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TROUBLED WORKERS IN THE LABOR MARKET

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ABSTRACT

This paper seeks to discover the criteria by which workers are judged to be "troubled," to examine the severity of the economic problems facing "troubled" groups, and to determine whether the condition of these people is relatively permanent or the result of transitory setbacks. The paper provides a broad overview of some of the literature on troubled groups in the labor market, and puts forth several basic propositions about those having trouble in the labor market. Among these are the fact that many workers at the bottom of the income distribution are permanently plagued by problems of low earnings, that workers who drop substantially in the earnings distribution do not recover their previous economic positions, and that personal, unobserved characteristics are important factors in the labor market problems of individuals. Another finding is that areas with high rates of unemployment tend to experience these rates for a decade or more, classifying most regional differences in unemployment as permanent rather than transitory.

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TROUBLED WORKERS IN THE LABOR MARKET

The Trade Assistance Act, the Area Redevelopment Act, the Comprehensive Employment and Training Act (CETA), various equal employment laws, and other Government programs have been developed to help people having trouble in the job market. These people include displaced workers from the shoe, automobile, and electronics industries; older persons who have lost their jobs; workers in declining communities; low-wage workers in the rural South; working women who are heads of households; and low-wage black and Hispanic workers. All these groups and others have been cited at various times by various observers as being likely to benefit from social programs to alleviate their problems in the labor market.

By what criteria are workers judged to be "troubled"? How serious are the economic problems facing "troubled" groups? Is the condition of these people relatively permanent or the result of transitory setbacks?

This paper seeks to answer these questions. It examines evidence on the dimensions and nature of the "troubled worker" problem and on the reasons for the problem. It reviews a variety of studies that focus on troubled groups in the job market and presents a new analysis of the Panel Survey of Income Dynamics, a longitudinal survey covering approximately 5,000 families from 1967 to 1979 (University of Michigan Survey Research Center). Because the problems of youth employment have been dealt with in detail elsewhere (Freeman and Wise, 1981) this paper addresses only the problems of adult earners, age 24 and above.

The literature on troubled workers differs in several respects from that on many other economic subjects, because evidence and hypotheses about behavior are derived from more diverse sources. Some of the most intriguing ideas--those relating to the "dual labor market" (Doeringer and Piore, 1971)--were obtained by direct observation rather than by theorizing about the operation of a competitive economy or by manipulating computer data files. Controlled experiments have also examined the nature of the problems facing troubled workers. At the same time, researchers have performed statistical analyses of cross-sectional data sets and, to a greater extent than is common in other areas of research, of longitudinal data sets as well.

This paper provides a broad overview of some of the literature on troubled groups in the labor market. It seeks, so far as possible, to avoid the interpretive debate between

the "dual labor market" and "human capital" analysis that runs through much of the literature, and tries instead to concentrate on empirical findings, regardless of their source. A first step in evaluating various theories is to "get the facts straight."

Section 1 explores alternative concepts of troubled workers and seeks to show how the resultant universe of need varies with definition. Section 2 considers the correlates and causes of the problems. Section 3, the most extensive part of the study, reviews evidence on five groups of workers often cited as having problems in the job market. Section 4 is a brief conclusion.

The principal results of the analysis can be summarized in 11 basic propositions about workers, and groups of workers, having trouble in the job market:

1. Many workers at the bottom of the income distribution are permanently plagued by problems of low earnings. If "permanently disadvantaged" is defined as being in the lowest decile of the male earnings distribution for 70 percent or more of the time over a decade, about 5 percent of working men who are heads of households are "permanently disadvantaged." And 60 percent of women household heads who are in the labor force in any given year are in the lowest earnings decile for men. The existence of this group reflects the predominance of a permanent rather than transitory earnings in the American earnings distribution.

2. Although many workers who lose their jobs (or otherwise suffer from sudden declines in amount of time worked or in wages earned) recover successfully, workers who drop substantially in the earnings distribution do not recover their previous economic positions. That is, large declines in earnings have a substantial permanent as well as transitory component.

3. Low wages and lack of work taking the form of few weeks worked both contribute to placing an individual at the bottom of the earnings distribution. Surprisingly, perhaps, low wages appear to be the more important cause of permanent economic disadvantage.

4. Low-earning workers have certain distinct characteristics. For the most part, they are black, poorly educated, relatively unskilled, female, and located in certain industries. Regression analysis designed to predict the composition of the troubled group based on the objective characteristics, however, is less accurate than simply taking a random selection of workers who were ever in the bottom decile. This fact highlights the importance of personal, unobserved factors in the labor market problems of individuals.

5. The classic labor market adjustments to economic difficulties--mobility of supply, growth of demand in response to availability of labor, and changes in wages--appear to be reasonably efficacious for displaced workers, for depressed communities, and for most older workers with job market troubles. Similarly, economic developments in the 1970's helped improve the positions of black and Hispanic workers. The situation for women heads of households, however, shows little evidence of change, and sluggish economic growth has meant that persons at the bottom have hardly improved their absolute earnings.

6. Economic growth raises the labor market earnings of all groups, including disadvantaged workers. It significantly improves the relative earnings and employment chances of blacks and, to a lesser extent, women. Although the absolute level of the earnings of all groups is raised by growth, the earnings distribution itself is only modestly affected; therefore, growth does little to improve their relative position.

With respect to specific groups of troubled workers, the evidence indicates the following:

7. Perhaps the group with the most serious labor market problem is working women who are heads of households. Their annual earnings place them in the bottom decile of the earnings distribution for men to a greater extent than any other defined group. Unlike blacks, whose median wage and salary earnings have risen rapidly in the past two decades, women have not fared well, although nonwhite women have closed the gap between themselves and white women.

8. Economic changes affecting the black community in recent years have substantively altered the nature of the labor market problem for blacks. A significant proportion of black men have made considerable economic advances; at the same time, however, the labor participation of black men has fallen, creating a disparity between those holding jobs in the mainstream economy and those outside the mainstream. Traditional equal employment activities do not seem to offer a route out of economic distress for many less skilled black workers. For Hispanics, lack of education and lack of skills appear to be the most important deterrents to economic progress.

9. While most displaced workers manage to recover their jobs or to obtain good jobs elsewhere, time worked and real wages fall noticeably for many workers as a result of displacement. In some cases, it appears that workers who lose jobs for reasons related to foreign competition suffer more serious earnings declines than do other job losers, perhaps because of

especially severe and permanent declines in their sectors. The losses in earnings are large enough to reduce the workers' position markedly in the earnings distribution.

10. Although the positive cross-sectional relationship between age and earnings may make claims that older workers are a troubled group seem incorrect, older job losers do appear to have significant problems, such as protracted unemployment, lower wages upon receipt of new jobs, and fewer hours worked. Health problems seriously impair the earnings of some older workers.

11. Areas with high rates of unemployment tend to experience these rates for long periods, a decade or more, making most regional differences in unemployment permanent rather than transitory. These differences appear to be at least partially compensated for by higher wage rates, although the extent to which persistent unemployment is in excess of that consistent with equilibrium compensating differentials is unknown. "An area of high unemployment and low wages" is a better definition of economically troubled areas than the current definition based solely on high unemployment rates.

1. The Problem: Concepts and Definitions

As already indicated, many groups of workers have been cited as facing serious troubles in the job market. Two basic criteria are used to label workers as troubled. The first focuses on levels of earnings, with workers having low earnings viewed as being troubled. Following common nomenclature, we call these workers disadvantaged. The second definition focuses on workers suffering significant earnings losses, even though their initial earnings may be relatively high. These are generally workers who lose their jobs. We call them distressed workers.

The two definitions yield different pictures of who is in trouble. Conceptually, since workers with very low earnings have little to lose, they are rarely likely to qualify as troubled by a loss criterion, whereas workers with high earnings are potentially vulnerable to large losses that still leave many of them with reasonably high earnings.

The extent to which one worries about workers with low earnings or with significant losses of earnings depends on two aspects of their economic position: Its permanent or transitory nature, and the extent to which the individuals or their families have other income in the relevant period.

The Permanent/Transitory Issue

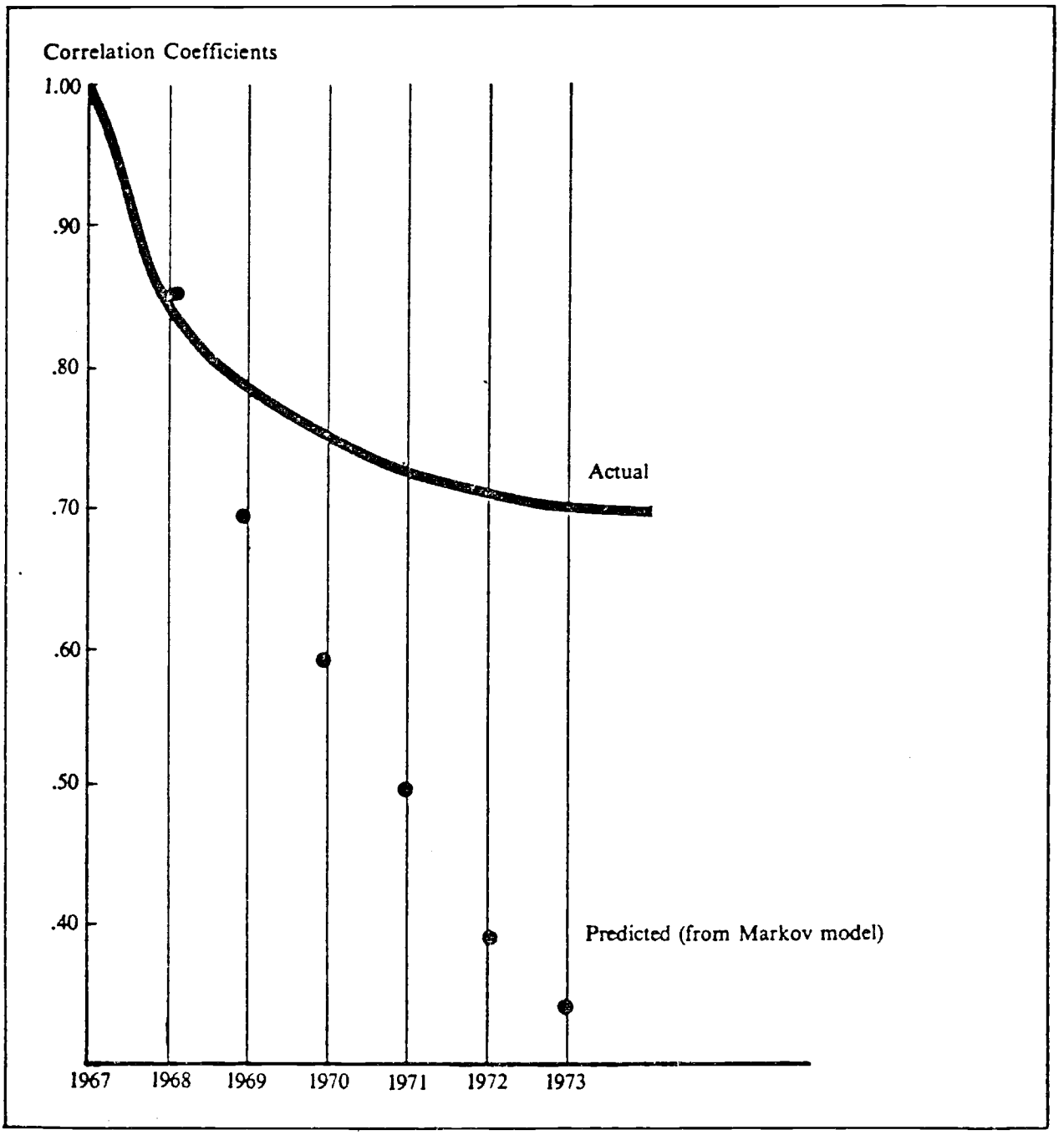
The distinction between permanent and transitory income, originally developed by Friedman and Kuznets (1954), is central to identification of real problems in the job market. Workers with low earnings because of transitory difficulties, who will receive large increases in the future, are not in the same category of economic trouble as workers with permanently low earnings.

How permanent or transitory is the earnings distribution, particularly at the lower end? The principal study investigating this question was done by Lillard and Willis (1978). They found the earnings distribution to be dominated by its permanent component to a degree that may surprise some readers. In particular, Lillard and Willis found that the correlation coefficients between earnings in one year and earnings in ensuing years was high initially (about 0.8) and declined only modestly (to about 0.7 after 6 years) among male heads of households (see figure 1). This persistence yields an estimate that 73 percent of income differences among individuals is permanent and 27 percent is transitory. Lillard and Willis further estimated that 65 percent to 73 percent of the permanent component of income differences was attributable to measured characteristics of individuals.

For poverty groups, their study showed that although only 15 percent of white and 35 percent of black workers expected to be below the poverty level in all 3 years of a given 3-year period, the chance of being in poverty was greatly affected by being in poverty during previous years. A white in poverty in one year has a 37 percent chance of being in poverty the following year, compared with a 1.7 percent chance if the worker had not been in poverty earlier. For blacks, the differences are 60 percent and 4.3 percent, respectively.

As part of this study, I have examined the Michigan Panel Survey of Income Dynamics (PSID) and obtained results consistent with Lillard and Willis. Table 1 provides a summary of my PSID results. It shows the number of appearances in the lowest deciles for male heads of households. The permanent nature of low earnings for a large number of workers is evident. During the decade covered, while only 1.3 percent of those at the bottom decile were at the bottom every year, 5.1 percent were at the bottom in all but 3 years. A definite group is located permanently at the bottom of the earnings distribution. In 1969, this group's earnings averaged $3,511 a year; in 1978, its average earnings were $5,679. Note that the 62 percent increase for the group is considerably below the 78 percent rate of inflation in the period.

Figure 1. Actual and Predicted (from Markov model) Correlation Coefficients for Log Earnings Between the Years 1967-73*



*Adapted form Lillard and Willis (1978), p. 993.

Although I stress the permanent nature of earnings, other analysts (Coe, 1978; Levy, 1976) looking at the same or similar data have stressed the substantial year-to-year changes in economic status. In part, this difference is a question of whether the water glass is half empty or half full. But it also is a question of whether one focuses on earnings of individuals or on family incomes. One of the most striking findings of the Michigan PSID analysis is that changes in family incomes, and thus poverty status, are affected more by changes in family organization than by changes in the earnings of family heads (Duncan and Morgan, 1981, p. 2). This result suggests greater instability in family incomes than in individual earnings, which is consistent with a relatively permanent earnings distribution.

The data underlying table 1 also permit us to examine the status of workers who suffer significant income losses. Table 2 shows how these workers fare several years later. Part 1 shows that almost 14 percent of male workers experienced declines of two or more deciles. Part 2 shows that for workers who are big losers, most do not readily recover their positions, while parts 3 and 4 show that for workers who maintained their decile position from 1969 to 1972 gains and losses in the ensuing period left them in roughly the same position from 1972 to 1977. On average, those who suffer large losses end up below their initial positions by about one decile after 5 years. This does not imply that job losers necessarily suffer permanent income losses, but rather that large changes in the position of workers in the distribution are partly permanent changes.

For purely transitory shocks, the speed with which workers recover can be estimated using the Lillard and Willis (1978) model. According to their calculations, earnings in one year have a serial correlation of 0.4 above and beyond the permanent income component. This implies that a transitory slip that reduces earnings by 10 percent in an initial year would reduce earnings by 4 percent in the following year and by less than 1 percent 3 years later. Hence, in this analysis the displaced workers essentially recover their full positions in 5 years, assuming all of the slip is transitory.

Thus far we have examined the economic status of male heads of households. What about female heads of households?

Because women earn strikingly less pay than men, and because women may change their status through marriage or by dropping out of the labor force, our analysis for women is different from our analysis for men. First, we use the male deciles as earnings categories and include "out of labor force"

Table 1

Distribution of The Number of Times in Lowest Annual Earnings Decile for Men, 1969-78[a]

Category	Percentage
Never in lowest decile	70.5
In lowest decile:	29.5
1 time	11.1
2 times	4.6
3 times	2.6
4 times	2.7
5 times	2.0
6 times	1.3
7 times or more	5.2
7 times	1.1
8 times	1.2
9 times	1.3
10 times	1.6

a. Weighted distribution using PSID 1979 individual weights, which are the inverse of sampling probability.

Note: The sample consisted of 1,395 men age 24 or over in 1969 and heads of household and labor force participants for the period 1969-78.

SOURCE: Data from all 12 waves of the Panel Study of Income Dynamics (1968-1979), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

Table 2

Distribution of Male Workers Who Fell in The Earnings Distribution By Two or More Deciles

	Category	Percentages
		1969-72
1.	Men Who Fell at Least 2 Deciles in Earnings Distribution,	13.7
	2 deciles	6.9
	3 deciles	3.0
	4 deciles	1.7
	5 or more deciles	2.1
	Average decile drop over covered period	3.1
2.	Positions of Men Who Had Fallen 2 or More Deciles, 5 Years Later:	1969-72-77
	1 or more deciles above 1969 decile	12.6
	No change from 1969 decile	11.0
	1 or more deciles below 1969 decile	76.4
	1 decile	16.2
	2 deciles	27.2
	3 deciles	10.5
	4 deciles	10.5
	5 or more deciles	12.0
	Average long-term decile change	1.9
3.	Proportion of Men Who Stayed in Same Decile in Earnings Distribution, 1969-72	38.1

Table 2, continued

Category	Percentages
4. Positions of Men Who Stayed in Same Decile, 5 years later	1969-72
1 or more deciles above 1969 decile	31.5
No change from 1969 decile	47.0
1 or more deciles below 1969 decile	21.5

Note: The sample was 1,395 men age 24 or over in 1969 and heads of households and labor force participants for the period 1969-78.

SOURCE: Data from all 12 waves of the Panel Study of Income Dynamics (1968-1979), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

or "no longer head" as special categories. Table 3 presents the results of our analysis. It shows a larger degree of permanence at the bottom of the distribution, because the lower absolute level of earnings of women more than counterbalances the enhanced opportunity for "escape" into other states. For women working in all the years, the pattern of correlation is similar to that for men; the fact that women are more permanently in the troubled group does not reflect anything special about their earnings determination process except the mean level of earnings. Because of the shape of earnings distributions, the differences in means between men and women translates into even larger differences in the fraction below a specified cutoff point. Consistent with the results in table 3, Duncan and Hoffman (1981) reported in their analysis of the PSID data that "in any given year, half of the white women and three-quarters of the black women fell into the bottom fifth of the male wage rate distribution..." (p. 86).

The Hard Core Hypothesis

The "half empty" or "half full" question of whether workers at the lower tail of the earnings distribution are there more or less permanently than we would expect can be examined in terms of the recent findings of Clark and Summers (1979). In a series of papers, they have demonstrated that much unemployment in the United States is generated by a small "hard core" of persons who lack work for extended periods. They show that "a large fraction of all unemployment is attributable to persons out of work a large part of the time" (p. 116). Their analysis effectively disproves the view of unemployment as a transitory, turnover problem.

To what extent does the "hard core" hypothesis fit the troubled workers on whom we have focused? Table 4 suggests that, as in unemployment, a small group of men facing permanent economic problems constitutes the bulk of the disadvantaged male worker problem. More than 44 percent of the person-years in the lowest decile are accounted for by 5 percent of the workers "permanently" in the decile. This is, of course, simply another way of documenting the basic finding of longitudinal studies of income distribution: The earnings structure is dominated by its permanent component. Jencks' (1973) conclusion that the income distribution is dominated by luck is simply wrong unless one means "luck" in gaining a permanent income.

Outside Income

Individual workers who are disadvantaged or distressed may have outside earnings or live in families with other earnings. To what extent do these other forms of income place the troubled workers in a higher position in the income distribution than one would otherwise expect?

Table 3

Labor Market Performance of Female Heads of Household[a]

Number of Years in Labor Force, 1969-78	Percentage of Sample in Group	Percentage of Years in Labor Force in Which Annual Earnings Were in Bottom Male Decile	Percentage of Group in Bottom Male Decile, All Labor Force Years
0	34.8	--	--
1	4.4	92.3	92.3
2	3.6	91.4	82.7
3	1.9	82.1	80.2
4	2.7	66.9	42.0
5	3.9	54.3	44.5
6	2.5	96.4	79.7
7	5.4	67.1	39.3
8	6.2	75.0	55.6
9	6.6	60.5	41.6
10	28.1	42.0	20.7
Average Years in in Labor Force	7.5		
Average Percentage in Lowest Decile	60.2		

a. All figures are based on weighted observations. The sample is limited to women who were household heads over the entire 10 year period. In the PSID, 80.8 percent of women who were heads in the initial year (1969) were heads for all of the years, whereas 19.2 percent were not heads for all 10 years.

SOURCE: Data from all 12 waves of the panel Study of Income Dynamics (1968-1979), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

Table 4

Contribution of the Hardcore Disadvantaged
To Male Household Heads in Lowest Decile

	Percentage
Proportion of Total Sample in Disadvantaged Group (7 or more times in lowest decile)	5.2
Proportion of Sample Ever in Lowest Decile Who Are in Disadvantaged Group	17.6
Proportion of Person-Years in Lowest Decile Contributed by Disadvantaged Group	44.2

SOURCE: Calculated from table 1.

To answer this question, I have made the tabulations of the PSID data contained in table 5. This table shows that the families of disadvantaged workers do not receive sufficient outside income to alter their relative position, although they do receive enough to improve their absolute income significantly. In part, this conclusion reflects the fact that the income transfer programs of the government reduce the absolute level of poverty of people at the bottom, as numerous analysts (see Danziger, Haveman, and Plotnick, 1981) have pointed out.

All told, the families of workers identified as disadvantaged by labor market earnings remain in the most serious economic trouble. They are not people who work for low wages because they have large outside incomes; nor are they persons subject to transitory declines in economic status. They are workers who are persistently at the bottom of the earnings distribution.

2. Correlates and Causes of Labor Market Problems

Diverse reasons have been proposed to explain why certain workers have permanent problems in the job market. Some researchers believe that workers at the bottom of the distribution have innately low productivity because of human capital factors. Others believe the problem stems from a lack of "good jobs," that low-wage workers could fill better jobs given the chance. Still others cite discriminatory barriers as a cause of low earnings. For displaced workers, changes in demand conditions due to foreign competition, automation, and similar factors are often cited as causes of problems. Because groups and individuals having market problems differ greatly, different factors are likely to operate on the various groups. In this section, I present an overview of some elements that must be considered in any assessment of causality.

Low Wages Versus Few Weeks Worked

One of the more surprising findings of the poverty research of the past decade was the discovery that a large proportion of families in poverty had household heads working full time year-round. According to this finding, low wages are a major factor determining poverty status.

How many of the permanently disadvantaged persons on the PSID are in that state because of low wages, rather than be cause of few hours worked? Table 6 presents calculations designed to answer this question. It shows the mean wages and hours worked of disadvantaged, distressed, and other male workers in our samples. Perhaps the most surprising finding in

Table 5

Outside Income for Subgroups of The Sample[a]

Category	Mean No.of People in Family	Mean No. of Earners in Family	Total Family Income ($)	Family Income Minus Head's Labor Income ($)	Family Income Minus Head's and Wife's Labor Income ($)
Distressed	4.2	2.2	15,059	5,753	3,212
Disadvantaged	4.0	2.1	7,670	3,560	2,320
Bottom Decile	4.0	2.0	8,200	3,960	2,270
Total Male Sample	4.0	2.1	20,650	5,530	3,130
Female Household Heads in Bottom Decile of Male Earnings Distribution	2.5	--	8,067	4,057	--

a. Weighted distribution using PSID 1979 individual weights, which are the inverse of sampling probability.

SOURCE: Data from all 12 waves of the panel Study of Income Dynamics (1968-1979), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

Table 6

Breakdown of Annual Income By Annual Hours Worked and Hourly Wages[a]

Category	Average Hourly Wages ($)	Annual Hours	Annual Earnings[b]	Hypothetical Full-time, Year-round Earnings[c]
Disadvantaged	2.31	2,226	4,114	5,304
Bottom Decile	2.51	2,056	4,235	5,763
Displaced	4.89	2,078	9,323	11,227
All Men	6.80	2,296	15,125	15,613

a. Weighted distribution using PSID 1979 individual weights, which are the inverse of sampling probability.

b. Although each individual's annual earnings are the product of his average hourly earnings and his annual hours, it is not necessarily true that the mean value of annual earnings for any group is exactly equal to the product of the mean average hourly earnings and the mean annual hours. This accounts for the slight difference between the actual and hypothetical earnings for all men.

c. The hypothetical earnings figure for each group is the product of the group's own mean level of average hourly earnings (as shown in the first column) and the mean level of annual hours for the sample as a whole (2,296 hours).

SOURCE: Data from all 12 waves of the Panel Study of Income Dynamics (1968-1979), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

the table is the extensive hours worked by disadvantaged and displaced workers and by workers in the bottom decile. The column on the far right shows that even if the disadvantaged workers worked as many hours over the year as other men, their year-round earnings would still be quite low, around $5,300. Only a small proportion would rise out of the bottom decile if they worked full time at their current wages.

The importance of low wages in keeping workers at the bottom of the income distribution can also be analyzed by comparing the correlation coefficients for hourly pay with those for time worked. Correlation coefficients for hourly wages and hours worked yield higher correlations for wages, though even time worked shows considerable persistence. A positive correlation also exists in the data between hourly pay and time worked.

Figures for distressed workers tell a different story about the importance of wages and time worked in reducing a worker's position in the earnings distribution. Tabulating the annual earnings, annual hours, and average hourly earnings of workers who fell two or more deciles from 1969 to 1978 (or in any subperiod), we estimated that the average drop in the logarithm of annual earnings between 1969 and the year of their biggest decline in decile position was -0.38. Of this drop, 0.28 points were due to declines in hours worked and 0.10 points were due to declines in wages. This result indicates that for distressed workers much of the problem is due to lack of work rather than low wages.

Characteristics of the Disadvantaged and Distressed

Who are the disadvantaged workers? Who drops in the earnings distribution? Any assessment of the factors causing some workers to end up at the bottom of the distribution and others to experience substantial drops in income requires knowledge of the distinguishing characteristics of the workers.

Although most studies of low income focus on family incomes rather than on individual earnings, analyses of earnings functions and of the determinants of poverty-level wages by Bluestone, Murphy, and Stevenson (1973) and Muller (1977) show results roughly similar to those found in poverty studies. Workers with low earnings tend to be those for whom standard earnings equations would predict to have low earnings, i.e., relatively unskilled workers, blacks, women, and so forth. Table 7 documents this fact with the 1971 Michigan PSID data. The first columns present the coefficients on selected variables in earnings equations (columns 2 and 3) and hours equations (column 4); the last three equations explain who faces serious economic trouble, due to the distress of falling

Table 7

Regressions Coefficients and Standard Errors for Earnings, Hours, and Measures of Economic Trouble, Male Heads of Households, Michigan PSID, 1971 Sample

	Mean [S.D.] of Independent Variables (1)	Dependent Variable = Log of 1971 Labor Income (2)	Dependent Variable = Log of 1971 Average Hourly Earnings (3)	Dependent Variable = Log of 1971 Annual Hours (4)	Dependent Variable = Whether Ever Displaced (5)	Dependent Variable = Whether in Disadvantaged Group (6)	Dependent Variable = Number of Times in Bottom Decile (7)
Mean [S.D.] of Dependent Variable	--	9.208 (0.661)	1.501 (0.589)	7.714 (0.333)	0.637 (0.481)	0.052 (0.222)	1.031 (2.210)
Independent Variables							
Industry dummies (food & kindred deleted)							
Agriculture	.053(.225)	-.567(.027)	-.586(.022)	.025(.016)	-.095(.023)	.304(.010)	2.97 (.088)
Personal Service	.019(.136)	-.224(.025)	-.303(.020)	.041(.014)	.052(.020)	.052(.009)	1.60 (.080)
Retail Trade	.093(.152)	-.157(.018)	-.208(.015)	.037(.010)	.162(.015)	.043(.007)	.595(.059)
Textiles	.016(.125)	-.211(.026)	-.122(.021)	-.087(.015)	.058(.022)	.022(.009)	1.067(.084)
28 Others	--	Yes	Yes	Yes	Yes	Yes	Yes
Occupation dummies (service workers deleted)							
Professional and Technical	.176(.381)	.169(.024)	.273(.019)	-.096(.014)	-.159(.020)	-.006(.009)	-.579(.077)
Managers and Officials	.152(.359)	.289(.024)	.298(.019)	.000(.014)	-.162(.020)	-.007(.008)	-.563(.076)
Self-Employed Businessmen	.074(.261)	-.301(.025)	-.266(.020)	.074(.014)	-.018(.021)	.140(.009)	1.279(.081)
Clerical and Sales	.095(.293)	-.003(.024)	.047(.019)	-.050(.014)	-.043(.020)	.002(.008)	-.263(.077)

Table 7, continued

	Mean (S.D.) of Independent Variables (1)	Dependent Variable = Log of 1971 Labor Income (2)	Dependent Variable = Log of 1971 Average Hourly Earnings (3)	Dependent Variable = Log of 1971 Annual Hours (4)	Dependent Variable = Whether Ever Displaced (5)	Dependent Variable = Whether in Disadvantaged Group (6)	Dependent Variable = Number of Times in Bottom Decile (7)
Craftsmen and Foremen	.213(.410)	.011(.024)	.083(.019)	-.077(.014)	-.080(.020)	.002(.008)	-.263(.077)
Operatives	.161(.367)	-.099(.024)	-.043(.020)	-.080(.014)	-.034(.020)	.061(.009)	.297(.078)
Unskilled laborers, service workers	.074(.262)	-.173(.025)	-.037(.020)	-.143(.014)	-.125(.021)	.071(.009)	.488(.081)
Farmers and Farm Managers	.038(.190)	-.174(.034)	-.355(.029)	.182(.020)	.233(.029)	-.003(.012)	.331(.112)
Age dummies (ages 30-34 deleted)							
24-29 years	.138(.345)	-.097(.009)	-.095(.008)	-.040(.005)	-.031(.008)	.034(.003)	.211(.031)
35-39 years	.156(.363)	.063(.009)	.063(.007)	-.040(.005)	.022(.008)	.017(.003)	.169(.030)
40-44 years	.213(.409)	.200(.009)	.174(.007)	-.172(.005)	-.021(.007)	.021(.003)	-.008(.028)
45-49 years	.159(.366)	.116(.009)	.123(.008)	-.052(.005)	-.031(.008)	.041(.003)	.094(.030)
50-54 years	.109(.312)	.116(.010)	.197(.008)	-.131(.006)	-.083(.008)	.043(.004)	.091(.033)
55-59 years	.045(.208)	.188(.014)	.216(.008)	-.069(.008)	.069(.012)	.127(.005)	.745(.045)
60-68 years	.019(.137)	.137(.020)	.124(.016)	-.041(.012)	.190(.016)	.048(.007)	.583(.065)
Region dummies (West deleted)							
Northeast	.252(.434)	-.036(.008)	-.035(.007)	.030(.005)	-.037(.007)	.013(.003)	.375(.027)
North Central	.316(.465)	.011(.008)	-.031(.007)	.044(.005)	-.014(.007)	.014(.003)	.164(.026)

Table 7, continued

	Mean (S.D.) of Independent Variables (1)	Dependent Variable = Log of 1971 Labor Income (2)	Dependent Variable = Log of 1971 Average Hourly Earnings (3)	Dependent Variable = Log of 1971 Annual Hours (4)	Dependent Variable = Whether Ever Displaced (5)	Dependent Variable = Whether in Disadvantaged Group (6)	Dependent Variable = Number of Times in Bottom Decile (7)
South	.267(.443)	-.081(.008)	-.145(.007)	.067(.005)	.028(.007)	.031(.003)	.482(.027)
Race (nonwhite = 1)	.110(.313)	-.086(.009)	-.081(.007)	-.006(.005)	-.011(.008)	.040(.003)	.619(.029)
Union (member = 1)	.327(.469)	.075(.007)	.150(.005)	-.042(.004)	.160(.006)	-.070(.002)	-.767(.021)
Education dummies (12 years deleted)							
Illiterate	.014(.116)	-.439(.024)	-.464(.019)	.029(.014)	-.334(.020)	.135(.008)	2.44 (.076)
Grades 0-5	.021(.144)	-.260(.020)	-.260(.016)	-.005(.011)	-.097(.017)	.282(.007)	2.57 (.064)
Grades 6-8	.117(.321)	-.204(.010)	-.193(.008)	-.033(.006)	-.028(.008)	.066(.003)	1.05 (.031)
Grades 9-11	.171(.376)	-.100(.009)	-.113(.007)	-.011(.005)	.049(.007)	.048(.003)	.711(.028)
Nonacademic training beyond grade 12	.110(.312)	.055(.010)	-.008(.008)	.035(.006)	.054(.008)	.035(.003)	.151(.031)
College, no degree	.154(.361)	.128(.009)	.058(.007)	.042(.005)	.047(.008)	.022(.003)	.094(.029)
College, no advanced degree	.124(.329)	.328(.011)	.265(.009)	.034(.006)	.002(.009)	.007(.003)	-.010(.034)
College, advanced or professional degree	.074(.262)	.580(.014)	.435(.011)	.119(.008)	-.096(.012)	-.000(.005)	-.265(.045)
R^2	--	.333	.449	.129	.118	.242	.372

two or more deciles in the distribution (column 5); being in our disadvantaged group (column 6); and in terms of the number of times an individual appears in the bottom decile (column 7). It is not surprising that in general the same characteristics that affect average earnings also influence the likelihood of falling at the bottom of the distribution. So long as the distributions of persons in the various groups being compared are reasonably shaped (for example, they have a standard single hump and nonnegligible tails), factors that alter average levels of earnings will necessarily also alter the frequency of falling below a certain cutoff point. Indeed, if distributions had specified shapes (for instance, lognormal), we could estimate the impact of factors on the chance of being below a cutoff point from estimates of the effect of that factor on earnings.

It is significant to note the importance of industry in determining the earnings and disadvantaged status of workers in the table 7 calculations. In a detailed analysis of the determinants of poverty status among families of workers employed 40 weeks or more, Muller (1977) found industry to be as important as education in some calculations and important in virtually all. In hourly wage regressions, industry was second to education as an explanatory factor while in determination of poverty-level wages, industry was the major factor. At one level, evidence of an important industry component in the wage determination process can and has been taken as indicative of support for the dual market hypothesis that workers with the same personal attributes obtain very different economic outcomes in different parts of the economy. The evidence can also be interpreted, however, as reflecting unobserved personal attributes: Low-wage industries may simply be the "employers of last resort" for the less productive. Whatever the reason, industry, as well as standard demographic and human capital factors, is an important determinant of earnings and disadvantaged status.

Another interesting aspect of table 7 is found in the coefficients for older workers, who, despite having incomes above those of the deleted (30- to 34-year-old) group, have greater chances of being in the disadvantaged and displaced sets. This fact highlights the problems, to be discussed later, of troubled older workers.

Although definite characteristics can be associated with being disadvantaged, it is important to recognize that models that predict a person's disadvantaged status from these characteristics are not as reliable as knowledge of a person's previous placement in the lowest decile in predicting permanent placement in the lowest decile. We documented this point by

comparing the fraction of persons correctly and incorrectly predicted, based on their 1971 characteristics, to be in the lowest decile seven or more times with the fraction predicted by previous placement in the lowest decile. We used linear probability models to predict disadvantaged status from an individual's position in the earnings distribution in 1971 and selected demographic characteristics. The results of these regressions were a set of predicted probabilities on whether or not a given individual would be in the disadvantaged group. These predicted values were used with a set of cutoff criteria such that for each model the percentage of the sample predicted to be in the disadvantaged group was equal to the actual proportion (5.2 percent). Under these criteria, using demographic characteristics provided relatively little gain in predictive power.

When the only datum used was the individual's poverty status in 1971 (whether or not he was in the bottom decile), the results were: 3.0 percent predicted disadvantaged and actually disadvantaged; 2.2 percent predicted disadvantaged and not actually disadvantaged; 2.2 percent not predicted disadvantaged and actually disadvantaged. When the individual's 1971 poverty status was used along with simple demographic characteristics (education, age, race, region), the accuracy increased only slightly: 3.5 percent predicted disadvantaged actually disadvantaged; 1.7 percent predicted disadvantaged not actually disadvantaged; 1.7 percent not predicted disadvantaged actually disadvantaged. Moreover, adding more complex controls (industry, occupation) did not improve the results any further.

Family Background

To what extent does family background influence a person's chances of being a distressed or disadvantaged worker?

Since most studies of the economic impact of family background have examined the link between background factors and average economic success, we rely on that relation to infer the effects of background on the chances of being in one of our troubled categories. Using background measures such as parental occupation and education, most studies find that background operates largely through education. Bowles (1972) criticized the conclusion on measurement error grounds and showed that background could have a larger independent effect than was obtained in regressions that did not correct for measurement error. Although studies that correct for measurement error have failed to substantiate Bowles's specific argument (see Corcoran and Datcher, 1981, pp. 175-76), work with other measures of family income has supported the thrust of his point.

Family income and at least one other measure of family background, religion, are also important factors in earnings (Jencks, 1979; Corcoran and Datcher, 1981) even with education held fixed. A different set of studies has sought to estimate background effect using data on brothers and twins on the hypothesis that similarity between brothers and twins reflects similarity of background. These studies suggest a support role for unmeasured background factors (genetic or environmental) in determining earnings (Taubman, 1976; Behrman and Taubman, 1976; Behrman, Taubman, and Wales, 1977). The new work indicates that "the families into which men are born have a considerable impact upon their chances of economic success" (Corcoran and Datcher, 1981, p. 203). From this we can reasonably assume that family background is an important determinant of whether a worker is permanently in trouble in the job market.

The Dual Market Hypothesis

Two basic views attempt to explain why some individuals become permanently disadvantaged in the job market. Standard economic analysis seeks to explain the lower tail of the earnings distribution in terms of the same economic factors that operate elsewhere. From the supply side, this makes the determination of poverty-level wages a question of personal productivity, of human capital. On the demand side, the theory of compensating differentials is used, in conjunction with posited prejudiced tastes, to explain the particularly low earnings of minority and women workers. The principal alternative to the standard theory is the dual or segmented market hypothesis, which seeks to offer a more focused explanation of the lower tail in terms of the characteristics of low-wage labor markets and the theory of noncompeting groups.

The dual market hypothesis has three basic components: (1) The job people hold is an important determinant of their productivity, so that two workers with the same human capital could have different levels of productivity and wages in different parts of the economy; (2) there is limited mobility between the part of the labor market where wages are high, jobs are stable, and learning opportunities are significant (the so-called primary sector) and the part of the market where jobs are "bad" (the secondary sector); and (3) in the "secondary sector," personal attributes such as education and age are relatively modest determinants of earnings, so that persons stuck in those sectors cannot improve their status through better education or on-the-job training.

Judging the empirical validity of the dual market theory is difficult because neither proponents nor critics have carefully specified the alternative hypothesis against which the theory

should be run. Obviously, to some extent earnings and productivity differ by job as well as by personal competence. And mobility across sectors is not instantaneous and perfect. The question is, how much divergence from a perfect competitive market is needed to establish the dual market hypothesis? Alternatively, how much mobility and determination of wages on human capital criteria are needed to reject it? In the critiques and debates about the dual market theory (Cain, 1976; Wachter, 1974; Ryan, 1981), no one has specified the proper empirical magnitudes that could resolve the issue.

Instead of trying to determine the validity of the theory, let us try to evaluate what has been learned about the three points. Can we take disadvantaged workers and readily improve their earnings capacity, getting them in better jobs?

A human capital adherent might answer "yes," but only through skill augmentation. A dual market adherent might answer "yes," but possibly through other methods as well, such as the Supported Work Experiment (Manpower Demonstration Research Corporation, 1980-81) or provision of better labor market information. The question cannot be answered with cross-section regression analysis comparing the earnings of persons with the same measured attributes in different sectors, because such comparisons involve <u>different</u> persons, one of whom may have superior unobserved attributes. Longitudinal studies of earnings provide some evidence but are subject to alternative interpretations, also because of questions about the unmeasured characteristics of persons who shift sectors. Although more can probably be done with longitudinal data, perhaps the best evidence comes from manpower training efforts to improve the earnings power of the poor and from recent Supported Work Experiments. Some studies suggest that some training programs have been successful in improving earnings power (see Ashenfelter, 1978; Perry, Rowan, Anderson, and Northrup, 1975), but no one claims this to be the case overall, and no study has resolved the question of whether even successful programs do more than give some of the disadvantaged a "leg up" on others (see Johnson [1978] for discussion). As for the Supported Work, the experiment with women receiving Aid to Families with Dependent Children (AFDC) was judged by the Manpower Demonstration Research Corporation as a success, but experiments with ex-addicts and ex-offenders were not judged successful in their impact on the labor market. The question of how much resources and effort are needed to move the disadvantaged to better jobs is unresolved.

Does the wage determination process reward personal attributes, education, and age less in the secondary sector than in the primary sector? Although subject to criticism, the empirical results here appear to be fairly strong: Wage

equations for low-skill occupations and industries generally yield much smaller coefficients for years of schooling and age than do identical equations for high-skill groups or workers as a whole (see Buchele, 1976; Osterman, 1975; Wachtel and Betsey, 1972; Harrison, 1972). Although this result has been criticized by Cain (1976) as possibly due to truncation bias (the fact that educated workers employed in bad jobs are likely to have negative unobserved characteristics), no one has demonstrated that the bias explains the results. Because truncation should reduce the slope of the earnings equation in both low- and high-skill (secondary and primary) sectors, whereas returns are lower in the former only, it is doubtful that truncation is the main force explaining the results. At present, our best conclusion is that the wage determination process differs between markets in which few workers are low paid and those in which many workers are disadvantaged.

Is mobility limited between the secondary and primary sectors? Most dual market studies find substantial movement across industry and occupation lines (see Ryan [1981] for a summary of studies), but in the absence of a measuring rod as to how much is needed for a reasonably well-functioning market and how little is needed to judge markets as segmented, a firm conclusion is not possible. The dual labor studies of mobility do, however, indicate that having a "dead end" job in the secondary sector, while obviously undesirable, is far from being a permanent barrier to economic advancement.

In short, the dual market claim regarding wage determination processes appears to be valid, but its other assertions have yet to be shown empirically correct. And subtle claims regarding the impact of bad secondary sector jobs on individuals' work behavior have also not received sufficient empirical support to be judged correct.

Interpreting Stable Permanent Earnings Distribution

The most depressing piece of evidence regarding the problem of workers at the bottom of the earnings distribution is that, notwithstanding diverse training efforts to aid the disadvantaged, the distribution of earnings appears to be relatively unchanged in recent years. As table 8 shows, the ratio of the earnings of male workers of the lowest decile to the median earnings of male workers (unadjusted for age and numerous other factors) has not declined in the past decade. Coupled with sluggish real economic growth in the 1970's, the stable earnings distribution has meant little improvement in both the real and relative positions of workers in trouble in the market, as indicated by the number of persons in poverty in official government counts.

Table 8

U.S. Male Workers: Mean and Median Earnings, All Workers and Bottom Decile, 1968-78

Year	Mean ($)	Median ($)	Cutoff Earnings, Bottom 10% ($)	Cutoff Earnings, Bottom 10% Overall Median
1978				
All Year-round Full time	13,514	12,133	1,335	.11
	17,526	15,730	7,236	.46
1977				
All Year-round Full time	12,280	11,037	1,104	.10
	16,149	14,626	6,582	.45
1976				
All Year-round Full time	11,365	10,301	1,030	.10
	15,004	13,455	6,324	.47
1975				
All Year-round Full time	10,579	9,674	967	.10
	14,029	12,758	5,996	.47
1974				
All Year-round Full time	9,853	9,064	906	.10
	12,762	11,835	5,207	.44
1973				
All Year-round Full time	9,420	8,682	868	.10
	12,104	11,186	5,034	.45

Table 8, continued

Year	Mean ($)	Median ($)	Cutoff Earnings, Bottom 10% ($)	Cutoff Earnings, Bottom 10%, Overall Median
1972				
All Year-round	8,791	7,991	879	.11
Full time	10,202	11,304	5,200	.46
1971				
All Year-round	8,023	7,388	739	.10
Full time	10,395	9,399	4,418	.47
1970				
All Year-round	7,685	7,152	715	.10
Full time	9,918	8,966	4,214	.47
1969				
All Year-round	7,340	6,899	759	.11
Full time	9,346	8,455	4,058	.48
1968				
All Year-round	6,811	6,442	773	.12
Full time	8,437	7,664	3,449	.45

SOURCES: U.S. Bureau of the Census, Current Population Reports, Consumer Income Series P-60 (Washingon, D.C.: U.S. Government Printing Office, 1969-1979), no. 123, table 56; no. 118, table 52; no. 114, table 52; no. 105, table 52; no. 101, table 64; no. 97, table 64; no. 90, table 57; no. 85, table 55; no. 80, table 55; no. 75, table 49; no. 65, table 45.

The conjunction of a permanent distribution of earnings among individuals and a stable distribution of earnings over time does not augur well for low-earning workers. It suggests that the only reliable solution to the problem of troubled workers is a resurgence of productivity growth and accompanying real earnings growth. This does not mean that efforts to improve the positions of particular groups or of individuals may not have value, nor that poverty cannot be ameliorated with transfer programs; however, it does cast a pall over efforts to raise the labor market earnings of the disadvantaged in the absence of real growth.

3. Specific Groups Having Trouble in the Labor Market

The analyses of the PSID data in this and other studies and of other data sets, together with a variety of case investigations and related experiments, have identified certain groups of workers as overrepresented among workers having trouble in the job market. This section reviews some evidence of the economic problems facing specified groups. No effort is made to provide a complete literature summary for all groups with job problems. Some groups--including rural and migrant workers, workers who are injured or otherwise handicapped, and self-employed workers--are not discussed here.

Female Heads of Households

One of the most striking socioeconomic developments in the United States in recent years has been the substantial growth in the number of families headed by women. In 1970, women were heads of households in 11 percent of all families; in 1978, women headed 14 percent of all families. Among blacks, for whom the rise in women-headed homes to 23 percent in 1964 motivated the controversial "Moynihan Report," (U.S. Department of Labor, 1965) the proportion of homes headed by women reached 40 percent in 1979. The increase in both groups is fueled by rising divorce rates and a large proportion of never-married women in their twenties.

Table 9, which summarizes some of the data on women-headed homes, shows the dimensions of the economic problem for these women. First, lines 1 and 2 in table 9 show that homes headed by women had incomes far below those of homes headed by men. As a result, the percentage of female-headed homes with incomes below the poverty level was six times the percentage of male-headed homes in poverty. Despite the predominance of male-headed homes, female-headed families constituted slightly more than half of poverty-level families in 1978.

Second, and of particular relevance to the job market, is that although a large proportion of women household heads were out of the labor force and dependent on welfare, a growing proportion of those with children are in the work force (66 percent of mothers in 1979 compared with 59 percent in 1970) and dependent on labor market earnings for their family incomes. In total, 68 percent of income in female-headed homes was attributed to labor market earnings; among those in poverty, however, the figure was 32 percent. Both black and white female-headed homes are similar in this respect.

Third, an extraordinarily large proportion of American children are brought up in homes headed by women and thus in relatively low-income homes. In 1978, 18 percent of all children and 48 percent of black children were in families maintained by women. Moreover, a disproportionate number of those children were in families where the mother neither earned an adequate income nor obtained it elsewhere.

In addition, the income of female-headed homes relative to male-headed homes has not risen over time. Indeed, the income of female-headed homes was higher relative to that of male-headed homes in 1969 than in 1978 (U.S. Bureau of the Census, 1980). This, of course, reflects the fact that there has been little, if any, rise in the female-male wage ratio in recent decades.

Longitudinal studies of the economic position of women when their families break up show the extent of the decline of income. In the National Longitudinal Survey of Women, Mott (1979) found that the breakup of the husband-wife family reduced family incomes in the female-headed homes by about 50 percent. In the PSID data, the comparable figure is about 53 percent (Duncan and Morgan, 1981, estimated from table 1.5) whereas "female heads who married enjoyed family income increases averaging $16,000" (Duncan and Morgan, 1981, p. 18). What is less clear is whether these figures represent a relatively permanent or transitory problem. Current Population Survey data on remarriage of divorced women show that the majority remarry within a few years. Women divorcing before age 30 (of whom at least three-fourths remarry) do so within 3 years, on the average. This fact suggests that the problem of women who head households may be more properly categorized as in a depressed economic state, not as permanently disadvantaged. PSID data, however, show that 80 percent of women-headed homes in 1972 remained so 6 years later, suggesting a more permanent economic problem (Duncan and Morgan, 1981, table 1.5). In any case, the economic difficulties that women face in the labor market create extreme economic problems for families that depend permanently on women.

Table 9

Economic Status of Female-Headed Homes, 1978

1. Income of Year-Round, Full-Time Worker-Headed Families ($)	Median	Mean
Female-Headed Homes	13,203	14,933
Male-Headed Homes	22,479	22,461
Ratio	.59	.59
2. Income of All Families ($)		
Female-Headed Homes	8,537	10,689
Male-Headed Homes	19,229	21,703
Ratio	.44	.49
3. Percentage of Homes with Incomes Below the Poverty Level		
Female-Headed Homes	31.4	
Male-Headed Homes	5.3	
4. Fraction of Income in Female-Headed Homes from Different Sources[a]		
All Female-Headed Homes		
Labor-Market Earnings	.68	
Transfer Income	.28	
Property	.04	
Black Female-Headed Homes		
Labor-Market Earnings	.67	
Transfer Income	.32	
Property	.01	
5. Fraction of Income in Female-Headed Homes Below the Poverty Level[a]		
White		
Labor-Market Earnings	.32	
Transfer Income and Other	.68	
Black		
Labor-Market Earnings	.34	
Transfer Income and Other	.66	

Table 9, continued

6. Proportion of Children under Age 18 in Female-Headed Homes[b]	
All Children	.18
Black Children	.48

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a. Calculated by multiplying the mean income times the number of families in each group (wage or salary earners; self-employed, farm; self-employed, nonfarm; property income; and transfer payments) to get a total income earned by female-headed families, and then taking percentages of this total using the same subtotals.

b. Calculated by multiplying the mean number of children per family times the relevant number of families.

SOURCES: U.S. Bureau of the Census, Current Population Reports, Series P-60. Lines 1, 2: no. 123, table 20. Lines 3, 6: no. 124, table 19. Lines 4, 5: no. 123, table 33.

In examining the gap in wages between men and women, several studies have separated the reasons for the gap into two groups: Those due to sex differences in control variables and in work patterns, which may be linked to productivity; and those due to differences based on sex alone, which may be due to discrimination. The most interesting factor studied is the intermittent work experience of women (Mincer and Polachek, 1974). According to the intermittent work hypothesis, some of the male-female differential is due to the failure of female workers to invest in work skills to the same extent as men do and to their withdrawal from the labor market for childbearing and childrearing during a critical part of the lifecycle. As initially formulated by Mincer and Polachek, the intermittent work hypothesis appeared to explain a substantial proportion of male-female wage gaps in the NLS survey. Later studies probed the finding further. Sandell and Shapiro (1977) pointed out an error in the Mincer-Polachek statistics, and obtained much weaker results. Corcoran (1978) examined the hypothesis in the PSID data set and also obtained a smaller estimate of the contribution of interrupted work patterns to the female-male gap than did Mincer and Polachek (1974), finding stronger effects of withdrawal for the age group they studied (30 to 44) than for any other age group.

Regarding the potential role of discrimination in the male-female earnings gap, perhaps the most important empirical finding has been the significance of occupational segmentation in differentials. Every study in the area has revealed major differences, controlling for other factors, in the jobs held by men and women. In one of the earliest studies, Fuchs (1971) noted "how few occupations employ large numbers from both sexes," a result on which all other analysts concur. Blau (1979) found even more surprising evidence of segregation in the workplace. Within the same specific occupation in the same local labor market, men and women tended to congregate in different firms, with the men in the high-wage firms and women in the low-wage firms.

There is some question about the extent to which occupational differences account for the observed earnings differentials. In one early study, Sanborn (1964) obtained results suggesting that the bulk of male-female differences is purely occupational. Most recent studies, however, have obtained weaker results in this respect, although their level of occupational detail is less fine. Chiswick et al. (1974), for instance, attributed only 28 percent of the male-female wage gap to occupational factors. Whatever its precise role in accounting for wage differences, however, occupational segregation undoubtedly is a key aspect of male-female economic differences.

Minority Workers: Blacks

Despite the widely heralded economic progress of black Americans in the post-1964 era, blacks continue to constitute a disproportionate number of the disadvantaged workers. Indeed, as analysts have looked more carefully at the dimensions of the economic progress of blacks, most have noted that despite overall gains in the 1970's, the economic positions of many disadvantaged black workers has, if anything, grown worse in recent decades. In a recent article, Kilson (1981) said, "Out of these transformations is evolving a distinctly new kind of social stratification among Afro-Americans, one of haves and have-nots" (p. 63).

Table 10 shows the type of evidence that leads most analysts to conclude that (1) blacks have made substantial gains since 1964, but that (2) a large proportion of the black community faces a significant and worsening economic problem.

The earnings and occupation data in table 10, lines 1 through 5, reveal large gains relative to whites, with no indication of retrogression in the sluggish 1970's economy. The decline in the white earnings advantage has been confirmed in numerous studies using diverse data sets: For example, the 1960 and 1970 Census of Population (Smith and Welch, 1977), the 1962 and 1973 Occupational Change in a Generation (OCG) Survey (Hauser and Featherman, 1977), the National Longitudinal Survey (Daymont, 1980), and the PSID (Duncan and Hoffman, 1981).

Whether the economic gains of blacks are permanent or whether they are transitory, dissipating as persons age, has been raised by Lazear (1977). On the face of it, the data in table 10 appear to reject his argument because the ratios rise even in a no-growth economy; however, the correct test of Lazear's proposition is to examine longitudinal experiences. Several recent studies have done this, and as the list of studies in table 11 shows, all the analysts rejected Lazear's conclusion. The data do not indicate a decline in black-white earnings ratios as cohorts age except for the very youngest cohort, for whom ratios may have been artificially close due to minimum wage legislation. The decline among the youngest group, moreover, still leaves the ratio far closer to unity than was true of earlier cohorts, and it is smaller than declines found in earlier decades (Freeman, 1981).

With respect to the locus of black gains, most analysts agree that the largest economic advances have been achieved by black women (who have attained virtual economic parity with white women in earnings) and more educated and skilled blacks.

Table 10

Evidence of Economic Changes for Black Americans

	Year				
Males					
1. Median Wages and Salaries[a]	1949	1964	1969	1979	Change, 1969-79
All Workers	.50	.59	.67	.72	.05
Year-Round and Full-Time Workers	.64 (1955)	.66	.69	.76	.07
2. Median Usual Weekly Earnings[b]	--	.69 (1967)	.71	.78	.07
3. Median Income, by Age (1949) and Year-Round Full-Time Workers (Other Years)[c]	1949	1959	1969	1979	Change, 1969-79
20-24	.66	.64	.82	.77	-.05
25-34	.60	.61	.72	.74	.02
35-44	.55	.59	.68	.78	.10
45-54	.54	.55	.68	.59	-.09
4. Median Income or Mean Earnings for Young Men 25-29 Years Old, by Education[c]	1949	1959	1969	1978	Change 1969-78
High School Graduates	.73	.70	.77	.81	.04
College Graduates	.67	.70	.83	1.06	.23
5. Ratio of Percentage of All Nonwhites Employed in Occupations to Percentage of All Whites in Occupations	1950	1964	1969	1979	Change 1969-79
Professionals	.39	.45	.48	.54	.06
Managers	.22	.22	.28	.37	.09
Craftsmen	.41	.58	.68	.81	.13
Managers, College Graduates Only	.42	.41	.49	.75	.26

Table 10, continued

6. Ratio of Employment to Population[d]	1950	1964	1969	1979	Change 1950-79
Black	.76	.73	.73	.64	-.12
White	.81	.78	.78	.75	-.06
7. Labor Force Participation Rates					
Black	85.2	80.0	76.9	71.9	-13.3
White	85.6	81.1	80.2	78.6	-7.0
8. Percentage 14 Years and Older Without Labor Market Earnings[e]					Change 1969-79
Black	--	--	.19	.29	.10
White	--	--	.12	.15	.03

a. Ratio of black and other races' earnings to whites.

b. The May Current Population Survey asks a question regarding usual weekly earnings.

c. Ratio of blacks to all other workers.

d. Calculated as the (labor participation rate)(1-unemployment rate).

e. Calculated as (all persons-number with wage or salary income, farm income, or self-employment nonfarm income)/all persons.

SOURCES: Lines 1, 3, 4: U.S. Bureau of the Census. 1949: Census of Population 1950; Special Reports: Education, table 13. 1959: Census of Population 1960; Subject Reports: Educational Attainment, table 6. 1964: Current Population Reports, Consumer Income Series P-60, no. 47, table 33. 1969: Series P-60, no. 75, tables 45 and 59 (lines 1,3,6) and Census of Population 1970: Subject Reports: Educational Attainment, table 7 (line 4). 1978: Series P-60, no. 123, table 51. 1979: Series P-60, data from Census worksheets corresponding to tables 49, 51, and 60 of Series P-60, no. 123. Line 2: Monthly Labor Review, various issues. 1979 figure is for 1978. Line 5: U.S. Bureau of Labor Statistics, Educational Attainment of Workers, Special Labor Force Reports no. 240, table K, p. A-21; no. 125, table J, p. A-29, no. 53, table J, p. A-14. 1950 employment from Census of Population 1950, Education P-E, no. 5B, table 11, pp. 88-94 (figures for age 15 and over). Lines 6 and 7: Employment and Training Report of the President, 1980, tables A-48, A-21; 1950 figures are for 1954. Line 8: Series P-60, no. 123, table 52 (1979 figures are for 1978); no. 75, table 61.

Studies of the economic return to investments in school have found a sharp trend in favor of more educated blacks, a finding that contrasts with the trend against highly educated whites. Studies of the extent to which black families transmit their economic status to their children in the NLS, PSID, and OCG data sets show an increase in the impact of family background factors on the position of blacks, in sharp contrast to Duncan's (1968) initial result that black family background did not affect children's success prior to 1964. Finally, evidence of extensive upgrading in the occupational attainment of blacks provides further support for the proposition that blacks have made notable gains in managerial, professional, and skilled craft jobs.

An important dimension of these gains--the extent to which the new or growing black middle class is employed by government--has, however, not received adequate attention. With respect to professionals, 57 percent of black men college graduates in 1970 were employed by government, compared with 27 percent of white men college graduates; 72 percent of black women graduates and 56 percent of white women graduates were also employed by government (Freeman, 1976, table 54, p. 152). In a recent analysis, Brown and Erie (1981, table 1) estimated that 55 percent of the growth of nonagricultural employment for blacks from 1960 to 1976 was in the public sector, compared with 26 percent of that for whites, and that the rate of growth of blacks in professional and managerial positions was concentrated in the public sector in social welfare work. Although these figures may simply represent the normal pattern in which a rising group finds an exceptional proportion of employment in a growing sector, the danger is that the black middle class has become tied to a sector likely to contract in the future.

With respect to blue-collar jobs, perhaps the most positive fact about the current condition of black workers is that they are disproportionately represented in unions and hold a large number of stable high-wage blue-collar jobs.

What about Kilson's (1981) "have nots"? The first discouraging aspect is the sharp drop in labor participation rates and employment rates among older as well as younger black men. In 1969, 73 percent of black men age 16 and over were employed, compared with 78 percent of white men. In 1979, the figures dropped to 64 percent and 75 percent, respectively. A large portion of this decline occurred in the form of labor force withdrawals rather than unemployment. Although an increasing proportion of employed black men hold better jobs, an increasing proportion are also apparently out of the mainstream economy.

Table 11

Studies of Black Longitudinal Progress

Study	Data Set	Result
Raisian and Donovan, 1980	PSID, 1967-77	Wage gains of blacks exceed those of whites
Daymont, 1980	NLS Young Men, 1966-76	Wage gains of blacks exceed those of whites
Freeman, 1981	PSID, 1968-78	Wage gains of blacks smaller than for whites, ages 18-24; larger for ages 25-29
	CPS May, March tapes 1969-79	Wage gains of blacks smaller than for whites, ages 18-24; larger for ages 25-29
	NLS Young Men, 1966-76	Wage gains of blacks exceed those of whites
	National High School Class of 1972, 1972-76	Wage gains of blacks are smaller; black-white ratio drops from 0.99 to 0.94
Malveaux, 1977	CPS, 25- to 34-year-olds, 1968-77	Occupational gains of blacks exceed those of whites
Duncan and Hoffman, 1981	PSID	Black earnings gains about same as white earnings gains

The second discouraging aspect is the continued decline in the proportion of husband-wife families among blacks noted earlier. The impact of family composition on poverty can be seen in the fact that whereas the proportion of black families below the poverty level headed by men fell from 41 percent in 1969 to 25 percent in 1978, the overall proportion of blacks in poverty did not noticeably change in the period due to the rising number of families headed by black women.

Finally, the distribution of earnings among blacks may have worsened somewhat in the 1970's. Kilson (1981) pointed out a decline in the share of the lowest two-fifths of blacks in the black income distribution from 1969 to 1977 contrasted with a rise in the share of the upper two-fifths, upper one-fifth, or top 5 percent. This change exceeds directionally similar changes among whites. Over the same period, a rising fraction of black men in CPS surveys reported no labor market earnings (Kilson, 1981, table 8).

All told, the evidence suggests that although equal employment opportunity (EEO) and related antibias activities improved the position of some blacks in the period (see Brown [1981] for an assessment of the causes of change), a radically different approach is evidently needed to improve the position of the "have-nots."

Minority Workers: Hispanics

Hispanic workers appear to face economic problems that are different from those of black Americans. Differences in premarket resources rather than unexplained "residual" discrimination appear to be the prime cause of economic disadvantage among this group. Table 12 shows that the earnings of Hispanic workers have been below those of whites but above those of blacks, and rose more rapidly than the earnings of either blacks or whites in the 1970's. In contrast to blacks, the labor participation of Hispanic men exceeds that of whites, whereas the percentage of families headed by women has changed only slightly.

A principal problem for Hispanic workers appears to be low levels of schooling. Although research results are not uniform, some studies explain virtually all white-Hispanic earnings differentials in terms of education and related differences in background. Briggs, Fogel, and Schmidt (1977) reported tabulations showing income ratios of Mexican-American men relative to all males within education groups that exceed unity for workers with 8 or fewer years of education, that are in the 0.93 to 0.94 ratio for workers with a high school education, and that are below unity only for those with college

Table 12

Selected Characteristics of Hispanics

		Year			
1.	Mean Household Income	1972	1975	1979	Percent Change 1972-79
	Hispanic	8,824	10,524	16,161	83
	White	11,725	14,288	20,393	74
	Black	7,501	9,247	13,088	74
2.	Percentage Female-Headed Hispanic Households		1975 19	1980 19	
3.	Labor Force Participation Rates, Males, Age 20 and Over	1973		1979	
	Hispanic	.86		.85	
	White	.82		.80	
	Black	.78		.76	
4.	Hispanic Educational Distribution by Householder	1973	1975	1979	
	Less than 8 Years Elementary	--	.37	.29	
	8 Years Elementary	--	.09	.08	
	1-3 Years High School	--	.16	.16	
	4 Years High School	--	.22	.26	
	1-3 Years College	--	.08	.12	
	4 or More Years College	--	.07	.09	
	Expected Family Income Ratio, Given White Educational Distribution	.99	.90		
	Actual Family Income Ratio	.75	.74	.79	
5.	Mean Earnings, Males ($)		1975	1978	
	Hispanic		8,162	10,473	
	White		11,448	14,627	
	Black		7,541	9,651	
	Expected Earnings Ratio, Given White Education Distribution		.83	.84	
	Actual Earnings Ratio		.71	.72	

SOURCES: Line 1: U.S. Bureau of the Census, Current Population Reports (CPR), Series P-60; no. 126, table 1. Line 2: CPR Series P-20; no. 363, table 32; no. 295, table 25. Line 3: Employment and Training Report of the President 1980, table A-8; 1975, table A-7. Line 4: CPR Series P-60; no. 126, table 3; no. 105, table 2. Line 5: Calculated from CPR Series P-60; no. 123, table 51, no. 105, table 48.

and cite findings that indicate that controlling for schooling, training, and age, Hispanics obtain earnings 14 percent above those predicted for the average worker. Reimers' (1980 a, b) analysis attributes nearly all of the white-Hispanic differences to background factors, although she finds different results for different Hispanic groups. The income data from the 1979 March Current Population in table 13, line 4, support the thrust of these results for family incomes, showing that nearly all of the white-Hispanic family income gap is attributable to education attainment. Earnings data for individuals (line 5), however, yield the more moderate conclusion that about 40 percent of the gap is due to education. Although there are differences among studies and data in the proportion of the white-Hispanic income gap attributed to schooling, the evidence to date suggests that limited schooling is a serious problem. Language difficulties, which have been thought to be a major independent deterrent to economic success, were found by Reimers to have only a modest impact on earnings.

With respect to the education problem, the low percentage of Hispanics of voting age registered to vote (44.4 percent compared with 73.4 percent for Anglos) reported by Briggs, Fogel, and Schmidt (1977, p. 25) may make schools less responsive to their needs. The relatively flat education-earnings profile for Hispanic men implicit in the Briggs et al. (1977) and other studies may further provide less incentive for Hispanic young persons to invest in schooling.

Industrial Dislocation

In a dynamic economy, demand for labor in some sectors grows while in others it declines over time. The reasons for growth and decline vary; they may include technological change, shifts in consumer preferences, foreign competition, and domestic competition. Concern is often expressed for workers who lose their jobs as a result of declines in their industries. In the 1960's, there was general concern for declines in labor demand due to technological change; in the 1970's, the focus has been on declines due to foreign competition.

To what extent are adjustments in the work force attributable to changes in trade patterns, technological change, or other factors costly to specific groups of workers? Are these losses permanent or transitory? Viewed broadly, the cost of declines in demand depends on the nature of the adjustment in employment, the length of time it takes workers to find new jobs, and the possible reductions in their earnings.

Table 13

Summary of Studies of Displaced Workers

Study	Sample	Nature of Study	Results	Possible Problems
Corson, Nicholson, and Skidmore (1976)	1,721 UI recipients from 4 Standard Metropolitan Statistical Areas (SMSA's) who exhausted their standard benefits in October 1974 (includes recipients of supplemental benefits).	Interviews conducted at the time of exhaustion, 4 months later, and 1 year later to investigate the impact of exhaustion of benefits on exhaustees and their families, including labor market experiences.	Exhaustees were older, between poverty and median family income levels, and had fairly strong labor force attachment. Reemployment: 4 months after exhaustion (24%-25%); 1 year after exhaustion (36%). Reemployment wages: $19 less per week than pre-layoff because of fewer hours.	Does not separate results by industry.
Kingston and Burgess (1979)	240 UI recipients, members of Arizona Benefit Adequacy Study, who exhausted all benefits available to them between May 1976 and August 1977 and who responded to three mail surveys.	Three mail questionnaires: distributed 2, 4, and 6 months following benefit exhaustion to study consumption adjustments and labor market experiences of benefit exhaustees.	More exhaustees were over 55, women, and in clerical, sales, or services jobs with relatively low weekly earnings. Older workers had the most difficulty securing employment for each week. Large percentage reductions in hourly rates were reported in post-layoff jobs. 60%-70% obtained employment of the same type as they left.	Respondent sample was more female and over age 55 than original sample. Study took place only in Arizona.
Corson et al. (1979)	963 TAA recipients (53 petitions, 7 States) from manufacturing; 260 UI recipients from manufacturing; 278 UI recipients from other industries; all laid off between October 1974 and December 1976.	Interviewed once between November 1978 and February 1979 to determine the characteristics of TAA recipients and analyze the effects of the program.	TAA recipients were older, less educated, longer tenured, more unionized, and not poor. TAA recipients expected their layoffs to be temporary, and they were: 72% returned to previous employer after a shorter spell than did the UI recipients who returned. TAA recipients who found new jobs had longer layoffs and significantly lower post-layoff pay than did rehired workers or UI recipients with new jobs.	Does not identify other declining industries.

Table 13, continued

Study	Sample	Nature of Study	Results	Possible Problems
U.S. General Accounting Office (1980)	868 TAA recipients laid off from 200 plants from October 1974 through December 1977.	Single interview from July through November 1978 to determine the general need for TAA payments.	Most workers (67%) were not laid off permanently, 18% were working for a new employer, 9% were unemployed (4% expected recall), and 6% retired. 80% of the workers who hadn't returned to work and had exhausted their benefits were from 3 industries (leather, apparel, and electronics). Most workers indicated that they experienced no severe economic hardship as a result of their layoffs.	No comparison group. No standardized length of time from layoff to interview.
Bale and Mutti (1978)	76 nonrubber-shoe industry workers laid off in 1969-70 from 4 failed firms.	Survey in February 1972 to determine the pecuniary losses suffered by the workers.	Mean age, 45; 62% were female, all were white. Average education, 8th-9th grade; job tenure, 9 years. At interview, 52% were employed, 26% unemployed, 22% retired. Mean duration of unemployment was 38 weeks. Coverage hourly wage loss was $1.10 per hour. Total pecuniary losses per worker: $23,000-$24,000.	Small sample, single industry, no comparison group.
Neumann (1978a,b)	517 TAA recipients, 198 TAA qualified nonrecipients. 201 UI recipients laid off permanently from manufacturing firms in 1970-73 in 14 States.	Single interview in October 1975 to determine post-layoff labor force experiences.	TAA recipients were primarily female, union members, white, older, less educated, married, and had more tenure. 40% had not found new jobs by 1975. For those with jobs, unemployment had lasted almost 49 weeks.	Does not include temporary layoffs or people with jobs lined up before the layoff. Only trade displaced. Does not identify other declining industries in control group.

Table 13, continued

Study	Sample	Nature of Study	Results	Possible Problems
Jacobson (1978)	Social Security LEED file, 11 industries, 229 SMSA's, 1960-1970.	Analysis of LEED file job losers/stayers by industry and SMSA.	Persons who lost jobs in SMSA's with declining employment had earnings losses of 1%-4%, depending on industry, in first 2 years, and smaller losses over longer run. Persons who lost jobs in SMSA's with rising employment also suffered sizable losses. Losers were greater where attrition was small and where prime-age males were high percentage of employment.	Does not include other demographic groups.
Corson, Nicholson, and Skidmore (1976)	Longitudinal study of 2,000 workers who exhausted their regular UI benefits in October 1974.	Interviewed at time of exhaustion, 4 months later, and 1 year later.	Exhaustees had low reemployment rate in ensuing year (36%). On average, those getting work had a 29% drop in real earnings in new jobs, with far fewer hours worked.	No comparison with non-UI group.

Consider two possible worlds: One in which workers are permanently attached to enterprises and in which economic rewards are strongly dependent on years of tenure with an employer; and one in which voluntary attrition rates are high or in which economic rewards are only modestly linked to tenure. In the former world, changes in demand due to outside shocks are likely to be highly costly, with workers suffering significant capital losses. In the latter world, one would expect only moderate economic losses, for job changes are a normal and not especially costly part of life. As has been noted by research analysts, turnover rates are high in the United States (see Salant, 1978; Brechling, 1978), so that industries can adjust employment largely through attrition; however, some firms do, of course, go out of business and other permanently lay off workers as a result of normal economic change.

Industries experiencing significant technological change are less likely to experience declines in employment than those facing serious foreign or domestic competition. This is because technological advance lowers unit labor costs, and thus the price of output, thereby stimulating demand. Industry productivity growth rates are not negatively correlated with employment growth (see Salter, 1960; Kendrick, 1961), although one study found negative correlations at the plant level in the 1950's (National Commission on Technology, Automation, and Economic Progress, 1966). Industries subject to competition from other sectors or parts of the world are more likely to undergo serious employment losses and perhaps more significant and permanent economic distress as well.

Recent research on displaced workers has examined what happens to workers displaced for particular reasons, notably growth of foreign imports (as defined by the Trade Assistance Act [TAA]), or to workers on Unemployment Insurance (UI) rather than on the general topic of industries with declining demand. Jacobson's (1978) work, to be discussed shortly, is the major exception because it tries to differentiate between workers in declining and nondeclining sectors in general.

Table 13 summarizes some of the major studies. In general, the evidence suggests that although most workers displaced as a result of competition recover their initial jobs and earnings positions, a large proportion suffer major economic losses as a result of displacement; their wages and hours of work fall, and there is an extended period of time before reemployment.

The Corson et al. (1979) and Neumann (1978) studies, which compared the TAA and UI recipients, found that the TAA sample contained older workers with considerable job tenure who were more likely to be union members and to be less educated than

typical UI recipients. These characteristics support the view that layoffs due to import competition affect a group of workers that is different from the normal UI recípient population. It is not clear, however, whether these differences stem from the characteristics of the labor force in the trade-affected industries. In that case, the observed differences between the TAA and UI groups would change with changes in the industries affected by trade. Trade-affected layoffs, however, may cut deeper into an industry's labor force, releasing more senior or productive people than would a normal cyclical layoff. Then the differences would be relatively stable over time. Neither study attempted to distinguish between the two possible causes for sample group differences.

Both studies indicated that a small group of trade-displaced workers were hurt by their layoffs but that the majority did not suffer serious losses. As shown in table 14, from 66 percent to 75 percent of TAA recipients returned to their own jobs with larger wages than they had originally. Those who did not return to the same jobs, however, suffered substantial losses, with the TAA group experiencing larger percentage declines in earnings than did the UI group.

The other studies in table 14 also revealed large losses to workers who suffered job losses, with older workers and female workers apparently the most severely affected. In the Burgess and Kingston (1978) study, a sizable proportion of women and older workers withdrew from the labor force, exhausted their UI benefits, and had large percentage reductions in hourly wages and in time worked. Bale and Mutti (1978) estimated a large capital loss for workers displaced from the shoe industry. Jacobson's (1978) analysis of displaced workers in general found sizable losses in earnings for persons who lost their jobs in years of declining employment compared with persons who held their jobs. Jacobson obtained less clear results when he compared earnings loss of job losers in areas with declining employment with the earnings loss of job losers in areas with rising employment, because even in areas of rising employment, job losers suffered large income losses in his sample. The losses were greater for industries with low normal attrition rates and higher in industries with a high proportion of prime-age male workers. The most recent study, by the U.S. Government Accounting Office (GAO, 1980), yields results consistent with the others. In the GAO survey of 242,000 workers, two-thirds of those initially displaced had returned to work for their same employer at the time of the interview, and an additional 4 percent expected to be recalled. As a result of this pattern, most workers indicated that they had not experienced severe economic hardships as a result of their lay-

Table 14

Results of the Corson (1979) Study

	TAA				TAA			
	Male		Female		Male		Female	
	Different Job	Same Job	Different Job	Same Job	Different Job	Same Job	Different Job	Same Job
Percentage of Sample	14.2	74.8	26.0	65.9	31.7	59.1	29.8	56.0
Mean Weeks Unemployed	37.9	17.2	50.0	17.9	30.2	20.0	37.9	25.5
Sample Mean Wages (1975 dollars) Pre-UI/TAA	249	260	151	149	213	225	148	148
Mean Wages at First Job After Layoff	179	285	116	163	184	246	112	168
Ratio of First Job After Layoff to Pre-UI/TAA Wages:								
0 - .75	49.0	5.3	50.0	4.6	29.7	1.2	37.1	6.8
.75 - 1.0	26.5	16.8	26.9	19.7	29.7	24.7	34.3	20.5
1.0 - 1.25	18.4	54.8	9.0	48.7	23.4	52.9	22.9	40.9
1.25 - 1.50	4.1	13.6	51.	20.4	10.9	12.9	2.9	13.6
1.50 or more	2.0	9.4	9.0	6.6	6.3	8.2	2.9	13.6
Percentage Who Changed Industry	74.3	1.3	65.4	1.9	70.8	0.0	71.4	2.2
Percentage Who Changed Occupation	64.6	11.8	44.9	6.2	62.5	11.1	45.7	10.9
Mean Present Discounted Value of Earnings Lost Over 3 Years ($)	15,500	4,600	11,200	2,700	12,600	4,000	11,000	2,700

SOURCE: Corson et al., 1979, pp. 48, 54, 154.

offs. Most were able to rely on unemployment insurance benefits and other resources to meet their financial needs. Of the minority who did not return to the same employer, 10 percent found jobs elsewhere, 6 percent retired, and 5 percent were looking for work. It is among the last group that serious economic problems are likely.

Finally, the Corson, Nicholson, and Skidmore (1976) study of the experiences of Unemployment Insurance recipients the first year after exhausting their benefits provides additional support for the conclusion that some of the displaced suffer real earnings losses. In their sample, only 65 percent of 1,721 exhaustees found jobs 1 year after initial exhaustion of benefits, and they had a decline in real earnings of close to 30 percent (Corson et al., 1976, p. 18, obtained by adding decreases in earnings and increases in consumer prices).

In sum, the evidence supports the claim that although most workers who suffer initial job losses recover their positions, certain workers experience a substantial drop in the earnings distribution. Because our earlier results concerning persons who fall in the distribution suggest that sizable drops are partially permanent, there appears to be a hard core of persons who (for whatever reason) bear the brunt of economic distress.

Older Workers

It may seem odd to argue that older workers are a troubled group in the labor market. Cross-section age-earnings profiles peak at ages 45 to 54; vacation time, promotions, and layoffs usually depend on seniority; and older persons experience relatively low unemployment rates. Indeed, older workers in general are not a disadvantaged group. Nevertheless, a small number of workers over age 45 are in trouble for one important reason: loss of job. Institutional arrangements relating to seniority (not age) and firm-specific human capital make the loss of a job by older workers especially onerous. First, the loss often involves leaving a position with relatively high wages. Second, companies that offer defined benefit pension plans and related fringe benefits find that the cost of hiring older workers exceeds the cost of hiring younger workers by a greater amount than the wage differential. As a result, older workers are alleged to face serious adjustment difficulties: Longer unemployment than younger workers, lower wages on subsequent jobs, and lack of steady employment after layoffs. As a result, some older male workers drop out of the work force earlier than planned. In addition to problems caused by layoffs, older workers suffer from potential health problems, which also affect earnings and labor participation.

What is the evidence for these claims? With respect to unemployment, the rates published by the Bureau of Labor Statistics show clearly that older workers have longer incomplete spells than do younger workers. Virtually all the studies of industrial dislocations cited in table 15 found that older displaced workers have more problems obtaining work than do younger workers. Exceptions may exist, but the results of the studies seem unequivocal.

The evidence also seems to support the assertion that older job losers suffer more substantial declines in wages and time worked than do younger workers. The Bartel and Borjas (1977a, b; 1978) studies, which dealt specifically with this issue in the context of a specific human capital model, showed that layoffs of older men had a large, negative effect on the wages of men who had accumulated 3 or more years of tenure; also, the authors found that layoffs caused relatively larger wage losses and flatter wage profiles in the future for older than for younger workers. Parnes and King (1977) also showed much lower earnings and declines in occupational status for displaced older workers, although they stressed the variability of the outcomes. Finally, Mick's (1975) review of case studies on displaced workers concluded that those who lost the most from layoffs were older, less skilled, blue-collar workers.

Overall, the evidence seems to support the assertion that older job losers are a troubled group in the work force, at least in terms of the substantial drops in their position in the earnings distribution.

What factors explain the problem of older workers in the market? Several possible causes of labor market difficulties are discussed in the literature. First is the hypothesis that older workers show declines in productivity. Although the Employment and Training Report of the President, 1978 (U.S. Department of Labor, 1979) correctly cites extant productivity literature as contradicting this allegation (productivity levels off early in the work life and remains level with age), the possibility exists that firms displace those older workers whose productivity falls. Although I do not regard this as likely, it deserves some attention. A second reason, stressed by Barnow and Ehrenberg (1979), appears more reasonable: Because of defined benefit pension plans (and other fringe costs likely to rise with age), older workers are more expensive than younger workers at the same wage. To date, however, the importance of this factor has not been empirically estimated. A third reason relates to the advantages of older senior workers cited at the beginning of this section. Recent evidence (Medoff and Abraham, 1981) showing that a significant proportion of higher wages go to older workers because of seniority

Table 15

Selected Studies of Labor Market Problems of Older Workers

Study	Sample	Nature of Study	Results	Possible Problems
Mick (1975) (Review of Case Studies)	Workers unemployed after plant shutdowns. Studies done in 1930's through 1960's.	Examined impact of plant shutdowns on workers and communities.	Despite widespread negative effects, hardest hit were older, less skilled, blue-collar workers.	Studies are not comparable, making industry or regional analysis difficult.
Parnes et al. (1970)	NLS Mature Men Sample.	Provided descriptive statistics and cross-tabulations on the characteristics and labor market outcomes of the NLS Mature Men Sample.	Characteristics positively related to unemployment rate include being black, a manual or service worker, in the construction industry, uneducated, or single. Previous job tenure and the duration of unemployment are positively correlated.	
Parnes and King (1977)	99 permanently displaced workers with at least 5 years' tenure from NLS Mature Men Sample. Laid off between 1966 and 1971.	Compared 1973 status of the displaced workers with a matched control group that had not been laid off. Measured individual characteristics and outcome variables.	Characteristics similar, except displaced workers came disproportionately from trade and manufacturing industries. Displaced workers suffered more unemployment and lowered earnings and occupational status. Displaced workers were not less likely to be in the labor force. Overall, wide variability in outcomes.	Generalizability of results limited by selection criteria of minimum 5 years' tenure. Resulted in sample with 43% with 10-19 years' tenure; 34% had 20 years, or more.

Table 15, continued

Study	Sample	Nature of Study	Results	Possible Problems
Bartel and Borjas (1977a, b)	NLS Mature Men Sample.	Studied impact of quits and layoffs on immediate post-separation wage and on future wage growth. Analyzed serial correlation of separations.	Layoffs had ambiguous effect on immediate wage change for overall sample, and large negative effect for those with more than 3 years' tenure. Strong negative effect on future wage gains for whole sample. Strong serial correlation of layoffs.	Studied wage patterns and job mobility; did not examine post-termination employment.
Bartel and Borjas (1978)	NLS Young Men Sample; NLS Mature Men Sample.	Attempted to measure the impact of job mobility on wage gains across jobs and wage growth within jobs for young and mature men.	For Mature Men Sample, layoff caused immediate wage loss and flatter wage growth in future.	
Pursell and Torrence (1979)	2,190 persons from a UI applicant data file, October 1976.	Examined methods of job search and postemployment earnings. Compared the subset of the sample > 45 years with those ≤ 45 years.	Older workers used fewer job search methods. Duration of unemployment had a negative effect on postemployment earnings, especially for older workers. Reservation wage also had a negative effect on earnings, especially for older workers.	

wage policies, not productivity, suggests that loss of seniority due to job loss would force the wages of older workers to drop significantly. The Bartel and Borjas (1977a, b; 1978) evidence on declines in wages for laid-off older men with 3 or more years of seniority is consistent with this claim. Finally, the concentration of older workers in older, often declining, industries may also contribute to their difficulties.

The fact that some older men face serious labor market problems despite the high average earnings of the group is consistent with the distribution of earnings by age, because not only does the level of earnings rise with age, the level of dispersion also rises with age. Relatively more older men than younger men have earnings below (and above) the group average, thereby generating a definite tail of troubled workers, as shown in table 7.

Poor health, as reported by survey respondents, associated with economic problems has been reported in numerous studies (Luft, 1975; Fuchs, 1975; Parnes et al., 1970). The lower participation of older black men than of older white men has been attributed to the greater health problems of the former (Parnes et al., 1970). The decline in the participation of older black men has been attributed to poor health combined with increasingly more generous Social Security disability insurance (Parsons, 1980; Leonard, 1979). One possible problem with this interpretation relates to the self-reporting of health status: Perhaps men who wish to work fewer hours, to take easier jobs, or to withdraw from the labor force find it more socially acceptable to cite poor health as the reason. For older men at least, the evidence rejects this possibility. Andrisani (1977, table 1) found that older men reporting that their health affected their work had markedly higher mortality in ensuing years than did those who reported that health did not affect their work. In addition, a large fraction of older men who retire or leave the labor force do not cite health as a cause: It has become more acceptable to retire or retire early for personal non-health-related reasons. Hence, the studies that show that self-reported health problems are a major cause of labor market problems of older workers are likely to be true.

In sum, although a majority of workers over age 45 are relatively successful in the labor market, a hard core of job losers and workers with health limitations face serious economic troubles.

Workers in Depressed Communities

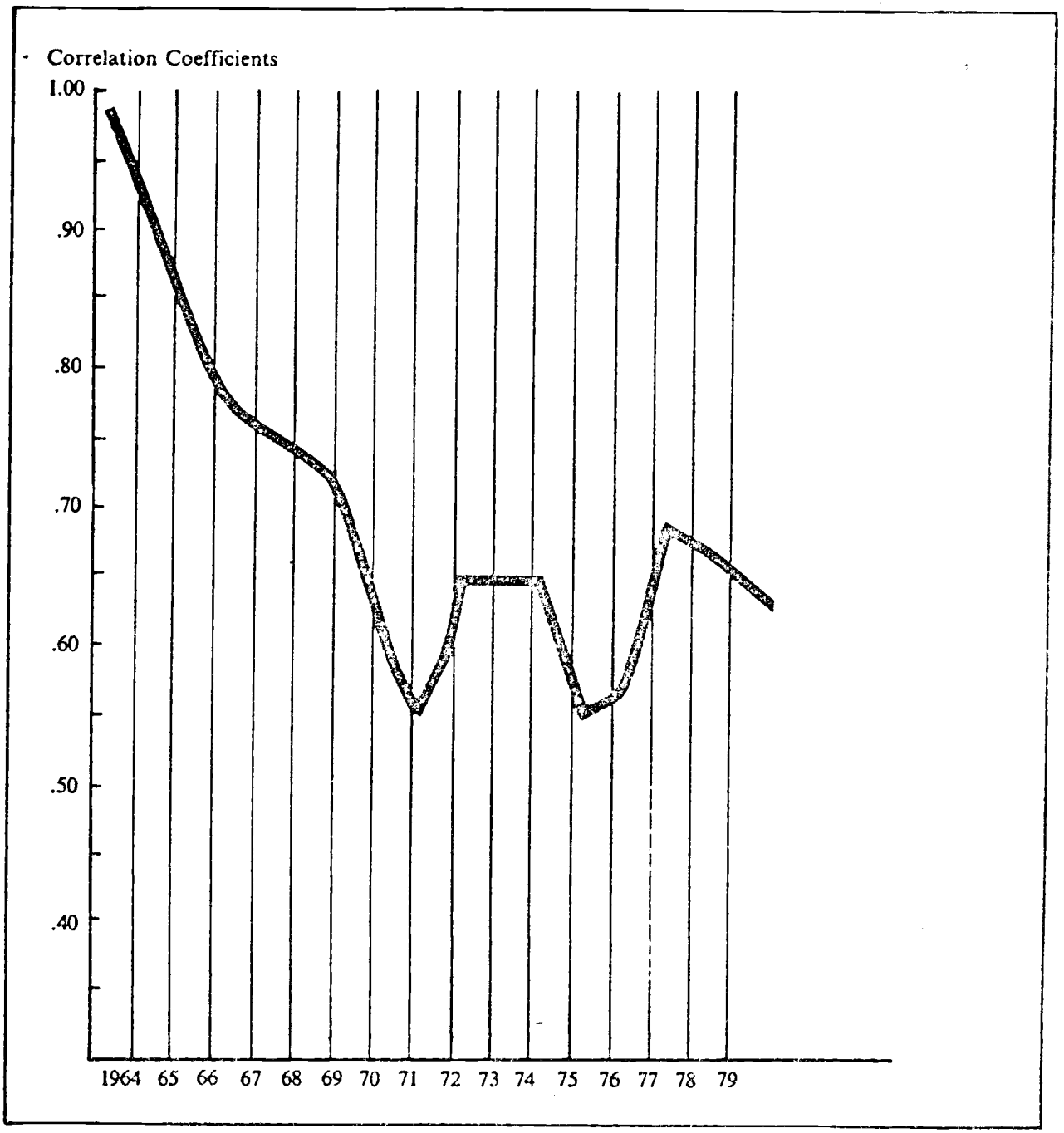
The problem of depressed areas has drawn serious concern for many years; this concern was most dramatically exemplified by President Kennedy's attention to Appalachia in the 1960's.

Recent economic analysis of the depressed area problem has focused on two questions: Whether unemployment in an area is permanent or transitory, and whether unemployment is compensated for by higher wages.

Studies of the relationship between area unemployment rates over time provide a clear answer to the question of persistence. They show unequivocally that unemployment across areas is a structural, relatively permanent problem rather than a transitory phenomenon. In a series of calculations, Marston (1980a, b) has documented this point effectively. In an analysis of variance of area unemployment comparable to decomposition of individual earnings described earlier, he found that 58 percent of the variance in rates across 30 SMSA's was due to area effect and another 30 percent was due to year effect, leaving only a modest 12 percent due to transitory factors. Using Census of Population data for 1950, 1960, and 1970, he not only obtained a higher estimate for the area effect (two-thirds of the variance was attributed to areas), but also a higher residual effect (28 percent). Browne's (1978) analysis of unemployment by census region divisions also revealed distinct patterns, with average unemployment higher in the West and lower in the North Central and South than in other regions throughout the 1960-76 period. As a check on these findings, I computed correlations between unemployment rates in more than 100 SMSA's using the crude data published in the Employment and Training Reports of the President, for the period 1963-79. Figure 2, which summarizes this analysis, shows initially high correlations exceeding 0.9 that fall and then stabilize at about 0.7, with no indication of further drops. Areas that had high unemployment in 1963 had a strong tendency to have high unemployment more than a decade later.

The hypothesis that area unemployment rates are at least partly compensated for by area wages was first suggested by Hall (1976). He showed that there was a positive correlation between the two variables in 12 cities. Since then, several studies have examined the relation in greater detail. As table 16 suggests, Hall's initial conjecture appears to be valid: High rates of unemployment are associated with high wages. Reza (1978) extended Hall's work to 18 cities for the period 1967-74 and found a large positive correlation, but he failed to allow for any other variables that might have affected the relation. Browne (1978) examined regional employment rates for the period 1960-75, including numerous demand-side variables,

Figure 2. Correlation Coefficients of the SMSA Unemployment Rates in the United States, 1963-79*



*Calculated from annual unemployment rates from U.S. Department of Labor, Manpower Administration, *Manpower Report of the President, 1974*, table D-8, pp. 335-337, for 1963-73; Department of Labor, *Employment and Training Report of the President, 1980*, table D-8, pp. 333-335, for 1974-79.

Table 16

Studies of the Compensatory Relation Between Area Wages and Unemployment

Study	Data Set	Finding
Hall (1976)	12 cities.	High unemployment cities have high wages.
Marston (1980 a, b)	1970 Census of Population, one-half million observations, 125 SMSA's.	Significant positive relation between individual's chances of unemployment and real area wage, with many other controls.
Reza (1978)	18 SMSA's, 1967-74.	Positive correlation between unemployment and income or earnings, no control variables.
Behman (1978)	27 States, 1970-75.	Insignificant but positive correlation between unemployment rate (instrumented) and real wage, numerous other controls.
Browne (1978)	9 census regions, 1960-75.	Employment ratio negatively correlated with wage and salary income per worker, implying positive correlation for unemployment ratio, other controls.

and obtained a significant negative relation between regional wages and employment rates, which implies a significant positive relation between wages and unemployment. In the most definitive work, Marston (1980a, b) used the 1970 Public Use Sample to analyze the unemployment of more than a half-million people in 125 metropolitan areas. With numerous other controls in his calculations, he found the real area wage rate to be significantly permanently correlated with the chances of an individual being unemployed. As seen in studies of developing countries, however, the extent to which wages and unemployment are related far exceeds that predicted by the usual expected income model, which suggests the need for a more complex analysis.

The fact that unemployment and wages are positively related by geographic area does not, of course, mean that unemployment and wage differences across regions are at equilibrium levels. To investigate this issue, it is necessary to examine how migration behavior responds to the difference. The results of the literature on determinants of migration yield the striking finding that local unemployment rates do not explain migration, whereas income and wage differences do (Greenwood, 1975, p. 411). This finding implies that greater attention should be given to regional income differences than to regional unemployment differences in defining depressed areas.

Overall, the finding that wages and unemployment rates are positively related does not mean that no high unemployment areas suffer serious economic problems; inner-city slums certainly are troubled. The literature findings do suggest, however, that areas that deviate adversely from the normal unemployment-wage relation (that is, that have both low wages and high unemployment) should be the focus of concern, rather than high unemployment areas.

4. Conclusion

This paper has reviewed some of the literature on groups of workers having trouble in the economy and analyzed the Michigan PSID to provide additional information relating to those groups. It has shown the existence of a relatively permanent hardcore group of troubled workers with distinctive characteristics. This study also found that workers in trouble are better distinguished by personal, unobserved characteristics than by any set of observables. This fact points to the need to define and aid workers in trouble on the basis of market outcomes, not on the basis of particular "causes" of problems. The permanence of the earnings distribution among persons, combined with the stability of the distribution over time, suggests that real economic growth is the key to aiding troubled workers, although special programs and efforts may help particular groups.

The most interesting aspect of the literature on troubled workers is the wide diversity of perspectives and forms of evidence examined. The most disappointing aspects are the inconclusive nature of the dual labor market/neoclassical debates and the failure to combine the diverse evidence and ideas into a unified perspective on the individual and institutional causes of troubled workers. This failure, of course, offers an opportunity for future research.

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