



## Japan's low unemployment: a BLS update and revision

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Analysis of Japan's special labor force surveys for the years 1989 to 1992 confirms the Bureau of Labor Statistics previous findings that the overall unemployment rate in Japan, as measured by the regular monthly survey, is only slightly changed when adjusted to U.S. concepts of unemployment and is well below the U.S. unemployment rate. Broadening the unemployment concept to account for persons working part time for economic reasons does not reduce the U.S.-Japan differential. However, when the concept is further broadened to include discouraged workers, the unemployment rates converge.

Analyses of Japanese unemployment are facilitated by the results of a special labor force survey conducted each February in Japan. The special surveys investigate in detail the labor force status of Japan's population, providing analysts with a tool for better understanding the results of the regular monthly surveys, and allowing them to calculate broader measures of labor underutilization.

Using data from the special surveys, BLS reported on Japanese unemployment adjusted to U.S. concepts in 1984, 1987, and 1989.<sup>1</sup> This report updates the 1989 analysis to 1992, and also updates to 1992 the broader alternative unemployment measures (U-6 and U-7) for Japan in a nine-country comparison published in March 1993.<sup>2</sup>

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This report also presents some revisions to the previously published data for 1988 and earlier years. These revisions are the result of a change in the way BLS interprets Japanese statistics on working part time for economic reasons, as well as the use of a new method of allocating the labor force according to full-time and part-time workers. The revisions result in lower rates for the U-6 and U-7 measures of labor underutilization. (This revised method was also used in the aforementioned March 1993 *Review* article. An explanation of the revisions is presented in the last section of this report.)

### Adjustment to U.S. concepts

Table 1 shows the adjustments made to data from Japan's special surveys to bring the data closer to U.S. concepts. The U.S. concepts exclude from the labor force some persons counted as unemployed in the Japanese surveys, and include as unemployed some persons reported as not in the labor force. Although individually significant in magnitude, on balance the adjustments cancel one another and the overall adjusted Japanese unemployment rate remains virtually unchanged from the reported rate.

Most of the adjustments are made to data relating to the unemployed. According to the U.S. definition, the unemployed are persons who do not have a job during the survey week, are available for work, and have actively looked for work in the past 4 weeks. Persons waiting to begin a new job are also classified as unemployed if they are available to start work.<sup>3</sup> By contrast, in the Japanese surveys, the unemployed are all persons who respond that they are unemployed, whether or not they have engaged in active job search in the past month; persons waiting to begin a new job are classified as not in the labor force.

Many who respond to the Japanese survey that they are unemployed have

not actively sought work in the past month. Thus, when adjusting the data to U.S. concepts, these "inactive jobseekers" are subtracted from the reported unemployed. The effect of this *subtraction* would be significant if it were not offset by the *addition* to the reported unemployed of two groups classified by the Japanese as not in the labor force who would be counted as unemployed under U.S. concepts: (1) persons who had sought work in the past month and were available for work immediately, but were recorded as not in the labor force because they initially reported their status was housewife, student, or retiree, rather than jobseeker; and (2) persons who were waiting to begin a job within 1 month. However, BLS excludes from the latter group students awaiting jobs after graduation, on the basis that persons waiting to begin new jobs within 30 days must be available to start work during the survey's reference week in order to be classified as unemployed. The Japanese students would not be available to take up their new jobs until after graduation in March.

The adjustments to the labor force for comparability with U.S. concepts are small in relation to the size of the labor force. (See table 1.) The adjustments are discussed in further detail in the previously mentioned studies.

Analysis of the February data over the 1984-92 period indicates that the adjustments to U.S. concepts often result in slightly lower unemployment rates for Japan than figures based on Japanese definitions. Prior to 1984, the special surveys were for the month of March. Analysis of the special surveys for March 1977 through March 1980 resulted in a slightly upward adjustment in Japan's unemployment rate. (The March 1981-83 surveys did not ask the questions needed for this analysis.) However, March is a highly unusual month for the Japanese labor market because it is the

Table 1. **Adjustment of Japanese unemployment and labor force data to approximate U.S. concepts, February 1984-92**

[Numbers in thousands]

Category	1984	1985	1986	1987	1988	1989	1990	1991	1992
Reported unemployed	1,710	1,640	1,640	1,860	1,730	1,510	1,420	1,360	1,370
Less inactive jobseekers	430	370	360	480	460	400	360	340	330
Plus jobseekers not in labor force who intend to start work immediately	130	130	120	120	140	120	80	60	100
Less those not available due to housework or school	10	10	10	10	10	—	10	10	—
Plus persons waiting to begin a new job within 1 month	1,340	1,130	1,300	1,380	1,380	1,450	1,480	1,460	1,500
Less students awaiting jobs after graduation	1,170	960	1,100	1,160	1,160	1,250	1,250	1,270	1,320
Adjusted unemployed	1,570	1,560	1,590	1,710	1,620	1,430	1,360	1,260	1,310
Reported labor force	57,240	57,990	58,400	58,770	59,640	60,560	61,800	62,950	64,340
Less family members working less than 15 hours per week	560	520	500	550	570	540	550	450	440
Less inactive jobseekers	430	370	360	480	460	400	360	340	330
Plus unemployed classified "not in labor force"	290	290	310	330	350	320	300	240	270
Less National Defense Force	240	240	240	240	240	240	240	240	240
Adjusted civilian labor force	56,300	57,150	57,610	57,830	58,720	59,700	60,950	62,160	63,600
Unemployment rates:									
As reported	3.0	2.8	2.8	3.2	2.9	2.5	2.3	2.2	2.1
Adjusted to U.S. concepts	2.8	2.7	2.8	3.0	2.8	2.4	2.2	2.0	2.1

<sup>1</sup> Net sum of jobseekers not in labor force and persons waiting to begin a new job (excluding students).

NOTE: Dashes indicate zero or negligible number.

SOURCE: Calculations by BLS based on Management and Coordination Agency, Japanese Statistics Bureau, *Report on the Special Survey of the Labour Force Survey*, February 1984-1992.

end of the Japanese fiscal year when firms traditionally hire new workers, and also the end of the school year when new graduates enter the labor market. February, while also a month of relatively high unemployment, is somewhat less seasonal than March and thus better represents the Japanese labor market on an annual average basis.

The BLS comparative unemployment rates program regularly compiles unemployment rates adjusted to U.S. concepts for nine foreign countries. (See tables 48 and 49 on pages 132-33 in the "Current Labor Statistics" section.) In view of the analysis of the February and March surveys, BLS accepts the published Japanese unemployment figures as closely comparable to U.S. concepts. Minor adjustments are made only to the Japanese labor force figures to exclude family members working in a family-owned business for less than 15 hours per week. The civilian unemployment rates are also adjusted to exclude the National Defense Force. These small adjustments have no affect whatsoever on the data for the 1989-92 period.

### Comparisons by sex

There are more significant differences between the Japanese reported unemployment rates and the rates adjusted to U.S. concepts when the data are analyzed by sex. Unlike the reported rates which show an almost uniform rate for male and female unemployment, the adjusted rates show that women have a significantly higher unemployment rate than men. (See tables 2 and 3.)

Reasons for the wider male-female differential after adjustments are evident in table 2. Women account for the majority of the unemployed originally classified as not in the labor force, while men account for most of the unemployed not actively seeking work in the month of the survey (inactive jobseekers).

### Expanded concept

Japan's unemployment rates, both as reported and adjusted to U.S. concepts, are well below those of the United States. U.S. civilian unemployment rates of 5.5 for 1990, 6.7 for 1991, and 7.4 percent for 1992 are in contrast with the adjusted

Japanese rates of about 2 percent for February of these years. Some other Western nations—Canada, France, Italy, and the United Kingdom—had rates ranging from 7 percent to 11 percent in these same years. (See aforementioned tables 48 and 49 in "Current Labor Statistics" section.) A strict interpretation of unemployment rates would lead to the conclusion that the Japanese labor market is 3 or 4 times more efficient than most other Western nations. This conclusion is misleading.

Japan's conventional unemployment rate overlooks a substantial part of labor underutilization, namely underemployment (workers on reduced hours for economic reasons) and discouragement (workers who want a job, but are not actively seeking employment because they believe their search would be futile). BLS includes these forms of labor slack in its alternative unemployment rates known as U-1 to U-7.<sup>4</sup>

Table 4 shows expanded unemployment measures for 1984 to 1992 taking into consideration employed persons on part time for economic reasons (U-6) and

discouraged workers (U-7). The expanded rate U-6 is calculated as all unemployed persons seeking full-time jobs plus one-half of unemployed persons seeking part-time jobs plus one-half of all persons working part-time for economic reasons as a percent of the civilian labor force less half of the part-time labor force. The part-time labor force includes persons voluntarily working part time, plus unemployed persons seeking part-time work. The U-7 rate extends the U-6 definition by adding discouraged workers to the numerator and denominator.

Part time for economic reasons includes a variety of situations: persons working reduced hours due to slack work, materials shortages, or plant breakdown; persons who could only find part-time positions; and persons who lost hours because they started or ended a job in the survey week. In Japan, there is an additional category—persons on temporary layoff during the entire survey week, waiting to return to their jobs (listed as “zero hours” in

table 4). These persons are given full weight in the calculation of U-6 for Japan, whereas persons working reduced hours for economic reasons are given only half weight. In the United States, persons on layoff are already counted as unemployed in the conventionally defined unemployment rate (U-5). Thus, all persons working part time for economic reasons in the United States are on reduced rather than “zero hours” and are given half weight in the calculation of U-6.<sup>5</sup>

Because the special surveys do not allow for a precise measurement of discouraged workers, BLS shows the U-7 unemployment rate for Japan as a range. The lower rate of the range (Japan I) includes discouraged workers who seem to fall strictly within the U.S. concept of discouraged workers; the upper rate of the range (Japan II) includes some who might not be counted under the U.S. definition, but who would fall under a broader concept of labor underutilization.<sup>6</sup>

The years 1989–92 show a progressive worsening of U.S. unemployment, as measured by both the conventional rate (U-5) and the expanded rates, whereas the comparably defined Japanese unemployment rates show a steady improvement through 1991 and a slight upturn in 1992. Comparisons of the U-6 and U-7 rates in relation to the conventionally defined U-5 rate continue to show that the Japanese rates are increased by a greater degree than those of the United States as the definition of unemployment broadens to encompass discouraged workers. In other words, there is a convergence in the “unemployment rates” for the two countries from U-5 to U-7. However, at U-6, on average, there is no convergence, and, in recent years, the gap tends to be slightly wider at U-6 than at U-5.

Table 5 shows the ratio of the U.S. unemployment rate to the Japanese unemployment rate under the three definitions, U-5, U-6, and U-7. The previous article reported a general narrowing of

Table 2. **Adjustment of Japanese unemployment and labor force data to approximate U.S. concepts, by sex, February 1989–92**

[Numbers in thousands]

Category	Men				Women			
	1989	1990	1991	1992	1989	1990	1991	1992
Reported unemployed	870	840	830	800	640	590	530	570
Less inactive jobseekers	260	240	240	210	140	120	100	120
Plus jobseekers not in labor force who intended to start work immediately	30	10	10	20	90	70	50	70
Less those not available due to housework or school	-	-	-	-	-	10	-	-
Plus persons waiting to begin new job within 1 month	710	740	760	720	740	750	700	780
Less students awaiting jobs after graduation	640	650	680	670	610	610	590	660
Adjusted unemployed	710	700	680	670	720	670	590	640
Reported labor force	36,480	36,990	37,580	38,390	24,080	24,820	25,360	25,950
Less family members working less than 15 hours per week	50	50	50	50	490	500	410	390
Less inactive jobseekers	260	240	240	210	140	120	100	120
Plus unemployed classified “not in labor force” <sup>1</sup>	100	100	90	80	220	200	160	190
Less National Defense Force	240	240	240	240	0	0	0	0
Adjusted civilian labor force	36,030	36,560	37,140	37,970	23,670	24,400	25,010	25,630
Unemployment rate:								
Reported	2.4	2.3	2.2	2.1	2.7	2.4	2.1	2.2
Adjusted to U.S. concepts	2.0	1.9	1.8	1.8	3.0	2.7	2.4	2.5

<sup>1</sup>Net sum of jobseekers not in labor force and persons waiting to begin a new job (excluding students).

NOTE: Sums of the statistics for men and women may not exactly coincide with the totals in table 1 due to rounding. Dashes indicate zero or negligible number.

SOURCE: Calculations by BLS based on Management and Coordination Agency, Japanese Statistics Bureau, *Report on the Special Survey of the Labour Force Survey, February 1989–92*.

Table 3. Japanese civilian unemployment rates by sex, as published and approximating U.S. concepts, March 1977–80 and February 1984–92

[In percent]

Period	As published		Approximating U.S. concepts	
	Men	Women	Men	Women
March:				
1977 .....	2.4	2.3	2.0	4.3
1978 .....	2.7	2.4	2.2	4.3
1979 .....	2.5	2.4	1.9	4.1
1980 .....	2.2	2.3	1.7	3.3
February:				
1984 .....	3.0	3.0	2.5	3.3
1985 .....	2.9	2.8	2.4	3.1
1986 .....	2.8	2.8	2.4	3.3
1987 .....	3.1	3.3	2.5	3.7
1988 .....	2.9	2.8	2.5	3.2
1989 .....	2.4	2.7	2.0	3.0
1990 .....	2.3	2.4	1.9	2.7
1991 .....	2.2	2.1	1.8	2.4
1992 .....	2.1	2.2	1.8	2.5

the U.S.–Japanese unemployment rate differentials over the 1984–88 period. This trend was reversed in 1989 through 1992. Beginning in 1989, the gap widened: the U.S. conventional definition of unemployment (U–5) was 2.5 to 2.7 times the Japanese rate during 1984–86, narrowed to about 2.0 during the 1987–88 period, and then rose progressively from 2.2 to 3.5 during the 1989–92 period.

When the unemployment definition is broadened to include persons working part time for economic reasons (U–6), the gap between the U.S. rate and the Japanese rate tends to be a bit wider than that at U–5 since 1988, while the gap is about the same at both U–5 and U–6 in the earlier years. This revises previous data which indicated a definite narrowing of the gap between the two countries at U–6 during the 1984–88 period. The previous calculations had overstated the number of persons working part time involuntarily in Japan (as discussed later in this report).

The U.S. U–6 rate declined from about 2.6 times the Japanese rate during the 1984–86 period to about twice the Japanese rate during the 1987–89 period. However, in 1990 and 1991 the differential widened again, as the number of U.S. workers on reduced hours rose significantly while the number of Japanese workers on such short-time hours declined. In 1992, the number of workers

on economic part time rose in both countries, and the U.S.–Japanese ratio for the U–6 rate remained the same as in 1991.

Unlike U–6, the even broader definition of unemployment which encompasses discouraged workers (U–7) narrows the gap considerably between the United States and Japan. (See table 5.) At the lower end of the range for Japan, the U.S. U–7 rate averaged about 1.4 times the Japanese rate over the 1984–92 period. At the high end of the Japanese U–7 range, the U.S. rate was below the Japanese rate from 1986 to 1990, but surpassed the Japanese rate in 1991 and 1992. However, it should be emphasized that Japan's upper U–7 rate includes some persons who might not be classified as discouraged workers under U.S. definitions.

Expanding the unemployment concept to include discouraged workers draws the Japanese rate closer to U.S. levels. Explanations for any remaining differential lie in such factors as the composition of the labor force, levels of frictional unemployment, economic growth rates, and cultural and institutional differences.

#### Revisions to expanded rates

Table 4 presents some downward revisions to the previously published data for U–6 and U–7.<sup>7</sup> Following are the previous and revised data:

	U–6	
	Previous	Revised
1984 .....	4.9	3.8
1985 .....	4.9	3.7
1986 .....	5.0	3.8
1987 .....	5.1	4.0
1988 .....	4.5	3.4

	U–7	
	Previous	Revised
1984 .....	8.1–10.4	6.9–9.2
1985 .....	8.7–11.5	7.5–10.2
1986 .....	8.9–11.8	7.7–10.5
1987 .....	9.1–12.2	7.9–10.9
1988 .....	8.3–11.2	7.1– 9.9

Thus, U–6 as well as the ranges for U–7 are revised downward by 1 percentage point or more during the 1984–88 period. The reasons for the revisions are twofold. First, the earlier analysis misinterpreted a subcategory of the Japanese data on persons working reduced hours. This affects the numerators of both U–6 and U–7, reducing them significantly. Second, estimations of Japan's part-time and full-time labor forces have been adjusted in a manner more consistent with U.S. definitions. This affects the denominators of both U–6 and U–7, also reducing them significantly. The revisions to U–7 are solely the result of the changes in U–6. Thus, there were no revisions to the previously published estimates of discouraged workers.

*Part time for economic reasons.* The Japanese special surveys report on persons working less than 35 hours for the following reasons: (1) normal work time is short; (2) reasons of business or employer; (3) due to own or family condition; (4) bad weather; and (5) other. Category (1) is further broken down into those who wish to work 35 hours or more and those who wish to work less than 35 hours. Category (2) is further broken down into "due to slack in business" and "other." The previous analysis had used the sum of two groups to represent the number of Japanese working part time for economic reasons: (1) those whose normal work time is short and who wanted to work 35 hours or more and (2) those working reduced hours for reasons of business or employer, assuming that persons in the "other" group of this category were working part time involuntarily.

Table 4. Expanded unemployment measures for the United States and Japan, 1984-92

[Numbers in thousands]

Category	United States								
	1984	1985	1986	1987	1988	1989	1990	1991	1992
<b>Unemployed</b>									
Total, U.S. standard definition	8,538	8,312	8,237	7,425	6,701	6,528	6,874	8,424	9,384
Full-time jobseekers	7,057	6,793	6,708	5,979	5,357	5,211	5,541	6,932	7,746
Part-time jobseekers	1,481	1,519	1,529	1,446	1,343	1,317	1,332	1,492	1,638
One-half	741	760	765	723	672	659	666	746	819
Part-time for economic reasons	5,744	5,590	5,588	5,401	5,206	4,894	5,103	6,046	6,385
Reduced hours	5,744	5,590	5,588	5,401	5,206	4,894	5,103	6,046	6,385
One-half	2,872	2,795	2,794	2,701	2,603	2,447	2,552	3,023	3,193
Zero hours <sup>1</sup>	-	-	-	-	-	-	-	-	-
U-6 numerator <sup>2</sup>	10,669	10,348	10,267	9,403	8,632	8,317	8,759	10,701	11,758
Plus discouraged workers	1,283	1,204	1,121	1,026	954	859	855	1,025	1,097
U-7 numerator	11,952	11,552	11,388	10,429	9,586	9,176	9,614	11,726	12,855
<b>Civilian labor force:</b>									
Total, U.S. standard definition	113,544	115,461	117,834	119,865	121,669	123,869	124,787	125,303	126,982
Full-time labor force	97,832	99,178	101,085	102,631	104,017	105,744	106,757	107,360	109,131
Part-time labor force	15,912	16,283	16,750	17,234	17,651	18,126	18,029	17,943	17,851
One-half	7,956	8,142	8,375	8,617	8,826	9,063	9,014	8,972	8,926
U-6 denominator <sup>3</sup>	105,588	107,319	109,459	111,248	112,843	114,806	115,773	116,331	118,056
U-7 denominator <sup>4</sup>	106,871	108,523	110,580	112,274	113,797	115,665	116,628	117,356	119,153
<b>Unemployment rates (percent):</b>									
U-5: U.S. standard definition (civilian basis)	7.5	7.2	7.0	6.2	5.5	5.3	5.5	6.7	7.4
U-6: Total full-time jobseekers plus one-half part-time jobseekers plus one-half total on part-time for economic reasons as a percent of the civilian labor force less one-half of the part-time labor force	10.1	9.6	9.4	8.5	7.6	7.2	7.6	9.2	10.0
U-7: U-6 plus discouraged workers in numerator and denominator	11.2	10.6	10.3	9.3	8.4	7.9	8.2	10.0	10.8
<b>Japan</b>									
<b>Unemployed</b>									
Total, U.S. standard definition	1,570	1,560	1,590	1,710	1,620	1,430	1,360	1,260	1,310
Full-time jobseekers <sup>5</sup>	1,160	1,140	1,180	1,230	1,120	990	920	850	910
Part-time jobseekers <sup>5</sup>	380	400	400	450	470	450	440	410	390
One-half	190	200	200	230	240	230	220	210	200
Part-time for economic reasons	1,350	1,360	1,380	1,460	1,130	1,250	970	870	1,030
Reduced hours <sup>6</sup>	1,230	1,240	1,260	1,360	1,080	1,200	930	830	970
One-half	620	620	630	680	540	600	470	420	490
Zero hours <sup>7</sup>	<sup>8</sup> 120	<sup>8</sup> 120	120	100	50	50	40	40	60
U-6 numerator <sup>2</sup>	2,090	2,080	2,130	2,240	1,950	1,870	1,650	1,520	1,660
Plus discouraged workers:									
Japan: Discouraged workers I <sup>9</sup>	1,830	2,240	2,340	2,410	2,260	2,060	2,000	1,940	1,930
Discouraged workers II <sup>10</sup>	3,250	4,020	4,190	4,380	4,090	3,820	3,600	3,490	3,480
U-7 numerator:									
Japan: I	3,920	4,320	4,470	4,650	4,210	3,930	3,650	3,460	3,590
Japan: II	5,340	6,100	6,320	6,620	6,040	5,690	5,250	5,010	5,140
<b>Civilian labor force:</b>									
Total, U.S. standard definition	56,300	57,150	57,610	57,830	58,720	59,700	60,950	62,160	63,600
Full-time labor force	53,260	54,090	54,390	54,440	55,160	55,310	56,690	57,360	58,380
Part-time labor force	3,020	3,040	3,170	3,350	3,540	4,390	4,260	4,780	5,220
One-half	1,510	1,520	1,590	1,680	1,770	2,200	2,130	2,390	2,610
U-6 denominator <sup>3</sup>	54,790	55,630	56,020	56,150	56,950	57,500	58,820	59,770	60,990
U-7 denominator <sup>4</sup>									
Japan: I	56,620	57,870	58,360	58,560	59,210	59,560	60,820	61,710	62,920
Japan: II	58,040	59,650	60,210	60,530	61,040	61,320	62,420	63,260	64,470

See footnotes at end of table.

Table 4. Continued—Expanded unemployment measures for the United States and Japan, 1984–92

[Numbers in thousands]

Category	Japan								
	1984	1985	1986	1987	1988	1989	1990	1991	1992
Unemployment rates (percent):									
U-5: U.S. standard definition (civilian basis) . . . . .	2.8	2.7	2.8	3.0	2.8	2.4	2.2	2.0	2.1
U-6: Total full-time jobseekers plus one-half part-time jobseekers plus one-half total on part-time for economic reasons <sup>1</sup> as a percent of the civilian labor force less one-half of the part-time labor force . . . . .	3.8	3.7	3.8	4.0	3.4	3.3	2.8	2.5	2.7
U-7: U-6 plus discouraged workers in numerator and denominator:									
Japan: I . . . . .	6.9	7.5	7.7	7.9	7.1	6.6	6.0	5.6	5.7
Japan: II . . . . .	9.2	10.2	10.5	10.9	9.9	9.3	8.4	7.9	8.0

<sup>1</sup> Persons on temporary layoff in the United States are included in the standard definition of unemployment.

<sup>2</sup> All full-time jobseekers plus one-half part-time jobseekers plus one-half on reduced hours for economic reasons plus all on zero hours for economic reasons.

<sup>3</sup> Civilian labor force less one-half the part-time labor force.

<sup>4</sup> U-6 denominator plus discouraged workers.

<sup>5</sup> Breakdown into full-time and part-time jobseekers partially estimated.

<sup>6</sup> Includes reported number of persons usually working part time who want more work plus reported number of persons on reduced (but not zero) hours due to slack work.

<sup>7</sup> Refers to persons on temporary layoff in Japan, who are classified as employed.

<sup>8</sup> Data were not reported in 1984 and 1985—estimated as 7.5 percent of adjusted unemployed based upon February 1986 proportion.

<sup>9</sup> For Japan, all persons not in the labor force who reported that they

desired a job but were not seeking work because there was no prospect of finding it, excluding the following two groups: (1) those who had sought earlier in the month and were immediately available (reclassified by BLS as unemployed under U.S. concepts); and (2) persons who respond "no, or undecided" as to whether they could take up a job now. Discouraged Workers I comes as close as possible to U.S. concepts.

<sup>10</sup> For Japan, this group may include some persons who would not be classified as discouraged under U.S. concepts. It includes the persons in Discouraged workers I plus (1) persons who respond "no, or undecided" as to whether they could take up a job now, and (2) persons reported as unemployed in the Japanese survey, but who were not seeking work in the past month (reclassified by BLS as not in the labor force under U.S. concepts).

<sup>11</sup> Japanese workers on "zero hours" are given full weight.

NOTE: Data are on a civilian labor force basis. Subtotals may not add to totals due to rounding. Data for Japan refer to February of each year.

Table 6 shows the number of Japanese persons working reduced hours by reason. Data are from Japan's special surveys conducted over the 1988–92 period. In 1989, the "other" group under "reasons of business or employer" jumped from 780,000 to more than 2 million persons. In 1990, it returned to a more normal level. The Japanese Statistics Bureau informed BLS that the unusual increase in February 1989 was attributable to the fact that many workers were given mandatory time off by their employers to attend the Emperor's funeral. This was construed as involuntary part-time work in Japan.

In addition, the Japanese Statistics Bureau reported that the "other" group under "reasons of business or employer" mainly is made up of persons working reduced hours due to "company events" such as company holidays, recreational holidays, or company trips of various types. Such circumstances would not be considered as economic part time in the United States.

A much smaller number of persons was classified in this "other" group be-

cause they worked reduced hours due to repairs to plant and equipment or material shortages. Reduced hours because of these reasons would be classified as economic part time in the United States. However, the Japanese Statistics Bureau said that, according to their employment customs, it would be extremely rare for persons to be classified as working reduced hours for reasons of plant repairs or materials shortages. Under such circumstances in Japan, a business would provide its employees with other tasks so that their working time would not be affected.

In view of this new information, BLS omitted the "other" group under "reasons of business or employer" in the Japan-U.S. comparisons of economic part-time work. This was the main reason for the downward revisions in the expanded rates, U-6 and U-7. A further component of the downward revisions was the BLS adjustment in the method used to classify the labor force according to full-time versus part-time workers.

#### Part-time and full-time work forces.

Three main approaches have been used by developed countries in providing data on part-time versus full-time work: classification based on the worker's own perception; a cutoff (generally 30 or 35 hours per week) based on usual working hours; or a comparable cutoff based on actual working hours during the reference week. The Organisation for Economic Co-operation and Development (OECD) has noted that a criterion based on actual hours will generally yield a part-time employment figure higher than one based on usual hours because the actual hours criterion will include persons with temporary reductions in working time as a result of holidays, illness, bad weather, and so forth.<sup>8</sup>

The BLS method used in the previous articles was based on a division of Japanese employment into part-time versus full-time workers according to actual hours worked in the survey week. Those working fewer than 35 hours were designated as part-time workers; those working 35 hours or more were designated as full-time workers. Adjustments were then

Table 5. **Ratio of U.S. unemployment rates to Japanese unemployment rates, 1984-1992**

Year	U-5	U-6	U-7
1984	2.7	2.7	1.2-1.6
1985	2.7	2.5	1.0-1.4
1986	2.5	2.5	1.0-1.3
1987	2.1	2.1	.9-1.2
1988	2.0	2.2	.9-1.2
1989	2.2	2.2	.8-1.2
1990	2.5	2.7	1.0-1.4
1991	3.4	3.7	1.3-1.8
1992	3.5	3.7	1.4-1.9
Average, 1984-92	2.6	2.7	1.1-1.4

NOTE: U-5 = conventional measure; U-6 = rate encompassing persons working part time for economic reasons; U-7 = U-6 plus discouraged workers.

made to bring the Japanese civilian labor force into accord with U.S. concepts.

In the new method, usual working status is taken into account. This entails adjustments made in the following manner: Those classified as working 1 to 34 hours whose normal work time is 35 hours or more, but were on reduced hours for the reasons listed in table 6 are reclassified into the full-time labor force. Also, those whose normal work time is less than 35 hours, but who would prefer to work full time are added to the full-time labor force in keeping with the U.S. definition that classifies all persons working part time for economic reasons in the full-time labor force even if they usually work part time.

In February 1989, 13,610,000 persons in Japan worked 1 to 34 hours in the survey week, but only 5,250,000 worked short hours because their normal work time was short. Of these, 4,390,000 wished to work only part time and 860,000 wished to work more hours. (See table 6.) The remaining 8,360,000 who worked less than 35 hours are assumed to be of usual full-time status, but worked reduced hours during the survey week for one of the other reasons listed in the table, such as bad weather. These persons are classified as part of the full-time labor force according to U.S. concepts. In the previous calculations, they had been classified in the part-time labor force, with two exceptions: All those who responded "due to slack in business" (340,000) or "other reasons of business or employer" (2,180,000) had been moved into the full-time labor force on the assumption that they were all involuntarily working part time.

In the previous calculations, persons with a job but not at work (1,380,000 in 1989) had been allocated to the full-time and part-time labor forces according to the proportions of those "at work" by their actual hours worked. In the new calculations, they are allocated according to usual status.

The changes made to allocate employment according to usual hours worked as opposed to the actual hours worked result in the following significant differences in the estimated 1989 civilian labor force as divided into full time versus part time (data in thousands):

	<i>Previous method (actual status)</i>	<i>New method (usual status)</i>
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Total labor force	59,700	59,700
Full time	49,260	55,310
Part time	10,440	4,390

The new method results in a much lower estimate of the part-time labor force and a much higher estimate of the full-time labor force. This method is more consistent over time and corresponds much better to the U.S. method. Differences in the allocation of the labor force under the new, versus old, method were not as large for the years other than 1989 because only the data for this latter year were affected by the Emperor's funeral.

Increased denominators of the U-6 and U-7 rates result from the new allocation of the full-time and part-time labor forces. The elimination of the "reasons of business or employer—other" group from the category of part time for economic reasons decreases the numerators of the U-6 and U-7 rates. Together these changes account for the downward revisions in the expanded unemployment rates. □

**Footnotes**

<sup>1</sup> In the *Monthly Labor Review*, see Constance Sorrentino, "Japan's low unemployment: an in-depth analysis," March 1984, pp. 18-27; "Japanese unemployment: BLS updates its analysis," June 1987, pp. 47-53; and "Adjusted Japanese

Table 6. **Japanese persons working reduced hours by reason, February 1988-92**

[In thousands]

Year	Total working reduced hours	At work 1 to 34 hours during survey week								
		Normal work is short			Normal work time is 35 or more hours					
		Total	Wish to work 35 hours or more	Wish to work less than 35 hours	Total	Due to slack business	Other reasons of business or employer	Due to own or family condition	Bad weather	Other or unknown
1988	9,290	4,280	700	3,570	5,010	380	780	2,040	490	1,310
1989	13,610	5,250	860	4,390	8,360	340	2,180	2,230	830	2,790
1990	10,170	4,990	690	4,310	5,180	240	830	2,040	750	1,320
1991	10,650	5,330	580	4,740	5,320	250	940	2,210	560	1,350
1992	11,340	5,810	620	5,190	5,530	350	950	2,560	270	1,400

NOTE: Subtotals may not add to totals due to rounding.

SOURCE: Report on the Special Survey of the Labour Force Survey, February 1988-92, table 5.

unemployment rate remains below 3 percent in 1987-88," June 1989, pp. 36-38.

<sup>2</sup> See Constance Sorrentino, "International comparisons of unemployment indicators," *Monthly Labor Review*, March 1993, pp. 3-24.

<sup>3</sup> Persons on layoff who are waiting to be called back to their jobs are also classified as unemployed in the United States. In European countries and Japan, however, they are classified as employed. In the BLS international unemployment comparisons program, no adjustments are made for this difference. BLS does not strictly apply the U.S. definition in this case because European and Japanese layoff practices are quite different from those in the United States. For further information, see Joyanna Moy and Constance Sorrentino, "Unemployment, labor force trends, and layoff practices in 10 countries," *Monthly Labor Review*, December 1991, pp. 3-13, especially pp. 8-11.

<sup>4</sup> The U-1 to U-7 range of unemployment measures is included in the Bureau's monthly news release, *The Employment Situation*. These measures were introduced in Julius Shiskin, "Employment and unemployment; the doughnut or the hole?" *Monthly Labor Review*, February 1976, pp. 3-10.

<sup>5</sup> For further explanation of this point, see Moy and Sorrentino, "Unemployment, labor force trends, and layoff practices."

<sup>6</sup> For further explanation of discouraged workers data, see Sorrentino, "International comparisons," pp. 15-17; and the appendix in "Japanese unemployment: BLS updates its analysis."

<sup>7</sup> Sorrentino, "Adjusted Japanese unemployment rate."

<sup>8</sup> "Sources and definitions for data on part-time work," *OECD Employment Outlook*, Annex 1.C, July 1990, p. 41.

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