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The Declining Middle: Is Pennsylvania Losing Its Middle Class?

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From the 1970s and into the 1990s, much attention has been focused on the shifting distribution of household incomes in the United States. Industrial restructuring–with the shift from manufacturing to services, technological advances, and reorganization of the workplace–is changing the types of jobs available and with them, the earnings workers receive. Specifically, the number of very good jobs requiring higher education levels and technological skills are increasing, as are those at the lower end of the wage scale–jobs requiring fewer skills and often located in the service and retail trade sectors. These trends have led to increases in wage inequality–a larger gap between the highest and lowest wages.

To understand the consequences of increasing wage inequality, it is essential to recognize that household members make joint decisions about employment and to consider the situation of those who are not in the labor force. How households have adapted to changing wage inequality while constrained by the education, skills, and number of household members, and by local opportunities, will determine whether increasing inequality corresponds with the loss of the middle class.

At the same time, shifts in family structure toward more single person and female-headed families and increases in wives' labor force participation further contribute to the developing disparity in household incomes. These shifts in employment, family structure, and labor supply combine to increase the inequality in the distribution of household incomes in the United States (Bluestone 1990; Danziger and Gottschalk 1994; Levy and Murnane 1992; Maxwell 1990; Harrison and Bluestone 1988). In particular, the middle of the income distribution is believed to be shrinking in the U.S. overall, with some households moving significantly toward the upper end of the income distribution, and others shifting to the bottom–a loss of the middle class.

While information is available on these trends nationally, less is known about how they play out at the local level. Are all local areas experiencing these shifts toward increasing income inequality? Are rural or nonmetropolitan areas following this national trend? What does increasing income inequality mean for the United States and for local communities?

Why Should We Care about Income Inequality?

Increasing income inequality, particularly the increasing gap between those at the top and those at the bottom of the income distribution, tends to play out at both the national and local levels. At the national level, federal government policy is clearly influenced by those with economic resources, whether they be individuals or corporations. Often policies that benefit those at the bottom of the income distribution (e.g., minimum wage, universal health care, welfare) are opposed by those at the top, generating conflict over the appropriate goals and directions for national policy. At the local level, increasing inequality can appear as conflict over local service provision priorities, land use, and as divisions among groups in the community. Inequality can be a prime barrier to having a broad representation of community members working together toward common goals for the betterment of all residents and the economic and social development of the community. Ultimately, the increasing inequality in America belies the goals of a nation built upon equal opportunity. The disadvantages and lack of resources experienced during childhood and young adulthood by those in families with low incomes are extremely difficult to overcome, and limit the opportunities that are available.

The First Step: What Has Happened to the Level of Household Incomes?

The 1980s and early 1990s contained periods of recession and slow growth combined with industrial and job restructuring. Figure 1 shows the variation in median household incomes for the United States from 1969 to 1996. The median household income is the annual income received by the household exactly in the middle (the 50th percentile) of all households ranked from lowest to highest income. Most notably, inflation-adjusted median household incomes reached a peak in 1990, then dipped and as of 1996 have not recovered to 1990 levels.

To gain a sense of the extent of inequality, recent data from the U.S. Bureau of the Census show that in 1979 the top 5 percent

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Figure 1. Median Household Income, 1969 to 1996, United States

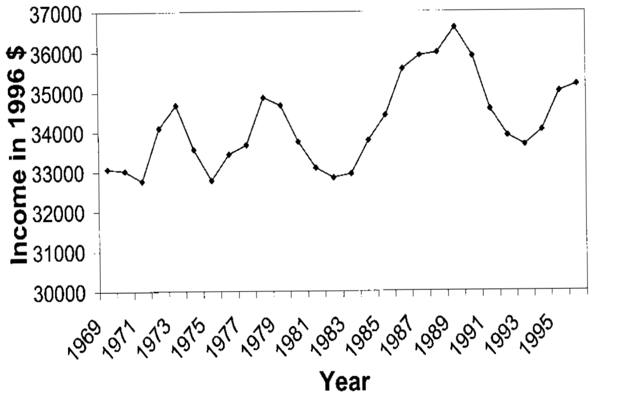
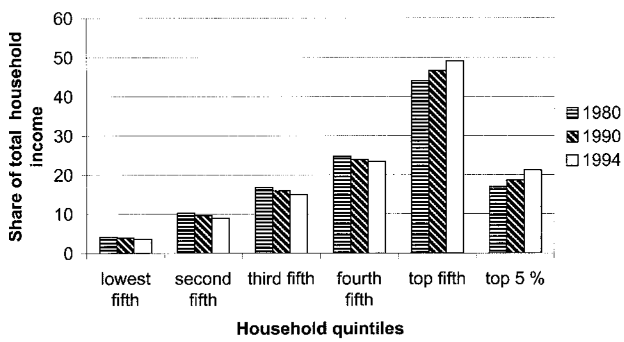


Figure 2. Share of Aggregate Income Received by Households



of households held 16.9 percent of income and the top 20 percent of households garnered 44.2 percent of aggregate household income (See Figure 2). By 1994, the share of the top 5 percent of households had increased to 21.2 percent, and the top 20 percent held 49.1 percent, or almost half of all household income in the U.S. By comparison, in 1994, the bottom 20 percent of households had only 3.6 percent of aggregate household income, and that share had declined from 4.1 percent in 1979. The share of total income received by households in every quintile but the top quintile declined from 1979 to 1994.

Table 1. County average of median household income, 1979 and 1989 (in 1989 dollars, county data weighted by number of households).

	1979	1989	Percent change	Declines in income (#, %)
United States (n=3,068)	$27,106	$30,674	13.16	1,013 (33.0%)
Metropolitan (n=811)	28,496	32,655	14.60	164 (20.2%)
Nonmetropolitan (n=2,257)	22,016	22,930	4.20	849 (37.6%)
Pennsylvania (n=67)	26,983	29,526	9.42	24 (35.8%)
Metropolitan (n=33)	27,537	30,460	10.61	10 (30.3%)
Nonmetropolitan (n=34)	23,821	24,222	1.68	14 (41.2%)

Data from the 1980 and 1990 Census of Population and Housing indicate that for all households, real incomes (inflation-adjusted to 1989 dollars) increased over the decade. Using county averages, median household income increased from $27,106 in 1979 to $30,674 in 1989–an increase of 13.16 percent. (See Table 1.) Nonmetropolitan counties, as defined by the Census in 1993, faced much slower growth in median household incomes than did metropolitan counties. The average of median household income in nonmetro counties increased by only 4.2 percent, on a base that was much lower in 1979–only $22,016.

By comparison, the county average of median household income in Pennsylvania was lower than the national figures in both 1979 and 1989, and the rate of increase was less. The gap in the average of county median income between metropolitan and nonmetropolitan counties in Pennsylvania was smaller, however, because Pennsylvania's metro counties had lower median incomes than the U.S., and the state's nonmetro counties had slightly above average median incomes. For Pennsylvania, and for Pennsylvania's metro and nonmetro counties, growth in median household incomes was slower than for the U.S. In Pennsylvania's nonmetro counties, median household incomes grew by only 1.68 percent, from $23,821 in 1979 to $24,222 in 1989. Despite the increase in median household incomes from 1979 to 1989 in Pennsylvania, 24 of Pennsylvania's 67 counties had lower median household incomes in 1989 than they had in 1979. The median households in these counties were worse off in 1989 than in 1979. Of these counties, 14 were nonmetropolitan counties.

The comparison of median household incomes is interesting, but it reveals almost no information about how these changing incomes are being distributed across households. We now turn to examining the distribution of household income (e.g., how many households had low, medium, or high incomes) and how it changed from 1979 to 1989.

Did the Middle Class in the United States Decline During the 1980s?

The growth in inequality described during the 1970s and 1980s focused on the notion that the middle class was declining. Middle-class jobs, especially manufacturing jobs, were disappearing and being replaced by jobs in the service sector and retail trade –jobs typically depicted as low paying and less than full time. In response to the loss of "good jobs" workers took on additional jobs or households chose to send multiple workers into the labor force to make up for lost earnings. The ultimate effects of these changes for household income inequality are still being debated.

To answer the question of whether the middle class has declined, it is necessary to ask specific questions about the shape of the income distribution. Is there a greater share of households at the lower and upper end of the distribution in 1989 than in 1979. Have households become more polarized during the 1980s? Figure 2 indicates that for the U.S. overall, fewer households held more of the aggregate household income in 1994 than in 1979, but this fails to tell us what has happened in Pennsylvania.

To answer this question, we compare the full distribution of incomes. We use relative distribution methods (See Handcock and Morris 1998, for a full description) to compare the share or percentage of all households that fall into set (predetermined) income categories in 1979 and 1989. A change in the number of households over time does not influence the conclusions, but shifts in the share or proportion of households in each inflation-adjusted income category do.

In the Census we cannot track the same households over time, so we do not know which households actually gained or lost income over the decade. The pattern may be as simple as households in the lower categories moving up as their incomes increased. More likely, there is some shifting of households across all categories. The relative distribution for the United States does not provide strong support for the middle class shifting toward both the bottom and top ends of the income distribution. In fact, there is little change in the bottom categories; it is really only above the median income that we see a shift of households towards the very top end. There is little evidence for an overall decline of the middle class. Rather, households with incomes above the median are improving their positions and moving towards the upper end of the distribution.

Pennsylvania's Changing Income Distribution—Is It Like the U.S.?

The relative distribution for Pennsylvania shows that the categories at the bottom of the income distribution had roughly the same share of households in 1989 as in 1979. There is little evidence of a shift of households toward the bottom end of the income distribution in the state as a whole. Shifts in the household income distribution are occurring such that households are moving from categories just above the median to the top category. It appears that those who already had good incomes were able to improve their economic position even further over the decade, or that households that moved into the state had incomes in the top category, or households moving out had incomes above the median but below the top categories. Those with incomes below the median held their own compared to each other, but lost ground compared with those above the median. If there is any loss of the middle class in Pennsylvania, it is because some of the middle class is moving up (or out), not down. Overall, Pennsylvania is similar to the U.S.

Pennsylvania's Counties—Not a Mirror Image of the State as a Whole

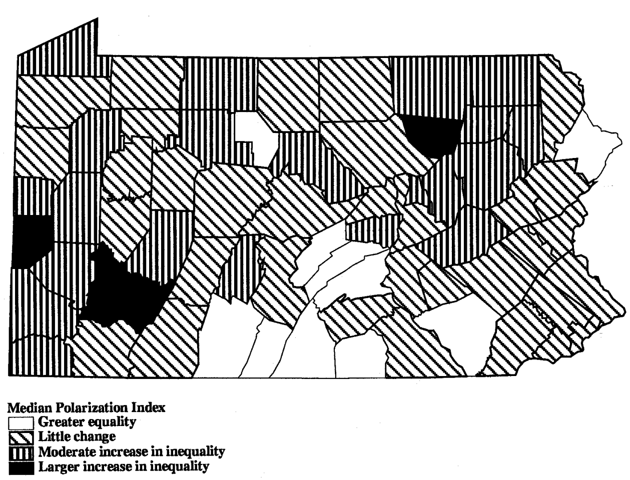
The relative distribution methods provide an easy way to think about the changing shape of the income distribution, but using a separate graph for each geographic unit makes comparisons of multiple states or counties difficult. One way to compare the change in share of households across income categories from 1979 to 1989 is to create a summary measure or index. We create three of these indexes, called polarization indices. The *median polarization index* captures the movement of households away from the median or middle and towards either end of the income distribution. This is a good overall indicator of the change in income inequality because it can measure the loss of the middle class. The *lower polarization index* indicates the degree to which households have moved from the median towards the bottom of the income distribution, and the *upper polarization index* assesses movement from the median income towards the top of the income distribution. We use these indices to group Pennsylvania's counties by changes in household income inequality from 1979 to 1989.

Overall, household income distributions became more equal from 1979 to 1989 for ten Pennsylvania Counties, as shown in Map 1. These ten are Adams, Bedford, Cameron, Franklin, Fulton, Juniata, Lancaster, Mifflin, Perry, and Pike Counties. The other three groups of counties all experienced an increase in income inequality over the decade, with Beaver, Sullivan, and Westmoreland Counties having the greatest increases in household income inequality, suggesting a movement of households away from the middle and toward the upper and/or lower ends of the distribution.

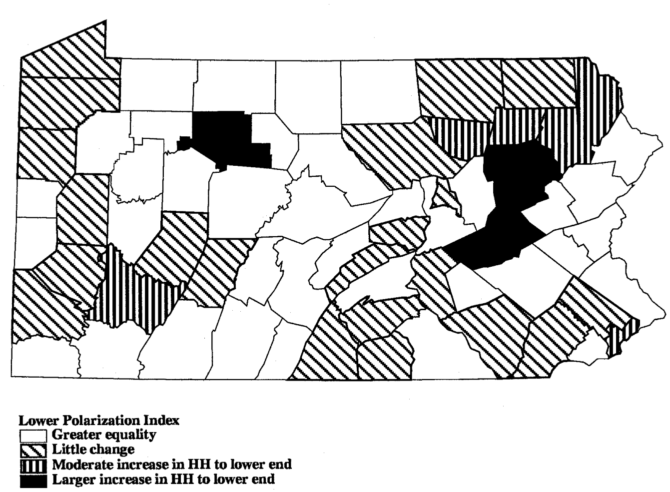
The geographic patterns of increasing income inequality suggest that those counties that contain long-established industrial cities (Pittsburgh, Erie, Wilkes-Barre, and Scranton) and the surrounding counties had the largest increases in income inequality. Counties in the more rapidly growing southeastern part of the state and along the eastern border with New Jersey had more moderate growth in income inequality. All of the counties that experienced greater equality, except Cameron and Pike, are located in the Southern Tier or southeastern Pennsylvania.

Map 2 shows the distribution of the lower polarization index across Pennsylvania counties. Recall that this captures shifts of households from the middle and towards the lower income categories. Thirty-eight Pennsylvania counties had households that moved away from the bottom of the income distribution and toward the middle or median household income. This suggests improvement in the relative economic well-being of lower income households in these counties. Most important, these counties tend to be distributed throughout the state. Exceptions would be the northwest and northeast corners and the counties around Allegheny County.

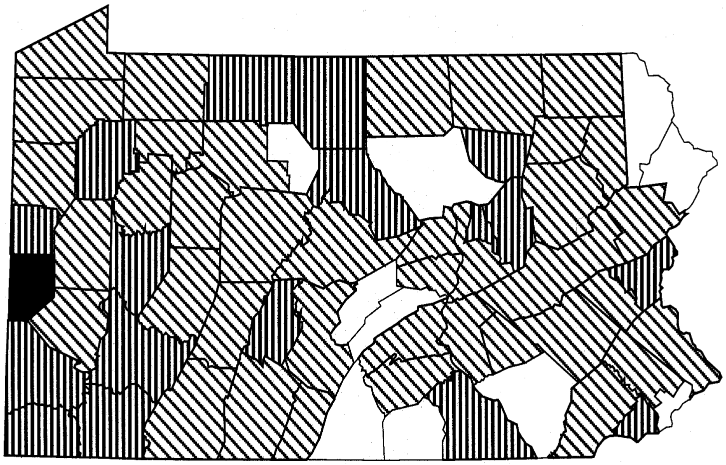
Map 1. Median Polarization Index of Household Income.



Map 2. Lower Polarization Index of Household Income.



Map 3. Upper Polarization Index of Household Income.



The darkest gray-shaded counties in Map 2 had the largest share of households move from the median or middle income categories to lower income categories from 1979 to 1989. Elk, Luzerne, and Schuylkill Counties had the largest shifts, suggesting that households in these counties moved from the middle of the income distribution towards the lower end during the 1980s. Lackawanna, Sullivan, Wayne, Westmoreland, and Wyoming Counties and the City of Philadelphia had more moderate shifts of households from the middle to the lower end of the income distribution. Lower and middle-income households in these counties experienced worsening conditions over the decade, and show a pattern of household redistribution that is consistent with a loss of part of the middle class and potential increases in poverty.

The upper polarization index reflects the movement of households from the middle of the income distribution above the median to the upper categories–an increase in inequality. The majority of Pennsylvania counties (57 of 67) experienced such shifts from 1979 to 1989. These are shaded gray in Map 3. Beaver County had, by far, the largest shift of households from the middle and toward the upper income categories, increasing income inequality in the county. Ten counties, Adams, Cameron, Franklin, Juniata, Lancaster, Lycoming, Mifflin, Pike, Wayne, and Philadelphia, actually had households shift from the upper end of the income distribution toward the median (lightest-colored counties), resulting in greater income equality from 1979 to 1989.

When the various polarization indices are examined together, more interesting stories are revealed. While ten counties had greater equality overall (Map 1), only three of those—Cameron, Mifflin, and Pike—showed households moving from both the lower (Map 2) and upper (Map 3) income categories toward the median. These three counties had greater concentrations of households in the middle of the income distribution in 1989 than in 1979–greater equality. No counties had the highest levels of increasing inequality on all three polarization measures. Sullivan and Westmoreland Counties come closest. Both have relatively large shares of households moving from the middle to the lower and upper income categories (Maps 2 and 3, respectively), and they were two of the three counties with the highest overall increases in household income inequality.

Overall, there is evidence that income inequality has increased in the majority of Pennsylvania's counties, but much of it is driven by shifts of households from the middle of the income distribution (above the median) towards the top, rather than by a gutting of the middle through movements of households toward the top and the bottom. This pattern of increasing inequality has different implications than does a shift of households from the middle toward each end. While inequality is increasing, these patterns suggest that the households with the most income are increasing the gap between themselves and everyone else.

What Do We Know About Income Inequality Since 1990?

The decade of the 1990s started out with declines in median household incomes, but then developed into a period of economic expansion. Many local economies have taken part in this growth. Strong economic growth is argued to influence household income inequality on a number of fronts. First, a strong economy means that wages paid for labor in high demand (initially those with education, skills, and training needed in the high technology workplace) will be forced higher, especially if productivity of these workers continues to rise. This would shift households further toward the upper tail of the income distribution. More recently in the economic expansion, however, the demand for lower-skilled workers in retail trade and the service sector has increased. A shortage of these workers drives up their wages, as did the increase in the minimum wage. In addition, this growing demand for workers with fewer skills may result in less-skilled people who have not held jobs entering the labor force. These changes suggest shifts of those from the bottom of the income distribution towards the middle. Which effect is dominant is determined by whether the growth in opportunities and wages at the middle and top of the economic ladder exceeds that for persons near the bottom.

Inflation-adjusted median household income increased from \$36,475 in 1990 to \$36,928 in 1998 (in 1998 dollars) – a small increase that contributes little to households shifting into higher-income categories. Thus, most of the increase in inequality from 1990 to 1998 results from the redistribution of incomes among households. The lowest income category actually lost households suggesting some improvement for those at the very bottom of the income distribution. The increase in the minimum wage and the improved job market for lower-skilled workers appears to be having a modest effect. More notable is the continued loss of households from the income categories in the middle of the distribution, and the shifting of households into the top two categories, especially the highest income category. While these shifts are not as great as those observed from 1979 to 1989, they do suggest that further overall increases in household income inequality have taken place since 1990. These more recent shifts have not been tempered by an increase in real income, which improved everyone's economic well-being, such as occurred from 1979 to 1989.

The national pattern of the recent redistribution of households may mirror the pattern observed from 1979 to 1989, but it is likely that the local variability in changes in household income distributions will continue. We also expect that the overwhelming pattern of increasing inequality at the local level will occur because of a reduction in the share of households at or just above the median household income, and more households moving into the top income categories. Inequality will increase because incomes will continue to accrue to those in the top income categories. Given the lack of any marked increase in inflation-adjusted median incomes, there is little evidence that those households at the bottom of the income distribution have experienced any real improvement in economic well-being. They have generally remained stagnant.

These two patterns of shifts in household incomes indicate a declining middle class, especially among households just above the median household income, leaving a more bifurcated distribution of income among households. This bifurcation suggests continued disagreements about the appropriate role of federal policy in the economy among those representing households and individuals who do and do not benefit from current trends of income concentration. It also hints at the potential for more conflict at the local level as the needs of those at the lower end of the income distribution differ from the wants of the increasing share of households at the very top of the income distribution. The relative political and economic power of these groups of households in different localities will determine the ultimate direction and form of local land use, service provision, and social and economic development.

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