Labor market changes and adjustments: how do the U.S. and Japan compare?

Both countries are flexible in how they react to structural changes in the labor market, with each using different methods and programs to adjust to such changes rather quickly

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Japan is beginning to experience the same sort of economic restructuring that the United States has faced during the last decade or so. Although manufacturing employment is declining (both in an absolute and relative sense), it still plays a larger role in total employment and output in Japan than in the United States.

Large trade deficits in the aggregate or in specific industries may lead to worker dislocations. The ability of the labor market to respond and adjust to change can be considered a competitive factor. For example, if workers can move quickly from declining industries to growing industries, the economy can be more responsive to international competition. Because much of U.S. trade is in merchandise, not services, the manufacturing industry plays a prominent role in international trade. How, then, does the continued job shift to services affect our ability to lower our trade deficit?

This article analyzes labor market flexibility and adjustment capabilities of Japan and the United States. It examines the job shift to services and trends in wages, productivity, and exchange rates to judge the international competitive position of each country.

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Job shift to services

The number and proportion of jobs in the service sector of Japan and the United States are increasing. However, the magnitude and the timing of the increase are different. In 1987, for example, 71 percent of U.S. workers were employed in services, compared with 58.5 percent of Japanese workers. (See table 1.)

In 1960, Japanese agricultural employment constituted 30 percent of total employment, and was higher than employment in manufacturing. By 1987, agricultural employment in Japan had dropped to 8 percent of total employment. This is almost 3 times higher than in the United States, where agricultural employment as a percent of the total has been declining for most of this century. The manufacturing share of total employment peaked in Japan in the early 1970's at around 28 percent, slipping to 24 percent in 1987. In the United States, the share has been drifting downward for a much longer period, and fell below 19 percent in 1987. (See table 1.)

From an employment standpoint, the service sector is dominant in both countries. Agriculture and manufacturing play a larger role in Japan than in the United States, but their share in Japan is declining. Although the two countries are following the same path, the shift from an agricultural to an industrial economy, then to a service or information-based economy started much sooner in the

United States and has, therefore, progressed further.

Does the shift to services, especially in the United States, imply that the United States and Japan are losing their industrial base? Given that around 70 percent of U.S. merchandise exports are in manufacturing, a declining industrial base would make it more difficult for the United States to lower its trade deficit unless exports of services increase dramatically. So, is the job shift to services another factor contributing to the large U.S. merchandise trade deficit?

A recent study by Ronald Kutscher and Valerie Personick examined whether changes in employment and output in manufacturing declined either in absolute or in relative terms.[1] Kutscher and Personick noted that an absolute decline is more serious than a relative one, and that production declines are a more alarming signal of a reduction in the industrial base than employment declines. For example, a decline in employment need not necessarily signify an erosion of the industrial base if real output is still increasing.

Manufacturing employment in the United States in absolute terms has been around 20 million for the last 20 years. At 19.2 million in 1987, it was only slightly below its prerecession level. Although the percentage of total U.S. employment in manufacturing has declined, real U.S. manufacturing output as a percent of real gross domestic product (GDP), at 22 percent in 1985, has actually increased somewhat recently. The following tabulation shows real manufacturing output as a percent of real gross domestic product in the United States and Japan, 1970–85:[2]

	1970	*1975*	*1980*	*1985*
United States (1982 dollars)	21.1	20.5	21.2	22.1
Japan (1981 yen)	25.9	25.9	29.3	35.0

On this basis, the U.S. industrial base at the aggregate level is not disappearing. However, there have been steady declines in both output and employment for individual U.S. industries such as steel, leather, and tires.

A recent Office of Technology Assessment study shows that only 6 of 21 major manufacturing industries experienced an increasing share of gross national product from 1979 to 1986—about enough of a rise to offset the decline in the majority of industries. Interestingly, nonelectrical machinery, which includes computers, was the only major industry showing a big increase in shares. The study concludes that if it were not for the computer industry, the U.S. economy might well be deindustrializing.[3]

In Japan, moreover, manufacturing output as a percent of gross domestic product increased substantially from 29 to 35 percent between 1980 and 1985. Regardless of the reason, manufacturing accounts for a much higher percentage of gross domestic product in Japan than in the United States. More importantly, the gap between the two countries is widening. This implies that as recently as 1985, the Japanese were successfully competing internationally in manufacturing. Can the United States keep pace? A discussion of these issues follows.

Table 1. Percent distribution of civilian employment by economic sector, 1960–87

Year	Agricultural sector[1]		Goods-producing sector				Service sector[3]	
			Total[2]		Manufacturing			
	United States	Japan	United States	Japan	United States	Japan	United States	Japan
1960	8.5	29.5	33.4	28.5	26.1	21.7	58.1	41.9
1965	6.3	22.7	34.2	32.5	27.0	24.8	59.5	44.8
1970	4.5	16.9	33.1	35.7	26.4	27.4	62.3	47.4
1971	4.4	15.5	31.7	35.9	24.7	27.4	63.8	48.6
1972	4.4	14.4	31.4	36.2	24.3	27.3	64.2	49.4
1973	4.2	13.1	32.0	37.0	24.8	27.8	63.8	49.9
1974	4.2	12.6	31.4	36.8	24.2	27.6	64.5	50.6
1975	4.1	12.4	29.5	35.6	22.7	26.1	66.4	52.0
1976	3.9	11.9	29.6	35.6	22.8	25.8	66.5	52.5
1977	3.7	11.6	29.7	35.1	22.7	25.3	66.6	53.3
1978	3.7	11.4	30.0	34.8	22.7	24.8	66.3	53.8
1979	3.6	10.8	30.2	34.7	22.7	24.6	66.3	54.5
1980	3.6	10.1	29.3	35.1	22.1	25.0	67.1	54.8
1981	3.5	9.7	28.9	35.0	21.7	25.1	67.6	55.3
1982	3.6	9.4	27.2	34.5	20.4	24.7	69.2	56.0
1983	3.5	8.9	26.8	34.4	19.8	24.8	69.7	56.6
1984	3.3	8.5	27.2	34.5	20.0	25.2	69.4	56.9
1985	3.1	8.4	26.9	34.6	19.5	25.3	70.0	57.0
1986	3.1	8.1	26.6	34.2	19.1	24.9	70.4	57.6
1987	3.0	8.0	26.0	33.5	18.6	24.3	71.0	58.5

[1] Includes agriculture, forestry, hunting, and fishing.

[2] Includes manufacturing, mining, and construction.

[3] Includes transportation, communication, public utilities, trade, finance, public administration, private household services, and miscellaneous services.

NOTE: Data have not been fully adjusted for comparability with U.S. definitions. Also, some employment could not be distributed by economic sector. Because of rounding, subtotals may not add to totals.

SOURCE: *Statistical Supplement to International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, June 1988).

Manufacturing productivity and labor costs

The ability of the U.S. manufacturing industry to compete internationally hinges on several factors, such as the cost and quality of the product. This in turn depends on overall labor costs, exchange rates, and labor productivity rates.[4] An examination of some recent trends reveals that the U.S. competitive situation is improving relative to Japan.

In 1987, as a result of a labor productivity increase in manufacturing (for the fifth consecutive year) and continued wage restraint, the United States showed a decline in unit labor cost—a useful measure of competitiveness. In assessing changes in unit labor costs in competitive terms, changes in the market value of each country's currency must be taken into account. The U.S. dollar has depreciated strongly against the yen and other currencies since 1985. Therefore, the relative improvement in U.S. manufacturing labor costs measured in national currency has been greatly enhanced by exchange rate movement. Japan's unit labor costs, measured in U.S. dollars, rose more than 40 percent in 1986 and 13.5 percent in 1987. (See table 2.)

Manufacturing output growth, which is related to a variety of factors, including improved international competitiveness, was higher in the United States than in Japan during 1986. Although output growth slowed significantly in 1986 in Japan, possibly a reflection of the appreciating yen, it recovered quickly in 1987. During that year, the percent change in output per hour in manufacturing was once again more than that in the United States. Manufacturing employment, which declined slightly in Japan in 1986, dropped significantly (1.1 percent) in 1987. At 14.2 million in 1987, manufacturing employment in Japan is still very near its all-time high of 14.5 million, reached in 1985.

In the United States, the comparable manufacturing employment figure has hovered around 20.9 million over the past 4 years.[5] However, there have been significant employment shifts among individual manufacturing industries. Also, some worker groups were more likely to suffer job losses than other groups.

Table 2. Changes in productivity and related measures in manufacturing, United States and Japan, 1960–87

[In percent]

Year	United States	Japan
Output per hour:		
1960–87	2.8	7.7
1960–73	3.2	10.3
1973–87	2.5	5.3
1973–79	1.4	5.5
1979–87	3.4	5.1
1985	5.1	7.3
1986	3.7	1.7
1987	2.8	4.1
Hourly compensation (in national currency):		
1960–87	6.2	11.3
1960–73	5.0	15.1
1973–87	7.3	8.0
1973–79	9.5	12.8
1979–87	5.7	4.5
1985	5.3	4.9
1986	3.3	4.9
1987	1.3	1.4
Unit labor costs (in national currency):		
1960–87	3.3	3.4
1960–73	1.8	4.3
1973–87	4.7	2.6
1973–79	8.0	6.9
1979–87	2.2	-0.6
1985	0.2	-2.3
1986	-0.4	3.2
1987	-1.5	-2.5
Unit labor costs (in U.S. dollars):		
1960–87	3.3	6.9
1960–73	1.8	6.6
1973–87	4.7	7.3
1973–79	8.0	10.8
1979–87	2.2	4.7
1985	0.2	-2.7
1986	-0.4	46.1
1987	-1.5	13.5
Output:		
1960–87	3.4	8.7
1960–73	4.8	12.8
1973–87	2.2	6.2
1973–79	1.9	3.6
1979–87	2.4	6.2
1985	4.3	8.4
1986	2.8	0.6
1987	3.8	3.4

NOTE: Rates of change based on the compound rate method.

SOURCE: "Trends in manufacturing productivity and labor costs in the U.S. and abroad," *Monthly Labor Review*, December 1987, pp. 25–30; and "International Comparisons of Manufacturing Productivity and Labor Cost Trends 1987," *News Release*, 88–326 (U.S. Department of Labor, July 6, 1988).

Employment changes and job losses

Given the size of the merchandise trade deficit and the recent swings in exchange rates, there is little doubt that distribution of employment by industry has been affected. In theory, exchange rate changes affect the movement of labor between industry sectors primarily through changes in export and import prices. Depreciation of the dollar raises dollar prices of U.S. imports, leading to increased production and employment in import-competing industries. Also, depreciation lowers foreign currency prices of U.S. exports, making them more competitive in international markets, which leads to increased production and employment in export-oriented industries. The result is an improvement in the trade balance, at least once trade volumes have had time to adjust to price changes.

It is difficult to tie changes in the U.S. trade deficit to changes in exchange rates on a country-by-country basis. The extent of U.S. dollar depreciation varies substantially across trading partners. Also, there are several measures of currency movements, differing in their estimates of change depending on the methodology used.[6] What is important for the U.S. trade deficit is movement of the U.S. dollar against a basket of other currencies. Based on the Federal Reserve System Board of Governors widely

used 10-country inflation-adjusted exchange rate index, the U.S. dollar had begun to appreciate in 1979, peaked in 1985, and had nearly fallen back to its 1979 level as of fourth-quarter 1987.[7] (See table 3.) A Morgan Guaranty Trust Co. index cited by BLS shows a similar trend.[8] New BLS dollar exchange rate indexes in national currency terms for export and import levels separately show that the trade-weighted value of the dollar fell 33 percent for imports and 27 percent for exports between the first quarter of 1985 and the last quarter of 1987.[9]

Paralleling exchange rate movement, the U.S. merchandise trade balance worsened between 1980 and late 1986, but has improved subsequently. Growth in export volume, which began in 1984, finally outpaced the continued growth in import volume in 1987. (See table 4.) It is surprising that import volume continued to rise after the dollar weakened. Possible explanations of this phenomenon include foreign exporters absorbing some of the currency shift and increased trade with countries whose currency did not appreciate against the dollar.[10]

Of course, import and export volume varies by industry. Useful measures of "trade sensitivity" are: for imports, the percentage of an industry's new supply accounted for by imports, and for exports, the percentage of an industry's shipments that are exported. In 1985, export-oriented industries included chemicals, machinery, transportation equipment, and instruments. All of these industries experienced declines in export shares during the period of dollar appreciation. (See table 5.)

Table 3. Foreign exchange rates, 1967–87
[Currency units per U.S. dollar, except as noted]

Period	Japan (yen)	Multilateral trade-weighted value of the U.S. dollar	
		Nominal	Real[1]
March 1973	261.83	100.0	100.0
1967	362.13	120.0	—
1968	360.55	122.1	—
1969	358.36	122.4	—
1970	358.16	121.1	—
1971	347.78	117.8	—
1972	303.12	109.1	—
1973	271.30	99.1	98.8
1974	291.84	101.4	99.2
1975	296.78	98.5	93.9
1976	296.95	105.6	97.3
1977	268.62	103.3	93.1
1978	210.38	92.4	84.2
1979	219.02	88.1	83.2
1980	226.63	87.4	84.8
1981	220.63	102.9	100.8
1982	249.06	116.6	111.7
1983	237.55	125.3	117.3
1984	237.45	138.3	128.5
1985	238.47	143.2	132.0
1986	168.35	112.2	103.3
1987	144.60	96.9	90.6

[1]Adjusted by changes in consumer prices.

NOTE: Dashes indicate data not available.

SOURCE: Board of Governors of the Federal Reserve System.

Table 4. U.S. merchandise exports and imports, 1979–87
[In billions of 1982 dollars]

Year	Exports	Imports	Net exports
1979	218.2	277.9	-59.7
1980	241.8	253.6	-11.8
1981	238.5	258.7	-20.2
1982	214.0	249.5	-35.5
1983	207.6	282.2	-74.6
1984	223.8	351.1	-127.3
1985	231.1	370.2	-139.1
1986	244.6	420.2	-175.6
1987[1]	282.0	443.5	-161.5

[1]Preliminary.

NOTE: Data are based on National Income and Product Accounts; seasonally adjusted annual rates.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

Import-sensitive industries, in which import penetration rose as the dollar strengthened, included apparel, leather, primary metals, machinery, transportation equipment, instruments, and miscellaneous manufactures. As shown, some industries are both export-oriented and import-sensitive.

Employment changes. Although manufacturing employment in the United States has increased during the current economic recovery, it has not returned to its prerecession peak in 1979. However, some import-sensitive manufacturing industries, such as primary metal industries, apparel and other textile products, and leather and other leather products, have continued to experience job losses. (See table 6.) It is not clear how much appreciation of the dollar may have contributed to these long-term employment declines.

Many import-sensitive industries have experienced continuing employment declines largely unrelated to movements in the exchange rate. On the export side, employment in some export-oriented industries declined following the dollar's appreciation. However, it is difficult to isolate effects of currency appreciation from other factors (such as slow growth in Europe). Finally, many industries are in the service sector where the level of trade is much lower than in manufacturing, and where employment growth has been strong during periods of depreciation as well as appreciation.

Job losses. Major structural economic changes such as those in international competition, technological change, deregulation, and demand shifts can lead to job losses, often referred to as "structural" unemployment. There are several useful measures of structural unemployment: long-term unemployment, job-loser unemployment, and the number of displaced workers. Although the evidence is mixed as to which of the two countries is experiencing greater "structural unemployment," both countries still have a problem.

Table 5. U.S. imports as a percent of new supply (import penetration) and U.S. exports as a percent of product shipments (export proportion), by major manufacturing group, selected years

Industry	Import penetration			Export proportion		
	1972	1979	1985	1972	1979	1985
All manufacturing	6.1	7.8	11.7	5.6	8.5	7.9
Food	3.9	4.3	4.3	2.9	4.9	3.6
Tobacco	0.6	0.6	0.5	5.7	11.8	8.1
Textiles	5.6	4.6	7.7	2.9	6.0	3.6
Apparel	7.0	12.7	22.4	1.2	3.4	1.8
Lumber	9.4	10.4	10.5	4.1	7.6	5.3
Furniture	2.6	4.5	9.2	0.6	1.7	1.6
Paper	5.6	6.7	7.1	4.1	5.1	4.3
Printing and publishing	1.0	1.0	1.2	1.3	1.7	1.2
Chemicals	3.2	4.2	6.5	7.6	12.8	11.6
Petroleum refining	7.1	7.3	9.5	1.9	1.5	3.1
Rubber	4.7	5.4	6.3	3.1	4.8	3.9
Leather	15.9	29.4	49.6	1.8	5.2	6.1
Stone, clay, and glass	3.7	4.8	7.6	2.4	3.8	3.4
Primary metals	8.9	11.0	16.6	2.8	4.0	3.7
Fabricated metals	2.5	3.6	5.5	3.9	5.6	4.7
Machinery, except electrical	5.4	7.8	13.9	14.9	20.3	20.1
Electrical machinery	7.6	11.0	17.0	6.7	12.2	10.1
Transportation equipment	9.8	11.8	18.4	9.2	13.3	13.0
Instruments	6.7	10.3	13.7	12.6	18.3	15.5
Miscellaneous manufactures	13.3	20.0	35.0	7.6	12.7	8.1

NOTE: New supply is defined as imports plus domestic product shipments. Imports as a percent of new supply is a commonly used measure of import penetration.

SOURCE: U.S. Department of Commerce.

Historically, the unemployment rate in Japan has been lower than in the United States, even when adjusted for conceptual differences.[11] However, a different view results when a more comprehensive measure of labor underutilization is used: the unemployment gap between the two countries is not as wide as it first appears because the broader measure includes groups in which a substantial part of Japan's labor underutilization falls. (See table 7.)

From a policy standpoint, the focus is usually on workers who may have difficulty becoming employed or re-employed. This latter group would include workers who are involuntarily out of work, often referred to as displaced workers. Although both countries attempt to count such workers, the definitions are so different that the data are not comparable. However, indirect measures of displacement are available, derived from data collected in regular labor market surveys. In most industrialized countries, these surveys collect data on reasons for unemployment: new entrants, re-entrants, job leavers, and job losers. The latter group includes mostly workers whose jobs ended and who immediately began looking for work. Workers involved in a plant closing would be tabulated as job losers. Workers on layoff are also included among job losers, but they are excluded from this analysis because our main interest is workers who have permanently lost their jobs. The percentage of total unemployment that was accounted for by job losers was similar in both countries, and rising in the 1980's. Permanent job loss accounted for around a third of total unemployment in 1986 in both countries.[12]

It is also useful and straightforward to compare long-term unemployment, defined here as being jobless for 1 year or longer. Although Japan's unemployment rate is less than half the United States rate, long-term unemployment as a percent of total unemployment was about twice as high in Japan than in the United States in 1986. Apparently, once a worker becomes unemployed, it is more difficult for him or her to become re-employed in Japan than it is for a worker in the United States.

Demographic limitations on flexibility

The characteristics of workers are important in understanding overall labor market flexibility. Also, the analysis of significant past and future employment and population trends will help explain unemployment differences between the United States and Japan and give some idea of the ability of each labor force to adjust to structural change.

The labor force participation rate was roughly the same in each country in 1986. This masks important age-sex differences. (See table 8.) For example, the rate for teenagers (defined as age 15 and over for Japan and age 16 and over for the United States) is very low in Japan, 18 percent, compared with 55 percent for U.S. teenagers. Japanese teens are less likely to work even part time while in school. This partially explains why teenage unemployment in Japan is low, which also helps to keep overall unemployment low. A rough estimate was that in 1985, the overall U.S. unemployment rate would be about 0.8 percentage point lower if U.S. teenagers had the same unemployment rate and labor force participation rate as teenagers in Japan.[13] In Japan, most would-be workers do not pursue their first job until all formal schooling is completed.

In contrast, a much greater percentage of older workers, mainly men, stay longer in the labor force in Japan than do comparable workers in the U.S. labor force. For example, in 1986, the labor force participation rate for men 55 years of age and over in Japan was 61 percent, versus 37 percent for their U.S. counterparts.

These magnitudes and patterns of labor force participation are important in gauging the flexibility of the labor force. This is easily seen by examining trends in fertility rates and population structure.

All industrialized countries have experienced declining fertility rates since the mid-1960's. As a result, their populations are aging. The decline in fertility rates started sooner in Japan, falling almost continuously since the late 1940's. Thus, the aging of the work force is occurring more rapidly. This shift may have some effect on the general productivity of the work force, although it is not entirely clear to what extent the experience and skills of older workers may offset the greater flexibility, mobility, and energy of younger workers.

Moreover, by the year 2000, the percentage of the population in Japan age 65 years and older will pass the U.S. percentage, and the gap will widen into the next century.[14] Given the high proclivity of Japan's older workers to stay in the labor force, the aging population structure is perhaps their number one problem in maintaining a flexible labor force and in keeping unemployment low. Also, these trends may lead to mismatches between jobs and worker skills. When there are a large number of older workers remaining in the labor force whose skills may become obsolete and there is a low participation rate among younger workers, it is not surprising, especially given Japan's low unemployment rate, for skill mismatches to occur.

In time, an aging work force will be a problem for all industrialized countries. However, in the near future, the declining fertility rates, especially in the United States, will help lower the overall unemployment rate, as a smaller number of younger workers, whose unemployment rate is higher than that for adult workers, will enter the labor force. Unless the skills of workers are continually upgraded, especially among the growing proportion that are older, the United States may soon face significant mismatch problems.

Trends in labor force participation are also important. For example, is labor force participation declining among older workers in Japan? This is indeed the case, which will soften the impact of Japan's aging population structure.

Table 6. Nonagricultural U.S. employment by industry, selected years, annual averages
[In thousands]

Industry	1973	1979	1982	1986	1987
Total	76,790.0	89,823.0	89,566.0	99,525.0	102,310.0
Mining	642.0	958.0	1,128.0	777.0	721.0
Construction	4,097.0	4,463.0	3,905.0	4,816.0	4,998.0
Manufacturing	20,154.0	21,040.0	18,781.0	18,965.0	19,065.0
Durable goods	11,891.0	12,760.0	11,039.0	11,230.0	11,218.0
Lumber and wood products	759.2	766.9	597.5	710.3	739.6
Furniture and fixtures	506.8	497.8	432.0	498.2	518.2
Stone, clay, and glass products	715.7	708.7	576.9	585.1	582.2
Primary metal industries	1,259.1	1,253.9	921.9	751.7	749.4
Fabricated metal products	1,651.1	1,717.7	1,426.9	1,423.3	1,407.4
Machinery, except electrical	2,089.0	2,484.8	2,243.9	2,052.8	2,023.4
Electrical and electronic equipment	1,969.5	2,116.9	2,008.0	2,116.3	2,084.1
Transportation equipment	1,929.3	2,077.2	1,734.7	2,025.1	2,048.2
Instruments and related products	557.3	691.2	715.5	706.2	693.3
Miscellaneous manufacturing	454.4	444.8	382.1	361.3	369.6
Nondurable goods	8,262.0	8,280.0	7,741.0	7,734.0	7,847.0
Food and kindred products	1,714.8	1,732.5	1,635.9	1,609.3	1,623.9
Tobacco manufactures	77.5	70.0	68.7	58.6	54.3
Textile mill products	1,009.8	885.1	749.4	703.2	724.5
Apparel and other textile products	1,438.1	1,304.3	1,161.1	1,100.8	1,099.9
Paper and allied products	704.6	706.8	662.4	673.7	679.0
Printing and publishing	1,110.7	1,235.1	1,272.1	1,458.5	1,507.2
Chemicals and allied products	1,037.6	1,109.3	1,075.1	1,021.8	1,025.6
Petroleum and coal products	192.9	209.8	200.8	168.8	165.3
Rubber and miscellaneous plastics products	692.2	781.6	696.9	790.3	823.1
Leather and leather products	284.0	245.7	218.9	149.1	143.7
Transportation and public utilities	4,656.0	5,136.0	5,082.0	5,255.0	5,385.0
Wholesale and retail trade	16,607.0	20,192.0	20,457.0	23,683.0	24,381.0
Finance, insurance, and real estate	4,046.0	4,975.0	5,341.0	6,283.0	6,549.0
Services	12,857.0	17,112.0	19,036.0	23,053.0	24,196.0
Government	13,732.0	15,947.0	15,837.0	16,693.0	17,015.0

SOURCE: Compiled from the official statistics of the U.S. Department of Labor.

Table 7. Severity of joblessness in the United States and Japan, 1979 and 1986
[In percent]

Characteristic	U.S.	Japan
Unemployment rate[1]		
1979	5.8	2.1
1986	7.0	2.8
Percent of total unemployment		
Long term unemployment:[2]		
1979	4.2	17.0 (March)
1986	8.7	17.1 (February)
Job loser unemployment:[3]		
1979	29	30 (March)
1986	36	32 (February)
U-7 unemployment rate[4]		
1980	10.1	[5]7.0–8.7 (March)
1986	10.3	[5]8.9–11.8 (February)

[1] Approximating U.S. concepts.

[2] Unemployed 1 year or longer.

[3] For the United States, the reason for unemployment was permanent job loss; for Japan, the reason for unemployment was involuntary job loss.

[4] U-7 measures seekers of full-time jobs, plus one-half the number of seekers of part-time jobs, plus one-half the number of part-time workers who want full-time work, plus discouraged workers as a percent of the civilian labor force, adjusted to exclude one-half of the part-time labor force and to include the discouraged workers.

[5] This range for Japan reflects two different groups of discouraged workers.

SOURCES: *Statistical Supplement to International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, June 1988); *Employment and Earnings* (Bureau of Labor Statistics, January 1980 and 1987); Constance Sorrentino, "Japanese Unemployment: BLS updates its analysis," *Monthly Labor Review*, June 1987, pp. 47–53; and the special annual March or February household survey in Japan.

Labor force participation rates among older workers are declining in most other industrialized countries as well.

The labor force participation rate of women is still rising in the United States, but it appears to be falling slightly in Japan. (See table 9.) More importantly, the participation rate of women in Japan is more cyclical than that of women in the United States. This phenomenon is unique to Japan among the industrialized countries. Perhaps this gives employers in Japan more flexibility in dealing with business downturns than it gives employers in the United States and in other countries.

Other factors

Although there are many other work force characteristics which affect labor market flexibility, only three will be discussed here: educational level, occupational mobility, and geographical mobility of the work force.

Educational level. Educational attainment is a powerful predictor of the ability to adjust to unemployment, especially for workers suffering a permanent job loss. In the United States, the educational attainment of workers (measured by the number of years of school completed) has been increasing. Workers in the service sector in the United States have always been, on average, more highly educated than manufacturing workers. This is still the case, as the educational level of U.S. workers in both sectors increased during the 1973–86 period. In manufacturing, the percentage of workers without a high school diploma decreased substantially. The same was true for workers in service-producing industries. The following tabulation, based on data from the Bureau of Labor Statistics, shows the percent of U.S. employees in the service-producing and manufacturing sectors, by educational attainment, 1973 and 1986:

Educational attainment	*Service-producing sector*		*Manufacturing*	
	1973	*1986*	*1973*	*1986*
Less than high school	26	14	38	21
High school	39	38	43	45
More than high school	35	48	20	33

Comparable data for Japan are not available. The data that are available yield somewhat conflicting results on how the educational level of Japanese workers compares with that of U.S. workers. For example, the percentage of 17-year-olds attending educational institutions in 1984 was slightly higher in Japan than in the United States. The percentage of young people obtaining credentials for university entrance in 1984 was much higher in Japan (92 percent) than in the United States (73 percent).[15]

In contrast, a World Bank study of primary, secondary, and higher *formal* education showed that twice as many U.S. labor force participants had a higher (post-secondary) education than their Japanese counterparts around the same time period.[16] Moreover, the mean years of schooling for U.S. labor force participants was 12.6 years in 1981, compared with 9.8 years for Japanese labor force participants in 1979.[17] It is significant, however, that education and training outside the ordinary education system was not included. This type of training accounts for a substantial part of the human capital stock embodied in the labor forces of both countries. In fact, the level of education and training provided in firms is widely regarded as a major determinant of Japan's impressive postwar economic performance.[18]

Occupational mobility. Occupational mobility is a difficult concept to measure and to assess. In most countries, occupations have emerged historically, reflecting particular features of industrial development. In this process, relatively few occupations have disappeared entirely, but most have changed substantially in terms of the composition and level of skills required.

In the United States, it is estimated that about 10 percent of the employed change occupations in a given year. The percentage is highest for youth and declines significantly with age.[19] Given the much higher labor force participation rates of teenagers in the United States than in Japan, and the fact that teenagers are the most mobile group (30 to 40 percent change occupations each year),

occupational mobility is probably higher in the United States than in Japan.

Although occupational mobility data for Japan are not available, fairly comparable data on occupational shifts exist. Japan, as well as the United States, is experiencing a dramatic shift in occupational distribution of employment. (See table 10.) In both countries, rapid growth is occurring in professional and technical occupations, which generally require a lot of education and training.

Managerial and sales occupations also have increased in both countries over the 1972–86 period, but more so in the United States. Generally, there was slower growth in occupations that do not require post-secondary education. A few exceptions were the rapid growth in both countries in the service occupations, which generally do not require advanced training or education, and a puzzling increase in Japan in the number of laborers.

Geographic mobility. Geographic mobility is higher in the United States than in Japan. For example, in 1980, 6.2 percent of the U.S. population moved to another county within the same State; in Japan, the comparable rate was 2.6 percent.[20]

Several factors may account for this low mobility rate in Japan. The population and industries are very densely concentrated geographically, with supplier industries usually located near major clients. It is not unusual for workers to move from their primary industry to a supplier industry. There is also a high degree of internal (intrafirm) mobility. As a result, job turnover is lower and job tenure is higher in Japan, compared with the United States. Fewer than one-third of employees in Japan, primarily in large manufacturing firms, are covered by implicit lifetime employment agreements with their firms.[21] Though no formal commitments are made by either the employer or employee, it is understood that employment will be stable with few or no periods of layoff.

Table 8. Percent distribution of labor force status by gender, United States and Japan, 1986

Characteristic	Total, 16 years[1] and over	Percent distribution			
		Total	Men[2]	Women[2]	Teenagers[1]
Population:					
United States	180,587	100.0	43.5	48.5	8.0
Japan	95,870	100.0	43.6	46.6	9.7
Labor force:					
United States	117,834	100.0	52.0	41.2	6.7
Japan	60,200	100.0	58.8	38.5	2.7
Employment:					
United States	109,597	100.0	52.5	41.6	5.9
Japan	58,530	100.0	58.9	38.5	2.6
Unemployment:					
United States	8,237	100.0	45.5	36.8	17.6
Japan	1,670	100.0	55.1	37.7	7.2
Labor force participation rate:					
United States	65.3	—	78.1	55.5	54.7
Japan	62.8	—	84.6	51.8	17.6
Employment-population ratio:					
United States	60.7	—	73.3	52.0	44.6
Japan	61.1	—	82.4	50.4	16.3
Unemployment rate:					
United States	7.0	—	6.1	6.2	18.3
Japan	2.8	—	2.6	2.7	7.3

[1] Includes, for Japan, 15-year-olds. Population, labor force, employment, and unemployment numbers are in millions.

[2] 20 years and older.

NOTE: U.S. data are for the civilian labor force; Japanese data include the National Defense Force.

SOURCE: U.S. data are from the Bureau of Labor Statistics. Data for Japan are from the Japan Statistics Bureau Management and Coordination Agency, *Annual Report on the Labour Force Survey*, 1986.

Speed of adjustment

A variety of evidence suggests that the speed with which firms adjust labor input (number of workers times the average number of hours worked) to fluctuations in production does not differ significantly between the United States and Japan. When production slows, U.S. firms tend to reduce the number of employees more quickly than do Japanese firms; Japanese firms rely more on reducing hours.

A 1980 study by Haruo Shimata, professor of economics at Keio University, examines trends in manufacturing production, employment, and labor input from November 1973 to December 1975 (a recessionary period) for Japan, the United States, the United Kingdom, West Germany, and France.[22] A substantial drop in production occurred in each country following an increase in energy and other raw material prices at the beginning of this period. The depth of employment adjustment relative to the size of the production drop in Japan was comparable to that in Europe, but was much less severe than in the United States. In contrast, labor input (as measured by the ratio of percentage changes in labor input and production) adjustment was greater in the United States than in Japan and Europe.

Shimata presents econometric estimates of adjustment speeds for employment and labor input on a comparable basis for Japan, the United States, and the United Kingdom.[23] The United States adjusted employment levels more quickly than did either Japan or the United Kingdom; whereas the speed with which Japanese firms adjusted labor input was similar to the United States and somewhat faster than in the United Kingdom.

A more detailed 1985 study by Shimata and others analyzes trends in employment and production for seven manufacturing industries in the United States and Japan, using data over a longer period that included two complete business cycles (1968–79).[24] Timing and depth of employment and production changes in U.S. manufacturing industries were very similar. In contrast, there was a marked absence of employment fluctuations in Japanese manufacturing industries.

The study also presents econometric estimates of employment adjustment speeds for 14 U.S. and Japanese manufacturing industries. It found that employment gen-

Table 9. Civilian labor force participation rates by gender, 1960–87

Year	Total		Men		Women	
	United States	Japan	United States	Japan	United States	Japan
1960	59.4	67.9	83.3	84.2	37.7	52.7
1961	59.3	67.8	82.9	84.3	38.1	52.4
1962	58.8	66.9	82.0	83.6	37.9	51.3
1963	58.7	65.7	81.4	82.5	38.3	50.0
1964	58.7	64.8	81.0	81.5	38.7	49.3
1965	58.9	64.4	80.7	81.1	39.3	48.8
1966	59.2	64.6	80.4	81.1	40.3	49.2
1967	59.6	64.8	80.4	81.0	41.1	49.6
1968	59.6	64.9	80.1	81.7	41.6	49.2
1969	60.1	64.6	79.8	81.5	42.7	48.8
1970	60.4	64.5	79.7	81.5	43.3	48.7
1971	60.2	64.2	79.1	81.9	43.4	47.7
1972	60.4	63.8	79.0	81.9	43.9	46.8
1973	60.8	64.0	78.8	81.9	44.7	47.3
1974	61.2	63.0	78.7	81.6	45.7	45.7
1975	61.2	62.4	77.9	81.2	46.3	44.8
1976	61.6	62.4	77.5	81.0	47.3	44.9
1977	62.3	62.5	77.7	80.4	48.4	45.7
1978	63.2	62.8	77.9	80.1	50.0	46.4
1979	63.7	62.7	77.8	79.9	50.9	46.6
1980	63.8	62.6	77.4	79.6	51.5	46.6
1981	63.9	62.6	77.0	79.6	52.1	46.7
1982	64.0	62.7	76.6	79.3	52.6	47.0
1983	64.0	63.1	76.4	79.2	52.9	48.0
1984	64.4	62.7	76.4	78.5	53.6	47.8
1985	64.8	62.3	76.3	77.9	54.5	47.6
1986	65.3	62.1	76.3	77.6	55.3	47.6
1987	65.6	61.9	76.2	77.1	56.0	47.6

NOTE: Data relate to the total labor force approximating U.S. concepts as a percent of the total noninstitutionalized working age population. Working age is defined as 16-year-olds and older in the United States; 15-year-olds and older in Japan. The institutionalized working age population is included in Japan.

SOURCE: *Statistical Supplement to International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, June 1988).

erally adjusts more quickly in U.S. manufacturing industries and that differences between the United States and Japan are smaller when the volume of employment is measured in terms of labor input.[25]

Adjustment mechanisms

Aside from the overall speed of adjustment, U.S. and Japanese firms have traditionally used different methods to cut labor costs in response to decreased demand.[26] In the United States, firms are quick to lay off workers and shut down inefficient plants. Reliance on private financial capital markets leads firms to reallocate productive capital to more productive plants in the United States or to locations outside the country. Workers at the older plants may be displaced and new workers (possibly elsewhere in the United States or overseas) take their places. There has been little sharing of information or communication between management and labor prior to layoffs and plant shutdowns.[27] Collective bargaining agreements between management and unions specify, in detail, the seniority-based rules for layoffs. However, only about a fourth of all U.S. workers are covered by a collective bargaining agreement.

In Japan, there is extensive reallocation of so-called regular workers (mainly those covered by lifetime employment) to different operations within the firm, to subsidiaries, or even to a different firm. Overtime hours are reduced; wages and semiannual bonuses are cut. Workers on the shop floor are regularly consulted and informed regarding the plan for employment reduction; detailed employment adjustment plans usually are formulated after the need for adjustment becomes clear. Layoffs are rarely used. While these features are typical for large Japanese firms in export-oriented industries, it is important to note that employment adjustment often proceeds less smoothly in small and medium Japanese firms.

Also in Japan, extensive training is given to newly hired regular workers on all aspects of the company's organization, product lines, production technology, and the competition. Workers are rotated every 2 or 3 years to gain a variety of skills. Base pay is low, rises more steeply than in the United States, and peaks at about age 45. Raises are based mostly on seniority and tenure, rather than on the specific job performed. All nonmanagerial regular workers in a company are represented by the company union. Management is usually promoted from within the company; first-line shop managers are key points of contact, promoting good communication between management and shop-floor workers. Given the Japanese firm's substantial investment in the worker and the flexibility of labor within the firm, it makes sense to move workers internally rather than resort to layoffs.

In large U.S. manufacturing companies, the firm usually provides little training unrelated to the specific job for which workers are employed. Pay is closely attached to job classification. Promotion is usually achieved by changing jobs rather than on acquisition of a broad range of skills, with tenure either at the company or at a particular job being the basis for selection. Wage and compensation levels are usually set out in long-term contracts. There is very little communication and information sharing between management and unions. These features of U.S. internal labor markets make reallocation of labor within the firm costly and difficult. Given this, it is clear why U.S. companies reduce labor costs by readily using layoffs rather than by intra-firm or inter-firm transfers.

Adjustment policies

The U.S. and Japanese Governments use a variety of employment adjustment policies to assist displaced workers. Most U.S. workers, when unemployed, are also entitled to income maintenance under Federal-State unemployment insurance, which may be augmented by employer-financed supplemental unemployment benefits. The United States has two primary employment adjustment programs to provide job search aid to displaced workers: Trade Adjustment Assistance, and the Economic Dislocation and Worker Adjustment Assistance Act of 1988, which incorporated and substantially amended Title III of the Job Training Partnership Act.

Japan has several different employment adjustment programs that fall essentially into two groups: employment stabilization measures and vocational training. In addition, the Japanese Government has recently instituted a program which provides loans to firms adversely affected by the yen appreciation. This type of program indirectly assists in the employment adjustments for beneficiary firms.[28]

Jobless workers in the United States can receive weekly payments of 35 to 40 percent of previous wages for 26 to 39 weeks and job-search assistance through the State Employment Service. Workers must actively search for work to receive benefits.

U.S. Trade Adjustment Assistance. This program, expanded in the Trade Act of 1974, provides assistance to workers displaced as a result of increases in imports. Such workers are eligible to receive enhanced unemployment compensation and assistance in retraining, job search, and relocation. Expenditures of the program increased dramatically between 1979 and 1980, reaching more than $2 billion, because many laid-off automobile workers were eligible for, and collected, trade adjustment assistance. Amendments in 1981 to the Trade Act reduced the weekly monetary benefits a displaced worker could receive by switching benefits from a national to individual State level. As a result of these and other changes to the trade adjustment assistance program, it is no longer a major source of aid to trade-displaced workers. It now functions mainly as an extended unemployment insurance program. That is, trade adjustment assistance extends the eligibility period for receiving unemployment insurance benefits from 26–39 weeks to 52 weeks for workers displaced as a result of increased imports. However, coverage under the program has recently been extended to include workers in industries that provide essential goods or services to a trade-affected industry and to workers in firms that engage in exploration or drilling for oil or natural gas.

Economic Dislocation and Worker Adjustment Assistance Act of 1988. This new $980 million program is now the major U.S. Federal employment adjustment program. The act replaces and expands the Job training Partnership Act, Title III program. It still provides block grants of funds to States, which in turn decide the type and amount of employment and training assistance to be provided to dislocated workers, regardless of the cause of displacement.

The act improves on the past, fragmented approach to worker readjustment by: establishing closer links with the unemployment insurance system and Trade Adjustment Assistance, responding earlier and more quickly to workers' needs once they are laid off, improving the targeting of funds to areas of greatest need, emphasizing training and reemployment rather than income support, and facili-

Table 10. Employment change by occupation, United States and Japan, 1972–86

Occupation	Percent change, 1972–86
United States	
Total employment	33.4
Executive, administrative, and managerial workers	73.7
Professional workers	57.5
Technicians and related support workers	74.5
Salesworkers	54.6
Administrative support workers, including clerical	35.2
Private household workers	−31.9
Service workers, except private household workers	45.9
Precision production, craft, and repair workers	29.6
Operators, fabricators, and laborers	−1.3
Farming, forestry, and fishing workers	−10.4
Japan	
Total employment	14.2
Professional and technical workers	64.4
Salesworkers	29.5
Managers and officials	21.0
Clerical and related workers	31.8
Service workers	24.8
Craftsmen and production process workers	6.9
Workers in transport and communications	−3.3
Laborers	49.4
Farmers, lumbermen, and fishermen	−34.6

SOURCE: 1972–86 rates of change in the United States were derived from Current Population Survey data. See Ronald E. Kutscher and Constance E. Sorrentino, "Employment and Unemployment Patterns in the U.S. and Europe, 1973–87," *Journal of Labor Research* (George Mason University, Department of Economics, forthcoming). For Japan, data are from Statistics Bureau, Prime Minister's Office, *Annual Report on the Labour Force Survey*, 1979 and 1986. Occupational definitions for the two countries are not directly comparable.

tating labor-management and government-community cooperation in responding to plant closings and layoffs.

Japan's transfer and retraining programs. In Japan, employment measures are aimed at preventing unemployment. The government does provide unemployment benefits in the event of job loss (60 to 80 percent of previous wages for 90 to 300 days, depending upon age and tenure). As mentioned earlier, under Japanese employment practices, it is very difficult for people once displaced to be re-employed. Employment adjustments are mainly done internally through intra- and inter-company transfers or retraining programs, often with government financial assistance. Japanese firms often pay wage subsidies to workers who are moved to other companies for a limited period of time. It is important to note that these comments apply primarily to regular workers. Nonregular employees are usually the first to be let go during an economic downturn, often leaving the labor force entirely.

In sharp contrast to U.S. practice, the government of Japan provides wage and training cost subsidies directly to employers. Government assistance is given under the 1983 Special Measures Law for Employment Security for Workers in Specified Depressed Industries and Areas to those employers forced to reduce the scale of their business activities, who temporarily shift workers to other enterprises, promptly recruit those leaving from structurally depressed industries, or offer training to workers who are obliged to leave their jobs entirely. These measures are largely financed through employers' contributions to the Employment Insurance Scheme; the Government does not provide large amounts of financial aid.

Fast adjustments although methods differ

The role of manufacturing in total output has not declined in either the United States or Japan. Thus, manufacturing continues to play a prominent role in both economies, with the competitive position of the U.S. manufacturing industry recently improving relative to Japan. In both countries, however, manufacturing employment has declined recently and the industry share of total employment has continued to fall.

The ability of labor markets to respond to structural change depends upon many factors such as the characteristics of the work force and available adjustment mechanisms and policies. When we examined labor market flexibility by comparing labor force characteristics, we found that on one hand, a larger proportion of U.S. than of Japanese workers are young and more likely to change occupations and geographic areas than older workers. On the other hand, Japanese women are more likely than U.S. women to exit the labor force in economic downturns.

Overall, the U.S. labor market adjusts as quickly as the Japanese labor market. Not surprisingly, employment adjustment mechanisms in the two countries are quite different. In Japan, layoffs are rare. Workers' broad-based training provided by their employers allows them more access to different jobs in other parts of the same company or to a different company altogether without entering the unemployment pool. Overtime hours, wages, and bonuses are cut. In the United States, employers rely on layoffs to reduce labor costs.

Correspondingly, U.S. and Japanese employment adjustment policies are tailored to their respective labor markets. In the United States, unemployment compensation is available to job losers, which provides income support while awaiting recall or searching for a new job. Training, job search, and relocation assistance is provided to workers whose job loss appears to be permanent and 60 days notice is provided in the case of plant closings and mass layoffs.

In Japan, a variety of programs have been designed to prevent workers from ever becoming unemployed. Government subsidies are paid directly to firms to finance both wages and vocational training of underemployed workers. □

———*FOOTNOTES*———

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[1]Ronald E. Kutscher and Valarie A. Personick, "Deindustrialization and the shift to services," *Monthly Labor Review*, June 1986, pp. 3-13.

[2]U.S. Department of Commerce, Bureau of Economic Analysis database; Japan Economic Planning Agency, *Annual Report on National Accounts*, 1987.

[3]U.S. Congress, Office of Technology Assessment, *Paying the Bill: Manufacturing and America's Trade Deficit*, OTA—ITE—390 (Washington, U.S. Government Printing Office, June 1988).

[4]Arthur Neef and James Thomas, "Trends in manufacturing productivity and labor costs in the U.S. and abroad," *Monthly Labor Review*, December 1987, pp. 25-30.

[5]These data and the figures in table 1 are a count of *workers* in the manufacturing industry derived from the Current Population Survey, a national sample of households. Data from the Current Employment Statistics program, a national survey of business establishments, provide a count of the number of *jobs* in the manufacturing industry. In 1987, there were 19.1 million manufacturing jobs. The larger number in the CPS is due in large part to the contrasting ways of counting workers on unpaid absences. Manufacturing has a relatively large number of unpaid absences and they are counted as employed only in the CPS, not in the establishment survey. See Christopher G. Gellner, "A 25-year look at employment," *Monthly Labor Review*, July 1973, pp. 14-23. Figures in table 6 are based on the establishment survey.

[6]Elizabeth Gibbons and Gerald F. Halpin, "Import price declines in 1986 reflected reduced oil prices," *Monthly Labor Review*, April 1987, pp. 3–17.

[7]*Economic Report of the President* (Washington, U.S. Government Printing Office, 1988).

[8]Gibbons and Halpin, chart 2, p. 5.

[9]Robert Blanchfield and William Marsteller, "Rising export and import prices in 1987 reversed the trend of recent years," *Monthly Labor Review*, June 1988, pp. 3–19.

[10]*Ibid.*, pp. 5–6.

[11]Constance Sorrentino, "Japan's low unemployment: an in-depth analysis," *Monthly Labor Review*, March 1984, pp. 18–27; and Constance Sorrentino, "Japanese unemployment: BLS updates its analysis," *Monthly Labor Review*, June 1987, pp. 47–53.

[12]Organization for Economic Cooperation and Development (OECD), Panel One, Phase II, "Measures to Assist Workers Displaced by Structural Change" (Paris, OECD, March 1988).

[13]Stuart E. Weiner, "Why is Japan's Unemployment Rate So Low and So Stable?" *Economic Review* (Federal Reserve Bank of Kansas City), April 1987, pp. 3–18.

[14]Organization for Economic Cooperation and Development (OECD), "The Social Policy Implications of Aging Populations" (Paris, OECD, forthcoming), table 12.

[15]Organization for Economic Cooperation and Development (OECD), *Structural Adjustment and Economic Performance* (Paris, OECD, 1987), table 1.1.

[16]George Psacharopoulos and Ana Maria Arriagada, "The educational composition of the labour force: an international comparison," *International Labour Review*, September–October 1986, pp. 56–74.

[17]*Ibid.*

[18]*Ibid.*

[19]Organization for Economic Cooperation and Development (OECD), *Flexibility in the Labor Force* (Paris, OECD, 1986), table II–9.

[20]*Ibid.*

[21]Weiner, "Why is Japan's Unemployment Rate So Low?" p. 16.

[22]Haruo Shimada, "The Japanese Employment System," *Japanese Industrial Relations Series*, Series 6 (Tokyo, Japan Institute of Labour, 1980).

[23]*Ibid.*

[24]James A. Orr, Haruo Shimada, and Atsushi Seike, *United States–Japan Comparative Study of Employment Adjustment*, Report to the U.S. Department of Labor and Japan Ministry of Labor, March 1985.

[25]*Ibid.*

[26]This section draws heavily on Orr, Shimada, and Seike, *United States–Japan Comparative Study.*

[27]This may change in the future with the recent passage of the Worker Adjustment and Retraining Notification Act of 1988, which requires firms that employ 100 or more workers to give workers 60 days notice that the plant may close or that a mass layoff will occur.

[28]Organization for Economic Cooperation and Development (OECD), "*Measures to Assist Workers.*"

The importance of basic academic skills

Why are basic skills important? Because those with better basic skills—defined as the ability to read, write, communicate, and compute—do better in school, at work, and in other key areas of their lives. They are more likely to perform well in school, obtain a high school diploma, go on to and complete college, work more hours, earn higher wages, be more productive workers, and avoid bearing children out of wedlock. Conversely, those who are deficient in basic skills are more likely to be school dropouts, teenage parents, jobless, welfare dependent, and involved in crime. Moreover, in an interdependent world economy, the skills of the Nation's work force are becoming an increasingly important determinant of American industry's competitive position, workers' real wages, and our overall standard of living. In short, basic skills bear a distinct relation to the future well-being of workers, families, firms, and the country itself.

—GORDON BERLIN AND ANDREW SUM
Toward A More Perfect Union: Basic Skills, Poor Families, and Our Economic Future
(New York, Ford Foundation, 1988), pp. 1–2.