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Working Paper Series

Restructuring & Worker Displacement
In The Midwest

Paul Ballew, Don Pemberton and Robert Schnorbus

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As the economic process of globalization continues, adjustments in organizational processes and operational activities continue at an accelerated pace. A key component in this ongoing reorganization is the shift of inputs among industries and regions. The major impact of this shift is on the mobility of one input in particular, labor. Typically, labor is the least mobile input in the production process and the current environment may be further complicated by new rigidities in the labor market. The areas in the labor market where these problems may be the greatest are in the blue collar segment, which has experienced the greatest amount of restructuring over the last few decades. The characteristics of the labor force in the blue-collar segment are also likely sources of inflexibility, given such factors as traditional union strength and specialized skills. Consequently, public policy initiatives to assist these workers (and others) adjust between jobs have received increasing priority.

Issues associated with labor mobility, however, entail more than just reemployment. Even in the blue collar segment, the U.S. economy has displayed surprising ability to rejuvenate itself, facilitating the process of reemployment through job creation and movement of labor. However, economic mobility must also entail an analysis of the wage, income and other socio-economic adjustments that accompany changes in labor markets. In essence, what is happening to economic well-being is of greater interest than just what is happening to employment and reemployment. For the U.S. over the last twenty years this broader consideration of economic mobility has raised many salient questions. Among these are traditional short-term economic questions associated with labor market flexibility, namely temporary reductions in wages and income and the costs associated

The views expressed here are those of the authors and do not necessarily represent the views of the Federal Reserve System. Paul Ballew and Robert Schnorbus are economists of the Federal Reserve Bank of Chicago and Don Pemberton is associate professor at the University of Detroit-Mercy.

with mobility. More recently questions have begun to shift toward long-term issues related to a growing segment of the population that is falling behind economically in relation to the rest of society. The purpose of this working paper is to review the issues of displacement and reemployment that have faced workers in the Midwest over the last decade.

Substantial Changes In The Economic Environment

For the Midwest, as well as the nation, structural changes over the last few decades involve substantial shifts of resources among and within industries. These changes resulted from a number of forces. From the broadest standpoint, the changes are related to the emergence of an economy that is characterized by a shift toward the service sector, ongoing and constant restructuring in the manufacturing core, globalization of previously (partially or wholly) insulated domestic markets, and increased technological development and enhanced factor mobility. These sweeping changes have greatly altered the Midwest economy. For instance, the region's employment levels in manufacturing have declined significantly, while employment in services has increased--albeit at a slower pace than the nation (figure 1 and 2 detail the shift in employment from manufacturing industries to service industries). Core industries, such as autos and steel, have downsized. Conversely, service industries and exports have become increasingly important to the regional economy--to the point of becoming drivers of growth in the region.

One of the primary factors facilitating the transformation of the Midwest economy is the increased "globalization" of industries and markets. Current developments in the global economy encompass a general environment where trade liberalization is not only a goal, but increasingly a reality. Global developments of the last decade have been quite amazing. Economic convergence among industrialized countries (especially the newly industrialized countries in Asia), the Auto Pact between the U.S. and Canada (followed by the free trade agreement) and the volatility of the U.S. dollar exchange rate in the 1980s were impacting the U.S. and Midwest economies. One of the most startling changes has been the movement of the U.S. economy away from a period of stability and limited external commerce (1950s and 60s) to a period of instability and increasing integration (1980s and 90s). (Figure 3 details the share of trade for the U.S. as a percent of GNP-

-note the level has increased four fold since the 1960s.) Recently, the passage of the North American Free Trade Agreement (NAFTA), the completion of the Uruguay round of trade liberalization talks, the emergence of market economies in Eastern Europe and the rapid industrialization of China should remind us that economic adjustments will continue, if not accelerate into the 21st Century.

In theory, expanded trade adversely affects factors of production in industries that are at a comparative disadvantage in world markets. In the short run, these industries find profits, employment opportunities and wages falling. The Heckscher-Ohlin-Samuelson model predicts that a country's comparative advantage is in those industries that use a country's relatively abundant factors of production most intensively. Studies indicate that expanded U.S. trade would in the long-run increase the demand for and return to such factors as skilled labor, while employment opportunities and wages would likely fall for lower skilled workers. In addition, firms and industries that have domestic monopoly power and were insulated from foreign competition by trade barriers would find factor returns falling to competitive equilibrium levels as barriers to trade are removed.

In terms of North American economic integration, for example, some job displacement is likely from plant closings and/or movements of manufacturing facilities into Mexico. The loss of low-skilled and semi-skilled jobs and/or reductions in wages with this movement continues to be a real difficulty to addressing further integration of economies and will likely continue to dominate policy debate on free trade into the future.¹ The benefits from a more efficient reallocation of inputs along the lines of comparative advantage and the resulting closing of less efficient facilities has long been held as a potential offset to worker displacement. Yet, if labor markets are not highly flexible and/or if other factors make the transition lengthy, the adjustment process may prove to be difficult for those who are not equipped to find new jobs. For instance, if the domestic environment involves slow economic growth with minimal increases in employment, the shock from market adjustments can be extreme and--for many workers--permanent. Similarly, if labor markets are operating at a less than efficient level and/or skills gaps and other structural factors are prevalent, the adjustment process will prove cumbersome, especially with regards to certain regions (the Midwest) and labor force segments (e.g. low skilled workers).

One of the major questions associated with the adjustment process is the increasing imbalance between increased mobility of capital (and business) and the continued relative immobility of labor. As these trends diverge, the costs for society will intensify. Domestic policy actions may intensify the negative repercussions associated with this imbalance. Job displacement, either temporary or permanent, is much more likely, the greater this imbalance becomes.

Finally, the economic impacts of displacing workers and businesses may vary by regions. Besides displacing workers and industries, liberalization may impact regions or areas of the country with wide disparity. Regions where import-competing industries are concentrated may be adversely affected, while other regions with export-oriented industries could experience strong economic growth. The economic and social costs of those regions being adversely affected may be high, as evidenced by the difficulties in the Midwest's manufacturing base over the last twenty years (figure 4 shows the change in real wages over the 1980s by state-- both employment and real wages indicate the relatively poor economic performance of the region in comparison to the nation over the last two decades).

Allocating resources in line with changes in comparative advantage, shifts in consumer preferences, and technological change are essential to economic growth and rising living standards. However, this is not the frictionless process often assumed in textbook examples of international trade and economic growth. Resources dislocated in shrinking import-competing industries may not be the type of resources demanded in expanding export or emerging growth industries. Of all of the problems and concerns regarding this adjustment process, none are more pronounced than the plight of labor adversely affected by job loss. Job loss, wage cuts and the real costs as well as sights of community decay are clear obstacles to change. Economists generally assume that the long-run benefits from economic change more than offset the short-term adjustments costs. Concerns over these costs are not viewed as a justification preventing further trade liberalization. However, these costs can not be ignored, and the adjustment process and alternative policy options must be examined. Adjustment costs can represent both economic and political impediments to change. To the extent that these costs are ignored, specific individuals and regions bear the full burden of economic change. If the adjustment process is stopped, then society bears the burden of slower growth and a lower standard of living. Therefore, to reap the full benefits from economic growth and comparative advantage, it is essential that policy makers fully explore and understand the dimensions of the adjustment

problem and develop policy alternatives that increase labor mobility and reduce the social costs of resource reallocation.

The Question Of Reemployment

A key question to be considered in the adjustment process is the reemployment of displaced workers. Too often reemployment is viewed theoretically as a relatively frictionless process, where inputs are assumed to be homogeneous factors of production employed in competitive markets characterized by fully flexible wages and prices. In the absence of lags in reallocating resources, unemployment is not a problem and the benefits from the efficient use of new technology or from the reallocation of resources are substantial. In the real world, however, impediments do exist, especially with regards to the mobility of labor. While economists debate both the reasons for and the nature of lags in the labor reemployment process, few deny their presence.

Accepting the argument that labor markets are not perfectly flexible does not mean that labor market flexibility does not exist. In fact, the U.S. economy has demonstrated considerable ability both to create new jobs for an expanding work force and to reemploy unemployed workers. Over the last two decades the percent of the working-age population that is employed has increased from approximately 60% to over 66%, and the overall labor force has increased by 53% (primarily due to the entry of women into the work force). During the same period the U.S. economy has generated (net) over 38 million jobs. In addition, in some months 2% of the workforce became unemployed and in some years over 25% of the nation's workers moved to new jobs. These changes are impressive given an unemployment rate below 6% in the late 1980s. In the manufacturing sector, the Department of Labor estimates that 10% of jobs turnover annually. This level translates into 2 million jobs annually. Consequently, overall labor market flexibility, at least superficially, appears fairly sound in spite of the dynamic changes occurring in the economic environment.

Yet, specific concerns over labor flexibility still exist. One primary concern is the degree of displacement occurring in this dynamic economic environment. The Department of Labor indicates that the U.S. economy currently is experiencing the highest level of permanent job loss since the tracking indices were established in 1967. Workers classified as displaced are growing in number and experiencing extended periods of unemployment. For example,

in the January 1992 survey prepared by the Department of Labor, over 12.3 million workers had been displaced over the previous 5 years. Half of these workers had more than 3 years seniority at the time of job loss. Unfortunately, over half of these workers are still currently unemployed or have experienced significant income loss one year after being displaced. The current number of workers classified as displaced represents the highest absolute number in history.

An additional concern is the changing nature of lay-offs. Traditionally, the split between temporary and permanent lay-offs during cyclical periods has been fairly even, with almost half of all workers returning to their previous position after the economy began picking up steam. In the current environment this pattern has apparently been broken. For instance, the Department of Labor estimates that 76% of all job losses in 1992 were permanent, a level which is the highest ever recorded. The degree of economic adjustment during the current cycle adds to concern over labor market flexibility. With less than 25% of those who lost their job in 1993 returning to their old firm, worker flexibility is at a premium (Reich). Not surprisingly, this level is, unparalleled in the nation's history. Additionally, the majority of workers laid off must switch not only jobs but industries. For instance, in the latest Displaced Worker Survey in 1992, over half of all workers who experienced displacement changed industries (Gardener). This process is far more complicated than past movements between firms and necessitates additional adjustments on the part of labor to become reemployed.

Also, employment opportunities are much greater for some groups than for others. For instance, inner city residents, high school graduates and younger segments of the population experience more frequent unemployment and for a longer duration. In 1993 the unemployment rate for non-high school graduates was 10.7%, compared to 6.2% for high school graduates and less than 3% for college graduates. The unemployment rate for inner city residents has been in excess of 10%, and for some categories of workers above 20%. Another concern is the increase in structural unemployment. Although estimates will vary, the level of structural unemployment has increased over the last few decades. The Bureau of Labor Statistics estimates that the percentage of persons unemployed for 6 months or more as a percentage of total unemployment has increased from just over 10% in the 1950s to 16.5% in the 1990s.

The Question of Economic Dislocation

In addition to the question of reemployment are questions regarding the nature of jobs, wages and the underlying changes in the labor market. For example, besides frictional and structural unemployment, income distributional changes are likely to result from the reemployment process, since relative wage changes are often necessary to reemploy labor. If labor skills are demanded in different proportions in expanding industries than were unemployed in declining industries, then a substantial change in relative wages may be required to facilitate reemployment. Specifically, in the context of this study, the question is whether or not structural shifts in the Midwest economy over the last twenty years have resulted in relative and real economic regression for those segments of the population that have experienced displacement.

A number of studies have noted substantial long-term earnings declines for workers in many occupations. A Congressional Budget Office study in 1992, analyzing displaced workers during a period of one to three years after job loss, reported substantial hardship for some workers (CBO). The report found that most workers sustained losses of both income and fringe benefits provided by employers. The study also indicated substantial variation among workers according to education and tenure, with the impact on certain segments being very severe.

Other studies provide similar results of the harmful impacts of displacement on workers. A survey of highly tenured workers in Pennsylvania found that workers continued to suffer earnings losses even six years after separation (Jacobson, et. al.) Additionally, in tracking workers during the 1980s, most studies concluded that on average re-employed workers experienced wages declines of 5-15% (Hamermesh). One primary concern in this regard has been with the traditional manufacturing base--a base that paid low-skilled and semi-skilled workers high wages, relative to comparable workers in other industries.

Available data confirm these long-term shifts in economic and social well-being in society. For example, as indicated in figure 5, over the last twenty years substantial employment losses have incurred in core manufacturing industries with above-average wage and benefit structures. Employment in the automotive, steel and machinery segments of the market has fallen by over 800,000 jobs since 1970.¹

For the Midwest, the declines have been even more severe. All three core industries referenced above have traditionally been centered in the region and, therefore, the Midwest bore the brunt of the adjustments. Manufacturing employment on a national level has been flat over the last decade (although the shift has been due to gains in lower paid categories.) Conversely, in the Midwest manufacturing employment has never recovered to pre-1980s highs and remains at a level only 85% of its previous highs. (The impact has also been felt in terms of wages. In Detroit manufacturing wages have consistently fallen from a 1960 level of +140% of the national average to a current level of approximately 120%.) The concern over workers in the goods-producing sector of the economy is significant due to the fact that they are three times as likely to face displacement as their service sector counterparts (CBO). In fact, traditional blue-collar workers throughout the 1980s represent over half of all workers displaced annually--a high level, given that these workers represent only 1/5th of the workforce.

Additionally, the Office of Technological Assessment (OTA) estimates that production and non-supervisory workers earnings in comparison to total workforce earnings have declined substantial from their peak in 1972 (OTA). Given the economic adjustments in many of these sectors, earnings declines--both in real dollars and relative to other industries--are not surprising. Wage reductions are found in many manufacturing industries. For instance, wages in the auto supplier base have fallen from 80% of Big 3 union-negotiated levels to a current ratio of 65%. The primary driver of this shift has been the movement away from unionized firms concentrated in the Midwest.

A final problem for the manufacturing worker is that unemployment has become more difficult to reverse. Figure 6 gives an estimate of the duration of unemployment for workers in different segments of the labor market. Workers in manufacturing experience longer periods of unemployment than non-manufacturing workers. Other studies find that, while over half of all unemployed workers in non-cyclical years who find re-employment experience earnings losses, the losses are greatest in the manufacturing sector (Podgursky). One of the primary drivers of these shifts has been the stagnant and declining wages for most manufacturing sectors. As noted in figure 7, real wages for many manufacturing categories have declined over the last twenty years. This decline has intensified in recent years in some core manufacturing sectors.

The impact of these changes and other structural adjustments appear to have been severe. These results may partially explain the growing gap in income concentration in the U.S. over the last twenty years. Although one must account for changes occurring in family structure, especially the proliferation of single parent families, there is little doubt that structural changes in the labor markets are a contributing element. One way of viewing this impact is that traditionally the employment and income opportunities for semi-skilled and unskilled workers in manufacturing provided a safety net for less educated workers. Unfortunately, in the current environment the safety net has become frayed. A by-product of these developments is that income levels have become increasingly concentrated among population groups in society. As illustrated in figure 8, the Gini coefficient for the U.S. has increased significantly over the last twenty years. (Similarly shares of aggregate income have become increasingly skewed, with the lower 40% of the population losing ground in relative terms.)

A portion of the skewing of income distribution is reflected by recent developments in the economic well-being of workers actively employed. Compensation received by full-time employees is perhaps a better gauge of the shifts occurring in the marketplace, due to the erosion of manufacturing jobs and other semi-skilled categories. As portrayed in figure 9, low-wage earners in the U.S. currently make on average only 38% of the median wage--a sharp contrast to high-wage earners whose earnings exceed 200% of the median level. A large portion of this slippage can be explained by the increasing wage regression for many full-time workers. As indicated in figure 10, the number of full-time workers who are classified as having low annual earnings has increased to over 15%. The number of workers with low annual earnings had been declining since the 1950s, but the share has increased throughout the last twenty years. More importantly the share for some minority groups has increased at a faster rate than average. For instance, the number of full-time African-American workers with low annual earnings is currently in excess of 25%. (Traditionally manufacturing sectors have employed more minority workers than the economy as a whole.)

The increase in full-time workers with low annual earnings has also been concentrated in educational categories below the college level. As indicated in figure 11, the level for non-high school graduates by 1990 was in excess of 30%--a level well above the 20% ratio in 1970. Likewise for high school graduates the level was almost 20% by 1990--a level which has increased by 80% since 1970. (The level for workers with some college training continues to run below 10%, and college graduates is below 5%.) Also, the ratio of

annual earnings for non-college grads to college graduates has fallen throughout the last two decades (figure 12). The ratio for high school graduates has fallen to less than 55%, while non-high school graduates have fallen below 50%. This ratio has declined in large measure due to the relative slippage for non-college graduates. The OTA estimates that real wages for non-high graduates fell 23% between 1979 and 1991 (OTA).

Not surprisingly a portion of the earnings weakness for manufacturing and low skilled workers relates to the frequency of unemployment. For instance, a number of studies have indicated a strong correlation between education and both job loss and unemployment duration (Farber). One distressing element of this analysis is the fact that the search for full-time employment in particular appears much more difficult the lower the educational attainment level. Also the impact of displacement on these groups is, as expected, more severe. Examinations of the data from the Displaced Workers Surveys supplement to the CPS indicate a consistent earnings decline for displaced workers in certain industries and educational levels (Swaim & Podgursky). In fact, the pool of displaced workers which sustain substantial earnings decline after re-employment (about one-third of all displaced workers) are concentrated in lower educational categories.

Given the acceleration of these trends over the last few decades, a number of issues become very pertinent. First, the severity of future displacement may intensify, given the dynamic changes shaping the U.S. and world economy. Secondly, labor market rigidities and other problems will be exposed at an accelerating rate, given the intensity of the internal and external market pressures. And finally, the future challenges for the U.S. may be intensified by current problems in the educational system.

Concluding Remarks

Over the last few years labor market problems have intensified well beyond what anyone would have expected from a period of slow economic growth. In this environment many questions continue to persist, including most importantly how to facilitate adjustment on the part of individuals whose economic viability is threatened. Additionally, the trends of the last few decades exhibit few signs of dissipating. Instead intensification is probable and, therefore policy questions will continue to surface. First, the severity of future displacement may intensify, given the dynamic changes shaping the U.S. and global economy. Secondly, labor market rigidities and other

problems will increase at an accelerating rate, given the intensity of the internal and external market pressures. And finally, the future challenges for the U.S. are being intensified by current problems in the educational system.

Footnote

¹See Hufbauer and Schott for a discussion regarding the impact of NAFTA on jobs and wages in the U.S.

²An example of the past and current adjustments comes from the domestic auto industry. All three of the domestic nameplates have reduced employment by 45% since 1979. Likewise employment reductions in the supplier industry exceed these adjustments.

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Figure 1

Total nonfarm employment trends: Midwest vs. U.S.



Figure 2

Manufacturing employment trends: Midwest vs. U.S.

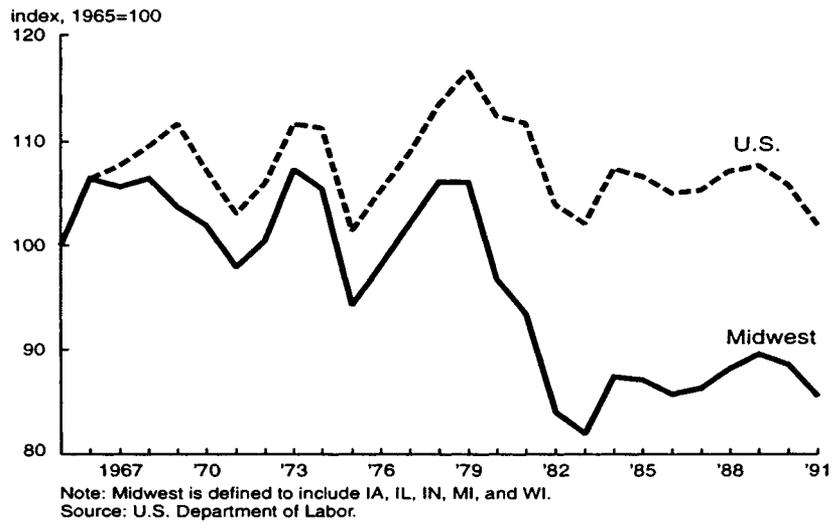
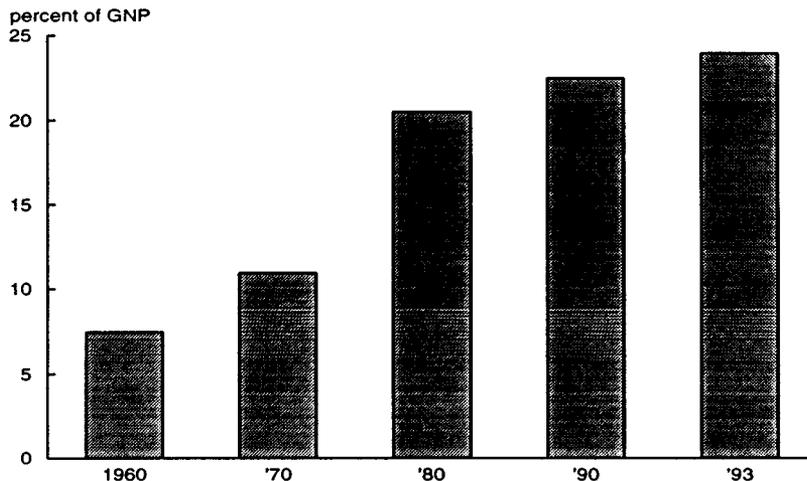


Figure 3

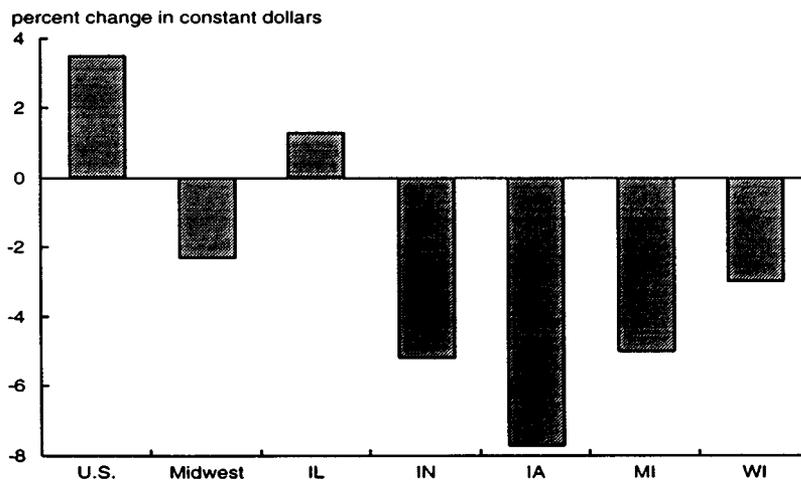
Trade in goods & services as a share of GNP



Source: General Agreement on Tariffs and Trade.

Figure 4

Comparison of manufacturing wage growth by state: 1980-90



Source: U.S. Department of Commerce.

Figure 5
Employment levels in key manufacturing industries

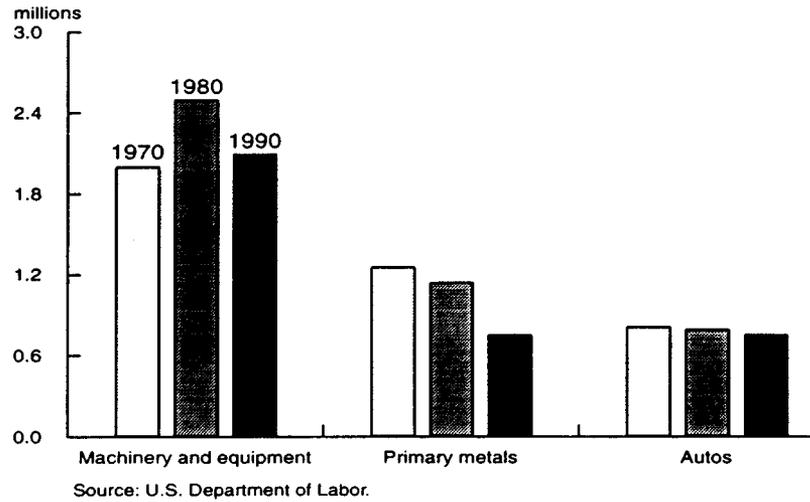


Figure 6
Duration of unemployment for displaced workers: 1979-90

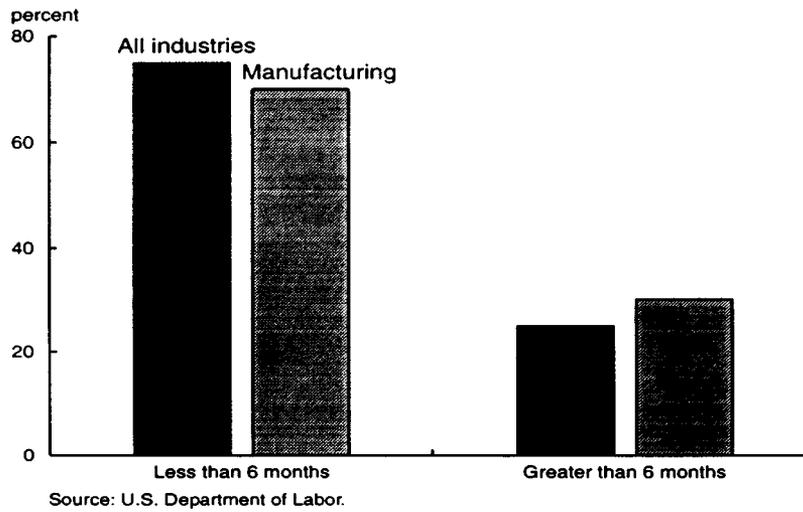
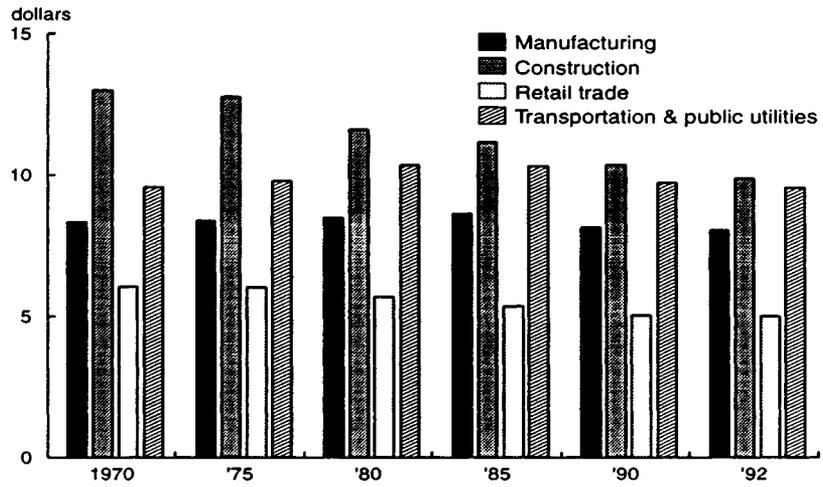
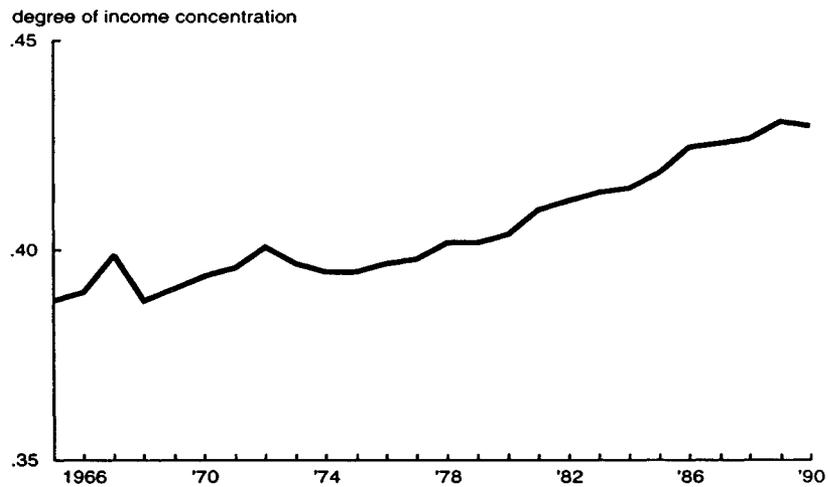


Figure 7
Average hourly earnings by industry



Source: U.S. Department of Labor.

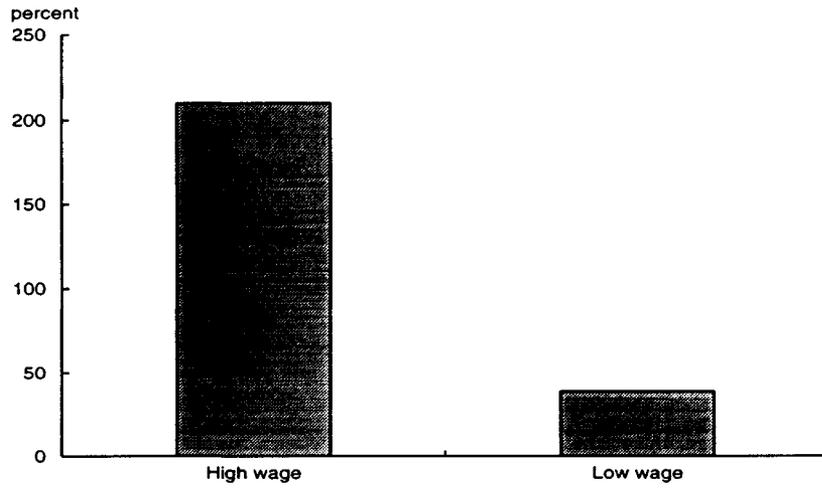
Figure 8
Trends in income concentration in the U.S.--Gini coefficient



Source: U.S. Department of Commerce.

Figure 9

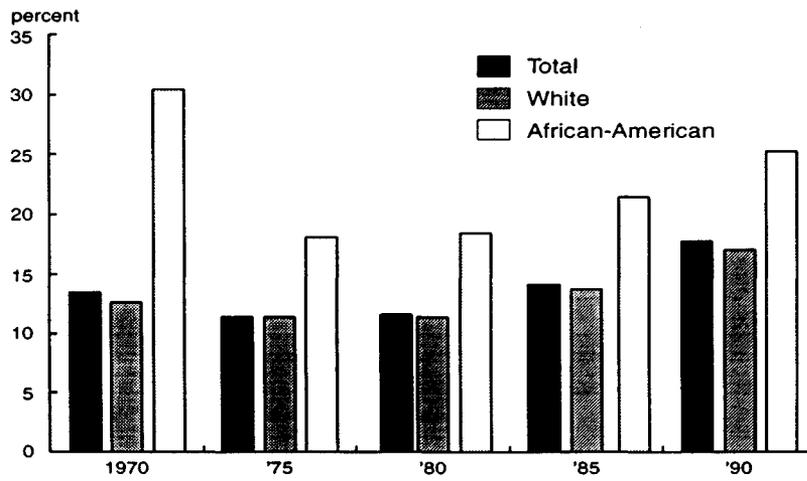
Comparison of high-wage and low-wage workers relative to the median: 1993



Source: Richard Freeman, Harvard.

Figure 10

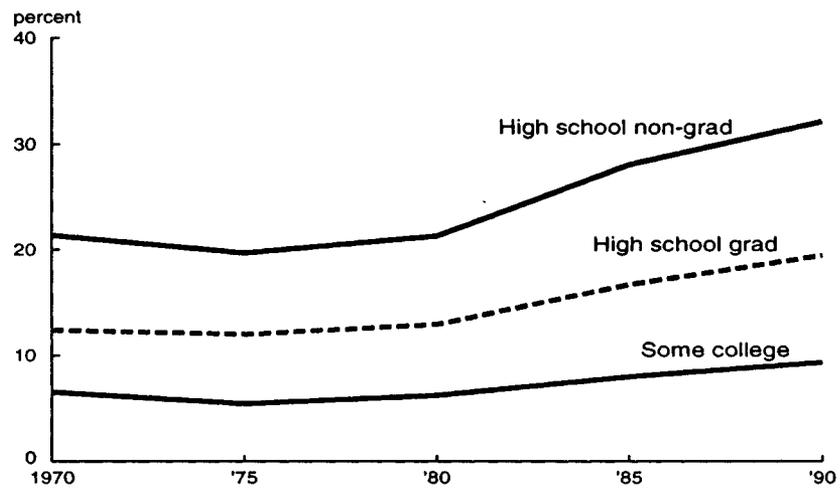
Proportion of full-time workers with low annual earnings by race



Source: U.S. Department of Commerce.

Figure 11

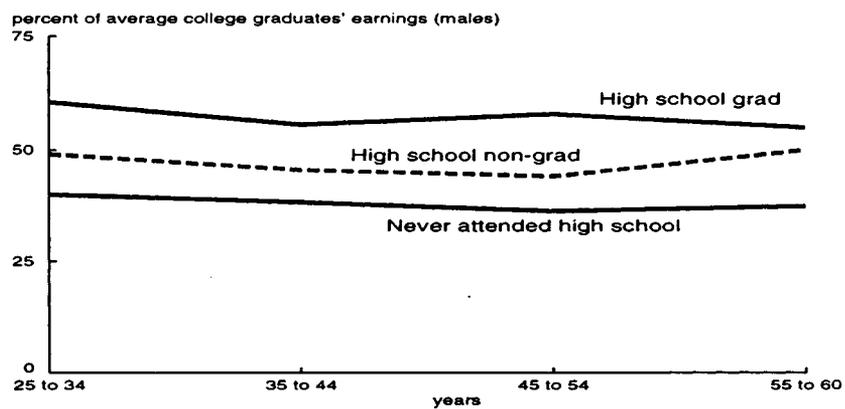
Proportion of full-time workers with low annual earnings by education



Source: U.S. Department of Commerce.

Figure 12

Comparison of average earnings by age category:
non-college vs. college graduates--1992



Source: U.S. Department of Commerce.

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