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The Changing World of Work

by

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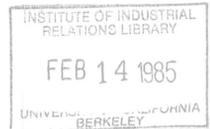
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The world of work is continually changing. At any moment in time it can be described. But prognosticating about the future is inherently risky. Trends can be observed, of course, but there is no guarantee that unforeseen developments will not intervene to disrupt those trends. Still, there is an innate attractiveness in trying to predict the future development of the labor market.

Fortunately, if a futurologist is willing to stick with the modest goal of forecasting the next decade -- as opposed to some longer horizon -- help is at hand. The U.S. Bureau of Labor Statistics (BLS) periodically publishes labor-force projections which take account of known demographic tendencies, likely changes in technology, and other influences which shape the world of work. The BLS data are not infallible, but they do represent the best, informed estimates of knowledgeable experts. These data, therefore, form the basis of the initial discussion below.1/₁

I. The Demographics of the Workforce.

The population stock of the U.S. can change only slowly -- and in the near term -- predictably. Over a period of ten years, 10 year olds become 20 year olds, 20 year olds become 30 year olds, etc. Death and birth rates may vary, but their impact on the labor force -- which does not include anyone below age 16 by definition, and which includes relatively few elderly -- is minimal. In other words, the raw material from which the labor force will be drawn over the next ten years is easily projected. Not so easy to predict, however, is the proportion of that population which will actually enter the workforce or remain in it.

Forecasters of labor-force participation in the 1970s were humbled -- or should have been -- by the unexpectedly rapid growth of female workforce participation. There could be surprises again over the next decade. Nevertheless, the BLS projections on this score are helpful as a starting point. These projections -- summarized on Table 1 -- indicate that women and minorities will make up a still larger fraction of the labor force by 1995 than they do today. Male and female participation rates will continue to converge.

One group in the labor force whose significance rose in the 1970s will decline in importance over the next decade. Thanks to the "bust" which followed the high birth rates of the baby boom, young people will represent a sharply reduced fraction of the labor force. In general, the workforce will be aging over the next decade (and beyond).

i. Increased Female Participation.

The phenomenon of women in the labor market is not new. Women, after all, made up a considerable fraction of the textile industry labor force in the early nineteenth century. They were present,

Table 1

Projected Demographic Trends in Civilian Labor Force,
1980-95

Demographic Group	Percent of Labor Force		Participation Rate	
	1980	1995 ^{a/}	1980	1995 ^{a/}
Male	57.5%	53.3%	77.4%	76.1%
Female	42.5	46.7	51.5	60.3
Ages 16-24	23.7	16.1	68.0	73.0
White	87.5	85.5	64.1	68.1
Nonwhite	12.5	14.5	61.7	65.7
Black	10.2	11.3	61.0	65.4
Total	100.0	100.0	63.8	67.8

^{a/} Middle-growth projection.

Source: Howard N. Fullerton, Jr. and John Tschetter,
"The 1995 Labor Force: A Second Look," Monthly Labor Review, vol. 106 (November 1983), p. 5.

in other words, in the factories of what was then the leading edge of the industrial revolution. However, well into this century, paid work was something a woman did prior to marriage. Much of the recent growth of female workforce participation, in contrast, reflects employment of married women, including those with children.

Increased female participation in the workforce has implications for the development of labor-market institutions. Women have been more likely than men, for example, to prefer part-time work. About 70 percent of the voluntary part-time workforce in the nonfarm sector was female in 1983. In that year, the average male worked 41 hours; the average woman worked 34.2/ The need for part-time work opportunities will require increasing employer flexibility, both with regard to total weekly hours and to the scheduling of those hours.

In theory, of course, the burden of child care and income generation might be split more evenly in the future so that part-time work might not be so heavily a female workforce issue. However, the labor-market data available do not suggest that changes in this direction are occurring rapidly. It is true, for example, that male workforce participation is declining. However, less than 2 percent of males outside the workforce cite household duties as the reason. Retirement is the largest single factor contributing to male nonparticipation.3/

Women who work -- and especially those who work full time -- have a keen interest in their remuneration. A key symptom of this concern is the "comparable worth" issue. Women have tended to work in female-dominated occupations -- particularly in the clerical area -- where wages have been lower than average. For much of the 1970s, weekly earnings of full-time females amounted to about 62 percent of the earnings of their male counterparts. After 1979, however, that ratio began to rise about one percentage point per year; by 1983 it had reached 66 percent.4/ Some of this advance was due to better relative compensation of younger women (compared with men) who have entered the labor market. And some was due to female penetration into higher-paying occupations. It may also be that some of the advance in the ratio was due to the comparable worth debate -- and the employer reaction. Because the wage gap is so wide, however, compensation-related issues can be expected to continue as major concerns over the next decade.

ii. Minorities in the Workforce.

The BLS projects an increase in nonwhite labor-force participation. This increase is expected to occur among nonwhite females. An increase in minority representation in the workforce suggests that the minority aspect of equal employment opportunity (EEO) policy will continue to be an important element of governmental (and judicial) intervention in the labor market. Generally, the 1970s saw an improvement in nonwhite occupational status. That is, having entered employment, nonwhites

(principally blacks) moved toward higher-paying and more prestigious jobs. Younger workers who found employment benefited from the shift in social attitudes and EEO policy, especially if they achieved a high educational attainment.

Obtaining employment, however, continued to be a more difficult problem for blacks than for whites. Black unemployment rates remained at roughly double the white levels. Slippage in black male participation continued to be a problem. The BLS projections do not assume that labor-market demand for employees will be stronger over the next decade than it was in the late 1970s. Indeed, the unemployment rate is expected to decline gradually in the projections to 6 percent by 1995, a rate marginally higher than existed in 1979 before the economy turned down. As will be seen below, the projections suggest that the types of jobs which are available to a population of below-average educational attainment, i.e., blue-collar factory jobs, will not be centers of employment expansion. Thus, minority labor-market problems can be expected to continue over the next decade.

iii. Changing Age Composition of the Workforce.

As already noted, the proportion of young people in the labor market will decline over the next decade. Since young people tend to have above-average unemployment rates, this reduction should help reduce overall structural unemployment. The changing demographics of the workforce between 1979 and 1995, absent other influences, might be expected to reduce the overall unemployment rate by perhaps half a percentage point.5/

There have been suggestions that the decline in the proportion of young people will produce shortages of entry-level labor. However, it must be remembered that workers at the entry-level ages are the most marginal members of the workforce. A gradually expanding economy will not necessarily put pressure on the youth labor market; their older counterparts will be the initial beneficiaries. Moreover, young people -- especially once they are beyond the ages affected by child labor laws -- have had a larger representation in blue-collar jobs than their elders. Since those jobs will not be centers of expansion, the youth labor market may not be as buoyant as some observers have predicted.

The aging of the workforce has implications for Social Security and pension planners. However, the "crunch" of the baby boom reaching retirement age will not come during the next decade. Indeed, the "dependency ratio" -- the ratio of the nonworking to the working population shown on Table 2 -- will decline from current levels by 1995. This decline will occur because the baby boomers will be of working age, not retirement age, during that period. In fact, the median age of the labor force by 1995 will be lower than it was in 1960, before the baby boom began to enter employment. The next decade should be a period of retirement asset accumulation.

Table 2

Dependency Trends			
	1960 (1)	1982 (2)	1995 ^{a/} (3)
Ratio of Nonworking to Working Population	1.5	1.1	.9
Dependents			
Children under 16 as Percent of Dependents	54%	46%	48%
Individuals aged 65 and over as Percent of Dependents	12%	20%	24%
Other Individuals as Percent of Dependents	33%	34%	28%
Median Age of the Labor Force (years)	41	35	37

^{a/} Middle-growth projection.

Source: See source cited on Table 1, pp. 6-7.

A combination of the increases scheduled in Social Security taxes, economic expansion, and the position of the baby boomers as tax payers rather than recipients, should take Social Security financial problems off the front pages. Private pension systems should benefit from similar forces. In addition, if it is true -- as many believe -- that federal deficits will keep real interest rates high, and that federal deficits will remain a feature of the economy, private pension assets will be yielding higher rates of return than their actuaries may have originally assumed. Thus, private pension funding problems should also recede.

II. Industrial Employment Trends.

BLS projections shown on Table 3 suggest that the largest employment expansions will occur in the service and financial sectors. At the same time, farm employment and domestic-servant jobs will continue their long-term historical decline. Government employment expanded rapidly until the mid-1970s. Since that time, under pressure of a tax-payer revolt, government ceased to be a growth sector. This trend -- modest expansion of public-sector jobs -- is expected to continue.

The economic slump which began in 1979 had a particularly harsh impact on such sectors as manufacturing and construction. But while BLS expects construction to "snap back" and actually expand its share of total employment by 1995, manufacturing is seen as having experienced a one-shot loss that is not to be recouped. Indeed, even after 1982, the bottom of the slump, manufacturing fails to maintain its share of total employment. These trends suggest that the current debate over "industrial policy" and the preservation of an "industrial base" is not merely recession-talk or election-talk. However, the degree of implementation of such proposals will depend importantly on the outcome of the 1984 elections; Democratic politicians have been receptive to the idea of industrial policy while Republicans have not._6_/

Whether included as "industrial policy" or not, pressures for protection of sensitive manufacturing industries against foreign competition are likely to continue. In this regard, it is not at all clear that the policy reactions of Democratic or Republican administrations will be all that different. The elevation of the U.S. dollar's price in terms of foreign currencies since the late 1970s has substantially disadvantaged American exporting and import-competing industries. Many believe that this appreciation of the dollar has been due to federal deficits which suck foreign financial investment into the U.S. through high interest rates. Should that effect continue throughout the decade, sentiment for import restrictions will grow._7_/

It is important, however, to put the manufacturing employment problem in perspective. As Table 4 shows, the manufacturing share of total employment began to decline prior to the economic slump

Table 3

Projected Industrial Employment Trends, 1979-95

Industrial Sector	Percent of Employment		Annualized Growth Rate	
	1979	1995 ^{a/}	1979-1995	1982-1995
Farm	2.8%	2.0%	-.7	-.8%
Nonfarm	97.2	98.0	1.4	1.8
Government	15.6	13.5	.5	.7
Federal	2.7	2.3	.4	.6
State and local	12.9	11.2	.5	.7
Private	81.6	84.5	1.6	2.0
Mining	.7	.7	1.3	1.2
Construction	5.8	6.2	1.9	2.9
Manufacturing	20.9	18.4	.6	1.5
Transport and utilities	5.4	5.2	1.1	1.4
Trade	21.9	22.4	1.5	1.8
Finance, insurance, real estate	5.4	6.0	2.1	2.1
Services except household	19.8	24.5	2.8	2.5
Household services	1.7	1.1	-1.5	-1.5
Total	100.0	100.0	1.4	1.7

^{a/} Moderate-growth projection.

Source: Valerie A. Personick, "The Job Outlook Theory 1995: Industry Output and Employment Projections," Monthly Labor Review, vol. 106 (November 1983), p. 26.

Table 4

Share of Manufacturing in Private, Nonfarm
Employment and Gross Product, 1959-95

	1959	1969	1979	1982	1995 ^{a/}
Share of Employment	31%	31%	26%	23%	22%
Share of Gross Output	28%	30%	28%	26%	28%

^{a/} Moderate-growth projection.

Source: Valerie A. Personick, "The Job Outlook Through 1995: Industry Output and Employment Projections," Monthly Labor Review, vol. 106 (November 1983), pp. 26, 28.

which commenced in 1979. The 1970s were generally years of slippage in manufacturing's share of employment. Nevertheless, the share of manufacturing in total OUTPUT does not show the same degree of erosion. This discrepancy is due to relatively rapid productivity growth in manufacturing as compared with other sectors of the economy. Manufacturing's output share in 1995 is expected to be about what it was in 1979 and 1959, although somewhat below the peak levels reached in the late 1960s. If manufacturing productivity simply grew at the same rate as national productivity, the manufacturing share of employment in 1995 would be about what it was in 1979. Thus, new technology, capital investment, and the like, account for much of the job slippage projected for manufacturing through 1995.

The changing industrial composition of the workforce will not have much effect on the average wage paid. There is a sufficient diversity of industries which will expand or contract their share of employment that average pay is unlikely to be increased or decreased substantially due simply to interindustry employment shifts, i.e., there will be no pronounced tendency for high-paid industries to expand relative to low-paid or vice versa. And on one dimension, the changing industrial mix will have a beneficial effect. The occupational injury rates will tend to decline -- perhaps on the order of half a percentage point -- as relatively "safe" sectors expand their proportions of total employment._8/

III. Occupational Employment Trends.

There has been a long-term trend toward greater white-collar employment as a proportion of the workforce. As Table 5 indicates, this trend is expected to persist over the next decade. The share of professional/technical, managerial/administrative, sales, and clerical jobs will rise. Service occupations will also expand more rapidly than the overall employed workforce. However, the only blue-collar occupational group to show a relative occupational expansion will be skilled craft workers. Unskilled and semiskilled laborers and operatives will contract their share of employment.

An historical perspective on these trends can be obtained from Table 6 which compares net job creation over 1960-79 by occupational class with the projections for 1979-95. Viewed in this net-change sense, the impact of technology and interindustry shifts can be seen as declines in the rate of expansion of all the blue-collar categories. A decline in the rate of expansion is also projected for clerical jobs, the result of office computerization. Service occupations show an increase in their rate of expansion. Farm occupations continue to decline in absolute terms, but the decline runs into diminishing returns; the rate of decrease decreases.

As in the case of interindustry employment shifts, the projected changing mix in occupations suggests no strong tendency

Table 5

Projected Occupational Employment Trend, 1979-95

Occupational Group	Percent of Employment		
	1979	1982	1995 ^{a/}
Professional, technical, and related	15.6%	16.3%	17.1%
Managers, officials, proprietors	9.0	9.4	9.6
Salesworkers	6.7	6.9	6.9
Clerical workers	18.3	18.8	18.9
Craft and related	12.2	11.4	11.6
Operatives	13.9	12.8	12.1
Service workers	15.5	16.0	16.3
Laborers except farm	6.2	5.8	5.5
Farmers and farmworkers	2.7	2.7	1.9
Total	100.0	100.0	100.0

^{a/} Moderate-growth projection.

Source: George T. Silvestri, John M. Lukasiewicz, and Marcus E. Einstein, "Occupational Employment Projections Through 1995," Monthly Labor Review, vol. 106 (November 1983), pp. 37-49.

Table 6

Net Job Creation by Occupational Group,
1960-79 and 1979-95

Occupational Group	Proportion of Net Job Creation		
	Actual 1960-79 (1)	Projected 1979-95 (2)	Change: 1979-95 minus 1960-79 (3)
Professional, technical, and related	23.9%	23.2%	-.7%
Managers, officials, proprietors	11.1	11.8	+7
Salesworkers	6.2	7.7	+1.5
Clerical workers	24.8	21.2	-3.6
Craft and related workers	13.8	9.3	-4.5
Operatives	8.6	5.3	-3.3
Service workers	15.3	19.5	+4.2
Laborers except farm	3.7	3.1	-.6
Farmers and farmworkers	-7.4	-1.1	+6.3
Total	100.0	100.0	0

Source: U.S. Bureau of the Census, Statistical Abstract of the United States, 1982-83 (Washington: GPO, 1982), p. 386; George T. Silverstri, John M. Lukasiewicz, and Marcus E. Einstein, "Occupational Employment Projections Through 1995," Monthly Employment Projections through 1995, Monthly Labor Review, vol. 106 (November 1983), pp. 38-43.

to raise or lower the average wage. But, there is a tendency to leave a hole in the middle of the occupational income distribution inherent in the BLS projections. As can be seen on Figure 1, except for the relatively insignificant farm and domestic-servant occupational classifications, the higher- and lower-paying occupations are those showing the most rapid employment expansions. The blue-collar trades in the middle tend to lag. In short, the changing occupational mix will exert a polarizing tendency on income distribution. Such trends cannot be helpful to those seeking to rise from the lower end of the earnings scale.

IV. The Union Sector.

The changing industrial pattern of employment has obvious implications for the union sector; it is adverse. This does not mean that unions cannot overcome their disadvantage by expanding into the growth sectors or increasing their representation in the traditional centers of unionization. But with the exception of the public sector, such a development has not been characteristic of the past three decades.

Of course, much the same could have been said in 1930. The outlook was grim, and if past experience was any guide, the union sector should have been substantially reduced by 1940. As is well known, quite the opposite occurred. But there are important differences between the 1930s and the present period.

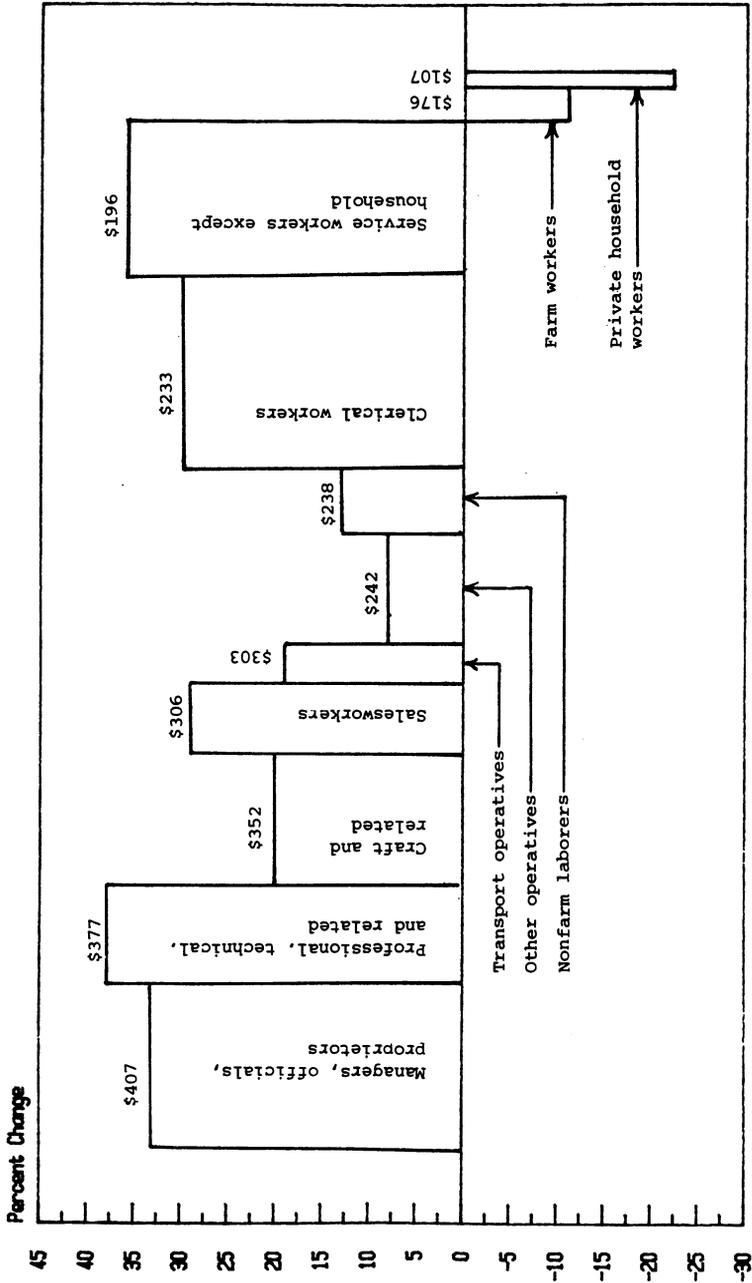
i. Erosion of Unionization.

Unions were able to buck historic trends in the 1930s because economic conditions became so miserable that employees -- disenchanted with their employers -- were willing to try something new. The economic slump which began in 1929 and which ultimately produced record unemployment rates for the post World War II period apparently failed to produce sufficient distress to replicate the experience of the 1930s. Perhaps the much maligned "social safety net" was sufficiently intact to cushion the high levels of unemployment. If that is the case, a reversal of current downward trends in the proportion of unionized employees is unlikely, unless it is believed that over the next decade another economic slump, far worse than the first, is probable.

One of the casualties of the budget pressures in the federal government has been annual data on unionization and on other aspects of industrial relations. However, there do exist data on private-sector workers covered by major union agreements (those covering 1,000 or more workers) on a detailed industry level. Table 7 provides the result of a tabulation using these data. It shows that the absolute number of union-represented workers covered by major contracts declined by 734,000 during 1972-79. If unions had simply maintained their 1972 proportions of production and nonsupervisory workers, however, they should have GAINED 919,000 workers. Thus, a total of almost 1.7 million hypothetical

Figure 1

Profile of Job Creation, 1979-1995



Note: Dollar figure refers to median weekly earnings of full-time wage and salary earners in the occupational group in 1981. Bar widths are proportionate to the share in employment of the occupational group in 1979. Bar heights are the percentage employment change projected by the U.S. Bureau of Labor Statistics (moderate-growth projection). See Table 5 for source.

workers who should have been in the major-union sector by 1979 in fact were not there. These are shown as an unexplained residual on the table.9/

A similar tabulation can be made for the period 1979-83, years in which the economic slump dominated the employment numbers. During those years, union representation in the major-contract sector declined by 1.5 million. Roughly half of this decline (764,000 workers) can be explained by declines in the number of production and nonsupervisory workers on a detailed industry basis. The remainder -- 740,000 workers -- form the unexplained residual for 1979-83.

These estimates are crude. But they suggest that underlying unionization has been eroding in the major-contract sector for reasons that go beyond employment trends to the tune of roughly 200,000 workers per year, both before and after 1979. During a period of general employment expansion, such as 1972-79, this unexplained erosion is largely masked; the actual decline was approximately half the unexplained residual. But during periods of general economic decline, the effect of the residual is intensified; during 1979-83, employment trends combined with the residual to double the observed effect.

The data of Table 7 are useful for two reasons. First, they help explain the wave of concession bargaining that struck the union sector after 1979. Underlying the loss of represented workers were the plant closings, bankruptcies, and mass layoffs, which forced the many wage freezes and cuts that characterized a number of industries. Second, they suggest a need to understand the sources of the unexplained, residual decline in unionization.

ii. Union and Nonunion Pay Trends.

Good data which separate union and nonunion wage adjustments became available only in the mid-1970s. Before that, estimates can be made, but with less certainty.10/ It does appear, however, that union wages generally rose faster than nonunion in the private sector from the end of the Korean War until quite recently. There were periods when the relationship reversed. However, during the 1970s the discrepancy in wage trends between the two sectors was probably widened by the presence of cost-of-living escalators in the union sector.

The Consumer Price Index (CPI) upon which these escalators were based was not a good measure of domestic "ability to pay" during the 1970s for two reasons. First, prices rose partly due to external shocks, such as the big OPEC oil price increases, which in fact had an adverse effect on energy-using (as opposed to the few energy-producing) employers. Second, the housing component of the CPI embodied a peculiar methodology giving a heavy weight to current mortgage interest rates -- which generally rose in the 1970s.11/ Both these influences pushed up the CPI faster than domestically-determined prices were actually rising.

Table 7

Change in Major Union Contract Coverage, Private
Sector, 1972-79 and 1979-83

	1972-79	1979-83
Decrease in Number of Workers Covered by Major Union Contracts	-734,000	-1,504,000
Explained by Industrial Employment Shifts	+919,000	-764,000
Unexplained	-1,653,000	-740,000

Source: Data for tabulation drawn from Monthly Labor
Review, Employment and Earnings, various issues.

Table 8 presents a comparison of union and nonunion wage trends from 1976 onwards. As can be seen from the table, union wage rates rose faster than nonunion until 1983, when the onslaught of concession bargaining and the more moderate behavior of the CPI -- mirrored in escalator clauses -- reversed the relationship. On a total compensation basis (including fringes and payroll taxes), even in 1983 pay rates in the two sectors rose at roughly the same pace.

A tendency for union pay to rise faster than nonunion could lead to a gradual erosion of the relative size of the union sector, i.e., the kind of erosion suggested by the unexplained residual of Table 7. The temptation for unionized employers to escape their unions, say by opening up new plants in hard-to-organize areas, would increase. Nonunion firms would have increasing competitive cost advantages which could enable them to widen their market shares. In any case, nonunion firms might intensify their efforts to resist unionization, fearful of adverse cost impacts.

The cost problem relative to foreign suppliers was attenuated until the late 1970s by dollar depreciation. Generally, during the 1960s and 1970s, foreign wage levels -- translated into U.S. dollars -- rose faster than American, at least in the industrialized countries. This trend seemed to reflect a catching up of foreign countries as they built up their capital stocks and adopted modern technology. But, as already noted, the trend halted abruptly when the dollar began to appreciate in the more recent period.^{12/} Thus, domestic and foreign competitiveness problems now coincide. And to these problems may be added de-regulation in a number of industries such as trucking and airlines which opened up entry to low-cost, nonunion operators.

iii. Changes in Public Policy.

Up to this point, it is doubtful that specific industrial relations policies of the Reagan administration have had much to do with the loss of union members. The economic slump had far more bearing on the loss than appointments to the National Labor Relations Board, the President's handling of the air-traffic controllers, or -- for that matter -- the Supreme Court's attitude toward bankruptcy and union contracts. If unions had been able to hold on to their 1979 shares of membership on a detailed industrial basis, the BLS projections discussed earlier would suggest that about 11 million workers would be covered by major union agreements in 1995. But unionization rates slipped on an industry-by-industry basis between 1979 and 1983 due to the economic slump. Given the 1983 rates, the projection for major union workers in 1995 would be about 10.1 million. Thus, the slump will have cost unions something like 900,000 members by 1995. Put another way, the policies of the Federal Reserve Board appear to have had a far-greater adverse impact on unionization than any specific Reagan administration, NLRB, or judicial decision.

Table 8

Annualized Wage Trends in the Private Sector, 1976-79

Year	Wage Rates		Total Compensation		Wage-Rate Changes Under Expiring Union Contracts	
	Union	Nonunion	Union	Nonunion	Escalated Contracts ^{a/}	Non-escalated Contracts
1976	8.1%	6.8%	-	-	7.8%	6.6%
1977	7.6	6.6	-	-	8.8	8.6
1978	8.0	7.6	-	-	8.1	7.2
1979	9.0	8.5	-	-	8.4	7.3
1980	10.9	8.0	-	-	8.4	7.5
1981	9.6	8.5	10.7%	9.4%	8.6	7.7
1982	6.5	6.1	7.2	6.0	8.8	7.4
1983	4.6	5.2	5.8	5.7	8.1	9.6
1984	-	-	-	-	3.9	7.4

(-) = not available

^{a/} Increases are slightly understated since final escalator adjustments may be omitted.

Source: Current Wage Developments, Monthly Labor Review, various issues.

However, the tenor of public policy will be important in the future. In principle, a more favorable climate might enable unions to overcome, at least partially, the 900,000 loss. Legislation such as the ill-fated Labor Law Reform bill of 1978 -- if supported by a friendly President and a receptive Congress -- would definitely aid union organizing efforts. Institution of an industrial policy would require some sort of labor representatives and would give unions added prestige and influence. Finally, in specific industries, administrative decisions could be made -- such as a return to the old method of computing the prevailing construction wage under Davis-Bacon -- which would limit nonunion competition.

V. Gain Sharing and Job Security.

Until this point, the analysis of this paper has been essentially descriptive, either of past trends or probable future developments. However, there are some changes in compensation determination at the workplace -- still in embryonic form -- which could be very significant for economic performance at both the micro and macro levels. Much depends on whether these changes -- moves in the direction of gain-sharing compensation plans -- continue in the face of economic recovery and whether public policy tilts toward supporting them. As yet, the outlook is uncertain.

Economists have noted a tendency for wage decisions to be relatively insensitive to market conditions. Only in extreme cases, such as the concession bargains which were reached in the period beginning in 1979, does dramatic wage sensitivity to market forces appear. However, the drastic deterioration of the economy which provoked the concessions can hardly be viewed as an ideal way to promote increased sensitivity.

One of the results of the concession bargains was an increased interest on the part of unions and employees in job security. This is natural in a period of high unemployment. It is also a natural concern for an aging workforce. As workers age, the costs of involuntary mobility increase. Job loss is a more serious matter for older workers -- especially those with dependents -- than for youngsters.

There appears in addition to be a growing usage of legal remedies for purposes of maintaining job security. Some debate exists over the degree to which the doctrine of at-will employment is eroding.^{13/} However, few would argue that some significant erosion has not occurred. In any case, with the development of EEO remedies for discrimination on the basis of race, sex, and age, many employees have been afforded a possible avenue of appeal for discharge. Only about one fifth of the paid workforce is not covered by civil-service protections or union contract protections and is white, male, and under 40 years old. It is true that plaintiffs in EEO cases must allege some type of discriminatory

behavior aimed at a protected class. But the threat of potentially costly litigation is itself a weapon to which employers will respond.

While the proponents of mandatory limitations on the right to discharge and the right to close plants and layoff seem unlikely to prevail at the federal level in the near term, their cause could eventually attract more political support than it has to date. Neither liberals nor conservatives want to lose their jobs and, as the workforce ages, calls for legislative remedies could eventually prevail. The move toward job-security protections, by statute, contract, or unilateral personnel policy, raises important issues for compensation.

Ups and downs of demand need to be accommodated by someone or something. Job security in the face of inflexible wage setting must inevitably be security for one group at the expense of another. As academics accustomed to operating within a tenure system can readily attest, job guarantees to an older, more senior group inherently imply more job insecurity and instability for entry-level, untenured employees.

The annual payroll of a firm, or an industry, or the economy as a whole, can be thought of as the product of the annual wage per employee (including all fringe benefits and payroll taxes) times the number of employees. In the past, the standard practice has been to protect some workers from employment fluctuations through formal or informal seniority systems, let other workers absorb the fluctuations via employment variations, and leave wage setting as relatively insulated from the process. Thus, a 10 percent reduction in a firm's payroll might be accomplished by laying off 10 percent of the workforce in reverse order of seniority.

This approach to accommodating demand fluctuations "works" in the sense that it does cut the payroll. But if the insulated group of workers becomes too large, there may not be available a sufficiently-large junior group to lay off. Thus, the more society pushes toward job security, the more it must consider increased wage flexibility as the accommodating element.

Table 9 illustrates this point. The table presents actual data on changes in full-time equivalent employment and pay rates for 21 manufacturing industries during 1979-83. Column (1) shows the annualized rate of full-time equivalent employment adjustment over this period. The industries are ranked by their magnitude of employment change and appear in rank order. Only two industries experienced an increase in employment during 1979-83; the other nineteen exhibited employment declines.

Imagine that pay rates in these industries were set in a bargaining process between a union and a single employer, or alternatively, that all employers shared proportionately in employment changes and bargained their pay rates with a union or unions. Suppose the parties desired to implement a system in

Table 9

Actual and Employment-Stabilizing Pay Changes
in Twenty-One Manufacturing Industries, 1979-82

Industry	Annualized Change Over 1979-82 in:			Difference (2) - (3) = (4)
	Full-time Equivalent Employment	Actual Pay Rates ^{a/}	Pay Rates Need to Avert Employment Decline ^{a/}	
	(1)	(2)	(3)	
1. Instruments	1.3%	11.2%	11.2%	0%
2. Printing and publishing	.6	9.1	9.1	0
3. Tobacco	-1.0	13.8	12.7	-1.1
4. Chemicals	-1.1	10.4	9.2	-1.2
5. Other transport equipment	-1.5	10.5	8.9	-1.6
6. Electrical machinery	-1.8	10.6	8.7	-2.0
7. Food	-2.0	9.1	6.9	-2.2
8. Petroleum	-2.0	12.2	10.0	-2.2
9. Paper	-2.3	9.5	7.0	-2.5
10. Machinery except electric	-3.4	9.3	5.6	-3.7
11. Leather	-3.7	8.5	4.5	-4.0
12. Rubber	-4.1	9.2	4.8	-4.5
13. Apparel	-4.2	7.9	3.3	-4.5
14. Furniture	-4.9	8.9	3.6	-5.3
15. Misc. manufacturing	-5.1	10.3	4.7	-5.6
16. Fabricated metals	-5.8	8.7	2.4	-6.4
17. Textiles	-6.1	7.8	1.2	-6.6
18. Stone, clay, glass	-7.2	9.2	1.3	-7.9
19. Lumber	-8.9	7.3	-2.3	-9.5
20. Primary metals	-10.1	8.4	-2.5	-10.9
21. Motor vehicles	-10.9	9.2	-2.8	-11.9
Mean	-4.0%	9.6%	5.1%	-4.5%

^{a/} Total compensation per full-time employee equivalent.

Source. Data for calculation drawn from Survey of Current Business, vol. 63
(July 1983), pp. 71-72.

which employment would not decline, even if demand for labor decreased. Consider the chemical industry which appears on row (4) of Table 9. During 1979-83, employment declined at a rate of 1.1 percent per annum. Pay rates increased at an annual rate of 10.4 percent during this period.¹⁴ The union might propose to the employer that rather than cut employment by 1.1 percent, the employer should instead keep employment from declining and raise pay by a somewhat slower rate of 9.2 percent. The employer would thereby achieve the same reduction in payroll costs that could be accomplished with a 1.1 percent employment reduction and a 10.4 percent pay increase.

A similar calculation is made for all of the industries listed on Table 9. Since two of the industries in fact expanded employment, no pay "concession" is needed for the top two rows. All of the other industries must accept a reduction in the rate of pay increase. However, only in three industries [rows (19)-(21)] is an absolute decrease in nominal pay required. For all manufacturing industries, employment stability could be "bought" by raising average pay by 5.1 percent per annum rather than 9.6 percent.

It is likely that this reduction in the rate of pay increase overstates what would actually need to be bargained. First, since the goal would really be avoiding layoffs, and since normal turnover would create a natural attrition of the workforce, a higher rate of pay increase than the 5.1 percent average could be accommodated. Second, employers would undoubtedly find some economic uses for the "excess" workers they agreed to retain, and would be willing to pay something extra for their services. Third, if pay increases had proceeded more slowly during 1979-83 in reaction to recessionary pressures, those pressures themselves would have been relaxed. The economic slump which began in 1979 was deliberately induced by the Federal Reserve to reduce the rate of inflation. If the pace of wage increase had quickly slowed, price inflation would have been reduced more rapidly and the Federal Reserve would have eased off more quickly and allowed a recovery sooner.

Gain-sharing plans provide an automatic adjustment of an element of compensation to an index of economic welfare of the employer such as profitability. Such measures of welfare are likely to be strongly influenced by general economic conditions. Thus a gain-sharing economy is more compatible with employment security than the current pattern of relatively insensitive pay determination. A gain-sharing economy would also be less beset by deliberately-induced recessions designed to restrain inflation. Moves toward demand restraint would quickly accomplish their anti-inflation ends and would be quickly terminated.

But while gain sharing has enjoyed an increase in popularity due to concession bargaining, it was actually included in a relatively small proportion of concession agreements. Among larger firms, profit-sharing and similar arrangements cover

perhaps one fourth of the workforce.^{15/} But many of the plans listed as "profit sharing" actually function as ersatz pension programs with the employer payment not clearly related to economic conditions. Moreover, the proportion of workers covered by profit sharing in smaller firms is undoubtedly lower than the one-fourth estimate.

Growth of gain sharing should have an appeal to advocates of other forms of worker "participation" in the activities of their employers. If workers are given a share in decision making -- through quality circles or some other device -- there is a symmetry in granting them a share of the fruits of those decisions, sweet or bitter as the case may be. Similarly, if workers share in the fruits of decision making through gain-sharing plans, they should logically be given a voice in the decisions themselves.

Ultimately, appealing as gain sharing is as an abstract concept, it will not become a substantial element of compensation unless public policy tilts in its favor. Educational programs to foster the use of gain sharing would be helpful. But also required are economic incentives -- probably in the form of favorable tax treatment -- if gain sharing is to take hold on a large scale. Tax incentives have been used to foster all manner of fringe benefits in recent years. Perhaps this large tax expenditure needs to be refocused to provide incentives for a particular benefit of substantial importance to economic performance.

VI. Conclusions.

The world of work is indeed changing. Some of the changes are gradual and inevitable. They are responses to long-term demographic trends which reflect themselves in the labor force. Others are the results of important societal attitude shifts and incentives which lead to changes in labor-force participation of the various demographic groups. Still others reflect changes in the marketplace -- both domestic and international -- which condition the mix of American industries and their relative claims on total employment. To some degree, market pressures can be resisted or deflected by alternative public policies. The current debate over the efficacy of having an industrial policy is a reflection of such marketplace pressures. Finally, a combination of technological change and industry composition determines the occupational pattern of employment. Changing occupational demands can hinder the advancement of some groups and -- at the same time -- enhance opportunities for others.

Over the next ten years, the labor force will age. It will not become elderly, just more middle-aged. The aging process will bring with it more concern about job security. At the same time, the proportion of women in the workforce will continue to grow. The result will be more attention to female/male pay differentials

and to the availability -- or lack thereof -- of more flexible working hours and employment structures generally. The combination of larger representation of both female and minority workers will maintain EEO issues as major policy concerns.

Unionization of the labor force has been declining since the mid-1950s, and the projected changes in industrial employment mix suggest continued decline. The public sector has been the major area of employment that defied the downward trend. But government is not likely to be a growth industry over the next decade and it is already heavily unionized as compared with the private sector. The economic slump which began in 1979 had an especially adverse effect on union membership which will be difficult to make up. Public policy in the labor-relations arena has shifted toward the employer side, thanks to various court and administrative decisions. These shifts had little effect on the pace of concession bargaining up through 1983. But they could affect the ability of unions to organize in the future. Obviously, the 1984 elections could have a dramatic impact on the tenor of federal labor relations policy.

Finally, there has been an increased interest in more flexible compensation systems through the gain-sharing approach. As yet it is too early to tell if the increased interest will lead to a substantial expansion of profit sharing and other forms of gain sharing. But such a development would be desirable, especially in an economy which is focusing more heavily on job security. A gain-sharing economy would also be a more stable and less inflationary environment. Public policy ought to tilt toward support of such flexible compensation approaches.

FOOTNOTES

1. The BLS projections are reported in five articles which appear in the MONTHLY LABOR REVIEW, vol. 106 (November 1983), pp. 3-58. These projections replace those released in the late 1970s. For an analysis of the changing labor market based on those earlier estimates, see Daniel J.B. Mitchell, "The Employment Relationship in the 1980s" in Eric G. Flamholtz, ed., HUMAN RESOURCE PRODUCTIVITY IN THE 1980S (Los Angeles: UCLA Institute of Industrial Relations, 1982, pp. 3-76. Some of the themes of this paper were previously developed in that earlier essay. Readers interested in labor-force projections might also wish to consult Wassily Leontief and Faye Duchin, "The Impacts of Automation on Employment, 1963-2000," unpublished draft final report available from the Institute for Economic Analysis, New York University, September 1983. A review of the accuracy of earlier BLS projections can be found in Max L. Carey and Kevin Kasunic, "Evaluating the 1980 Projections of Occupational Employment," MONTHLY LABOR REVIEW, vol. 105 (July 1982), pp. 22-30.
2. See EMPLOYMENT AND EARNINGS, vol. 31 (January 1984), pp. 193-194.
3. Out of the 17.3 million men who said that they were not in the labor force because they did not want a job, 303,000 cited "keeping house" as the reason for their nonparticipation in 1983. Retirement was given as the reason by 9.2 million. IBID., p. 196.
4. Figures for 1983 can be found in "Real Weekly Earnings of Families Increased 7.6 Percent over Year," DAILY LABOR REPORT, January 31, 1984, p. B13.
5. Data for fourteen age-sex groups were used to make the calculation. Age classes were 16-19, 20-24, 25-34, 35-44, 45-54, 55-64, and 65 and older. The overall unemployment rate for all groups was 5.8 percent in 1979. With the same group-level unemployment rates, but with the 1995 demographic labor-force pattern, the overall unemployment rate would have been 5.2 percent, using the BLS' middle-growth projection. See Table 1 for source of BLS data for 1995.
6. Democratic proposals for industrial policy can be found in RESTORING AMERICAN COMPETITIVENESS: PROPOSALS FOR AN INDUSTRIAL POLICY (Washington: Center for National Policy, Alternatives for the 1980's issue no. 11, 1984). The (negative) views of the Reagan administration's Council of Economic Advisors can be found in U.S. President, ECONOMIC REPORT OF THE PRESIDENT 1984 (Washington: GPO, 1984), pp. 87-111. However, it should be noted that not all Democratic advisors have been enthusiastic about industrial policy. See, for example, Charles L. Schultze, "Industrial Policy: A Dissent," THE BROOKINGS REVIEW,

vol. 2 (Fall 1983), pp. 3-12.

7. The current "voluntary" quotas on Japanese cars are an example of such restrictions.
8. The occupational injury rate in 1979 was 9.2 percent, i.e., there were 9.2 occupational injuries per 100 full-time workers. See U.S. Bureau of Labor Statistics, OCCUPATIONAL INJURIES AND ILLNESS IN 1979: SUMMARY (Washington: GPO, 1981), bulletin 2097, Table 4. Data from this publication were used on a detailed-industry basis in conjunction with BLS industrial employment projections for 1995 (moderate trend) to generate a hypothetical injury rate for that year. The rate drops approximately half a percentage point over 1979-95.
9. The BLS breaks down the number of workers under major union agreements on an annual basis in various issues of the MONTHLY LABOR REVIEW. Data are available on 41 separate industries. These industries were used for the projections described in the text. There were 10.2 million workers under major union agreements in 1972, 9.4 million in 1979, and 7.9 million in 1983.
10. For estimates prior to 1976, see Daniel J.B. Mitchell, UNIONS, WAGES, AND INFLATION (Washington: Brookings Institution, 1980), pp. 39-53.
11. For discussion, see Daniel J.B. Mitchell, "Should the Consumer Price Index Determine Wages?", CALIFORNIA MANAGEMENT REVIEW, Vol. 25 (Fall 1982), pp. 5-21.
12. See Daniel J.B. Mitchell, "International Convergence with U.S. Wage Levels," PROCEEDINGS of the Industrial Relations Research Association, December 1983, forthcoming.
13. See Jack Stieber, "Employment-at-Will: An Issue for the 1980's," PROCEEDINGS of the Industrial Relations Research Association, December 1983, forthcoming.
14. "Pay" refers to total compensation including fringes and payroll taxes paid by the employer.
15. The Chamber of Commerce reports that 23 percent of the employers in a 1982 survey made profit-sharing payments to employees. A Hewitt Associates survey for 1983, covering plans applicable to salaried-exempt employees, reported that 20 percent of respondents had a deferred profit-sharing plan. These two surveys tend to concentrate on larger employers.
See Chamber of Commerce of the United States, EMPLOYEE BENEFITS 1982 (Washington: Chamber of Commerce, 1984), p. 21; Hewitt Associates, SALARIED EMPLOYEE BENEFITS PROVIDED BY MAJOR U.S. EMPLOYERS IN 1983 (Lincolnshire, Ill.: Hewitt Associates, 1984), p. 4