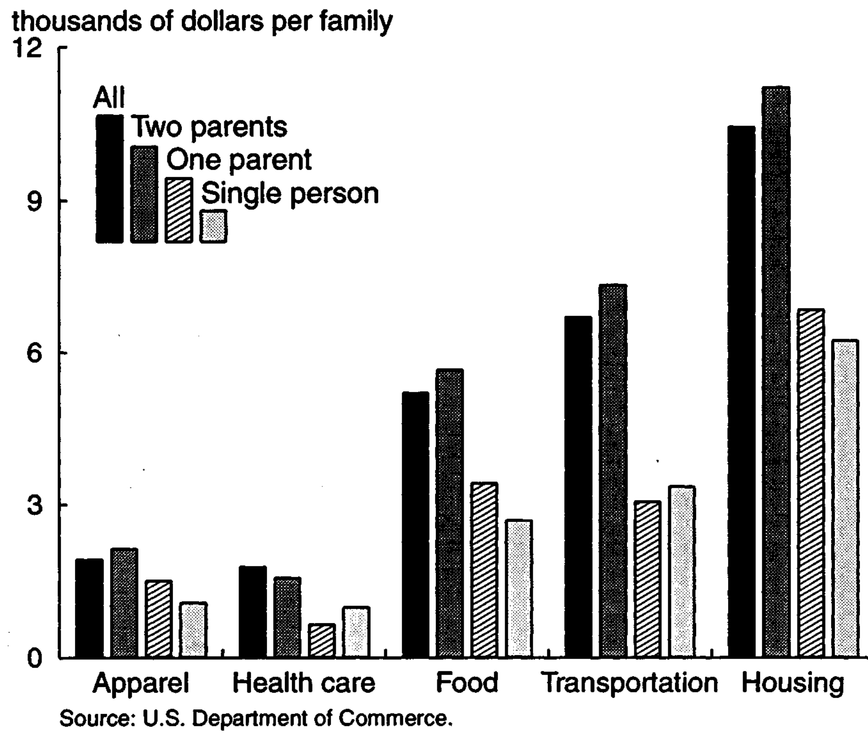
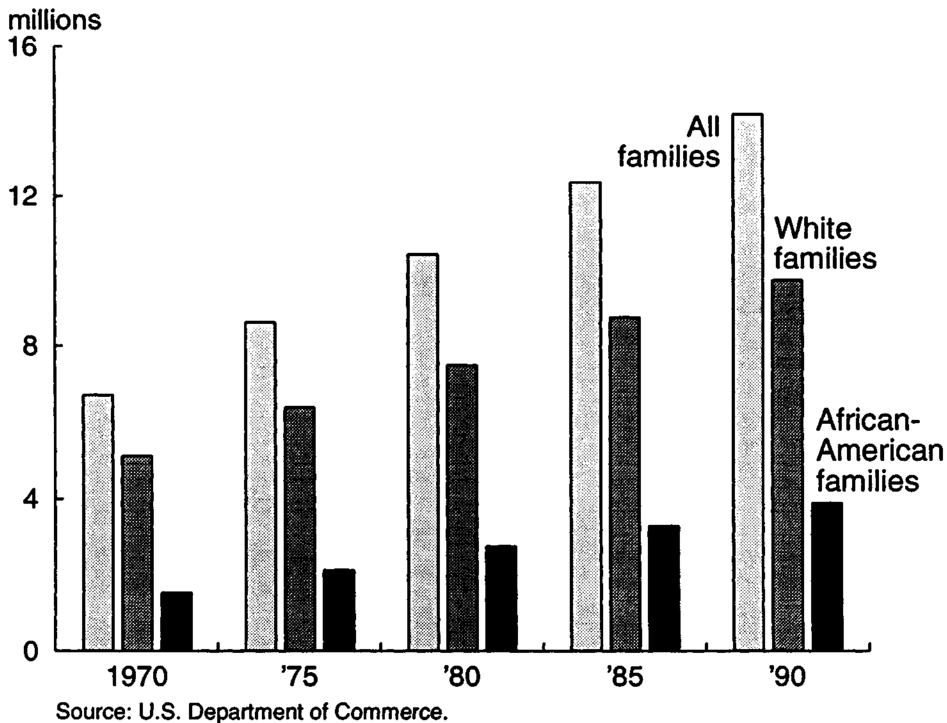
Figure 9
Averqage annual expenditures by household and category—1990



Source: U.S. Department of Commerce.

Figure 10
Annual expenditures on vehicles by family type



Source: U.S. Department of Commerce.

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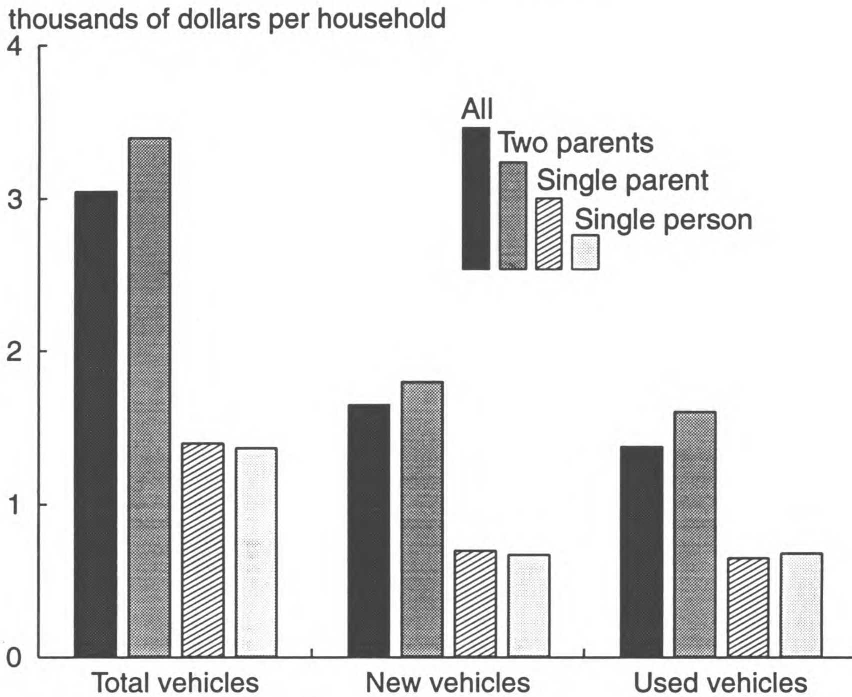
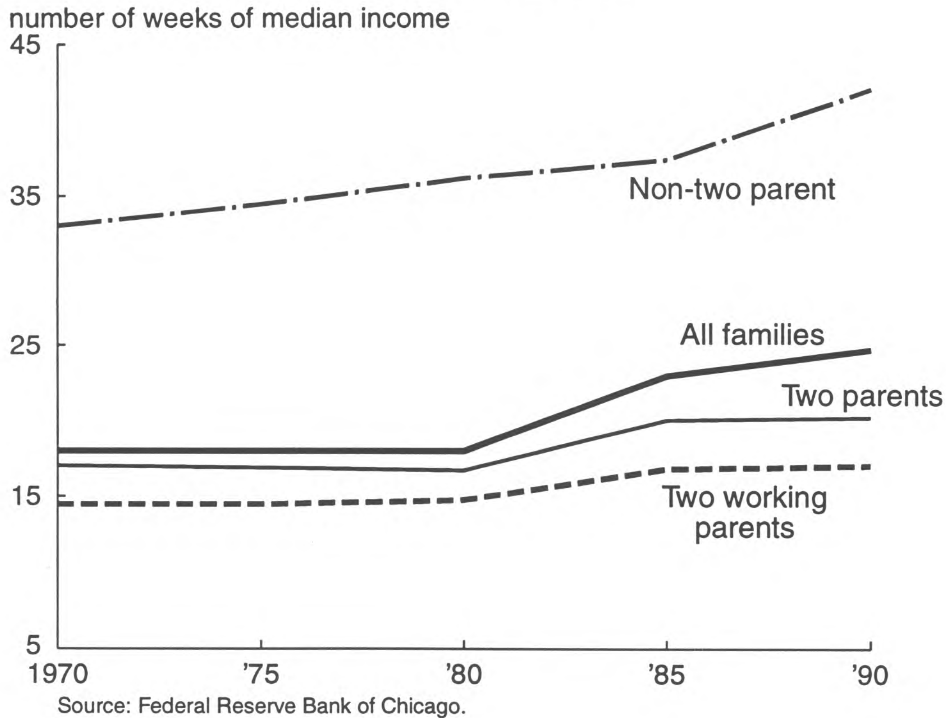
Figure 11
Vehicle expenditures by household category—1990



Source: U.S. Department of Commerce.

Figure 12
Weeks of family income to equal average price of car



Source: Federal Reserve Bank of Chicago.

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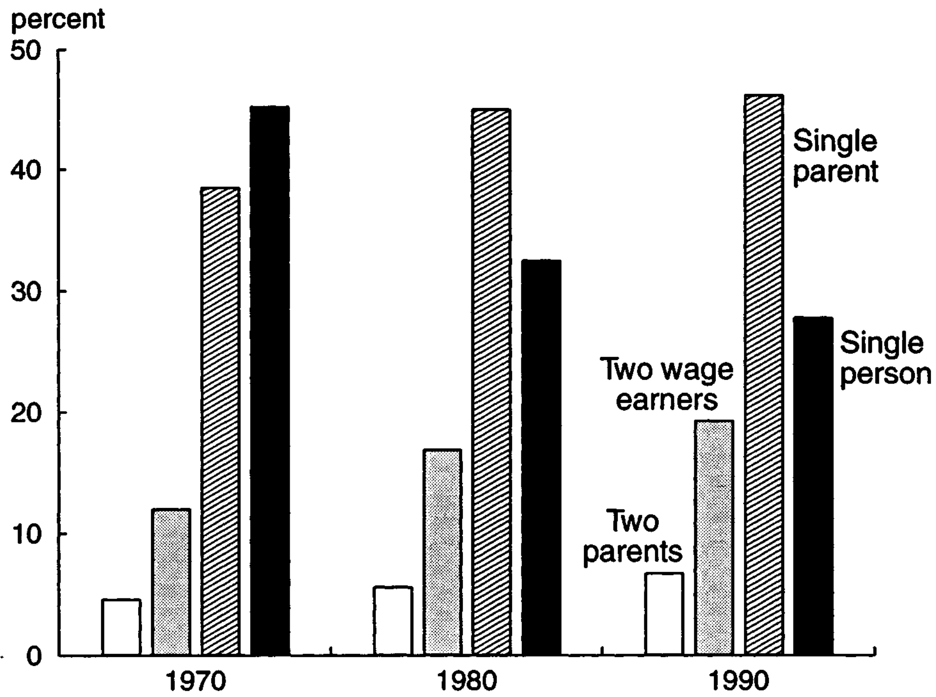
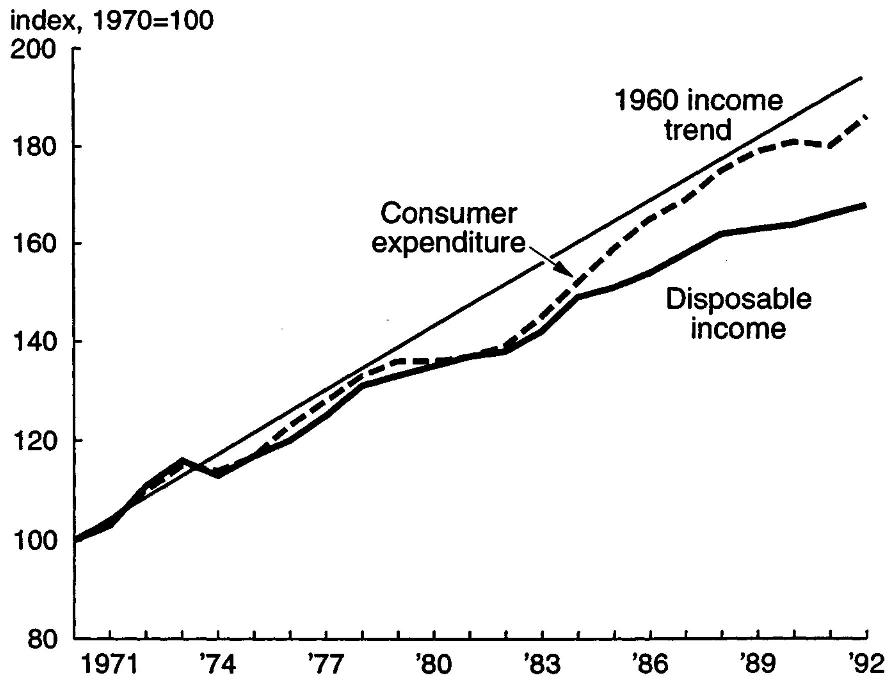
Figure 13
Distribution of total motor vehicle expenditures by family type



Source: U. S. Department of Commerce.

Figure 14
Patterns in consumer expenditures and disposable income



Source: U.S. Department of Commerce.

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Figure 15
Ratio of consumer debt to disposable personal income

Source: Board of Governors, Federal Reserve System and U.S. Department of Commerce.

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