Evaluating the 1995 labor force projections

More accurate projections of population, shorter projection periods, and reduced labor force growth made BLS labor force projections to 1995 marginally better than those to 1990

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For the 1984–95 period, the Bureau of Labor Statistics correctly identified the most significant labor force trends. In terms of the direction of change in labor force participation rates, the most significant errors were in the cases of very young workers and older workers. These errors, however, had a small impact on the projection error for the total labor force because of the relatively small number of workers in the two age groups.

Levels

The projection of the total civilian labor force, 129.2 million, was 3.1 million lower than the actual 1995 labor force of 132.3 million, an error of 2.8 percent.[1] (See table 1.) The Bureau correctly projected the slowing rate of labor force growth for the 1984–95 period, compared with the previous 11 years. The 27-percent increase from 1973 to 1984 was projected to slow to 13.8 percent from 1984 to 1995, but the actual slowing was somewhat less, as the actual growth was 16.5 percent. That the projected rate of growth was lower than the actual rate reflects offsetting errors in the population projections prepared by the Bureau of the Census and the labor force participation rates for specific age, sex, and racial groups that were prepared by the BLS.

The labor force for both men and women was projected too low, with two-thirds of the error accounted for by men. White men over the age of 60 were underprojected by more than 1 million, or nearly half of the 2.1 million error for men, although they accounted for less than 6 percent of the labor force in 1995. Black and other men were underprojected at every age group, except for those 45 to 49 years. Young men from 20 to 24 also were underprojected, by 549,000, roughly 26 percent of the error; they were only 10.3 percent of the labor force in 1995. The projections for black and other women were highly accurate, except for those older than 70 and those under 24 years of age. White women older than 45 were significantly underprojected, in contrast to white women 20 to 39 years, who were overprojected.

The projection error was 1.9 percent for whites and 8.4 percent for blacks and others. The latter group was underprojected by 1.3 million, roughly 40 percent of the total error, although it accounted for only 15 percent of the labor force in 1995. For these workers, 22 of the 26 age and sex groups for which projections were developed were underprojected. Population underprojections, probably chiefly of Asians, who make up a large part of the "other" group, are largely responsible for this error. Except for the underprojection of older and younger workers, the individual age and sex group projections for whites were more evenly split between under- and overprojections.

Despite the relatively large projection errors for some groups, the projected distribution of the labor force in 1995 by age, sex, and race was very close to the actual distribution. As might be expected from the foregoing discussion, the projected share for blacks (14.8 percent) was lower than their actual share (15.4 percent), but nevertheless fairly accurate when viewed by separate age and sex groups.

Labor force participation

The Bureau's major input to the 1995 labor force projections was the projection of labor force participation rates for specific age, sex, and racial groups, which rates were then applied to population projections developed by the Bureau of the Census. The accuracy of the overall projection of labor force participation, 66.6 percent, reflects several offsetting errors for age, sex, and racial groups. Definite patterns are revealed by the errors for the age groups 16 to 24 (youth), 25 to 59 (prime-age workers), and 60 and older (older workers) for men and women in each of the two racial groups for which projections were evaluated, namely, "whites" and "blacks and others."

The direction of change was projected correctly for all age, sex, and racial subgroups in the prime-age group, except 25-to-29-year-old white men and 40-to-44-year-old black men. Participation rates for both of these were projected to remain unchanged, and both declined. The rates for all other age subgroups of prime-age men, in both racial groups, were projected to decline, and all did. In almost all of the groups, however, the projected rate of decline was less than what actually occurred. The largest error was the result of greater-than-projected declines in the labor force participation of black and other males 35 to 49 years of age. (See table 2.)

For prime-age women, participation rates for all age subgroups, both for whites and for blacks and others, were correctly projected to increase. For

Table 1. Civilian labor force, 1984 actual and 1995 projected and actual

[Numbers in thousands]

Labor force group	1984	1995		Percent change, 1984–95		Numerical error (projected minus actual)	Percent error	Share of labor force, 1995	
		Projected	Actual	Projected	Actual			Projected	Actual
Total	113,544	129,168	132,304	13.8	16.5	–3,136	–2.8	100.0	100.0
Men, 16 and older	63,835	69,282	71,360	8.5	11.8	–2,078	–3.3	53.6	53.9
Women, 16 and older	49,709	59,886	60,944	20.5	22.6	–1,058	–2.1	46.4	46.1
White	98,492	110,086	111,950	11.8	13.7	–1,864	–1.9	85.2	84.6
Men	56,062	59,894	61,146	6.8	9.1	–1,252	–2.2	46.4	46.2
16 and 17 years	1,420	1,374	1,429	–3.2	.7	–55	–3.9	1.1	1.1
18 and 19 years	2,189	1,904	1,998	–13.0	–8.7	–94	–4.3	1.5	1.5
20 to 24 years	7,370	5,773	6,096	–21.7	–17.3	–323	–4.4	4.5	4.6
25 to 29 years	8,315	7,074	7,224	–14.9	–13.1	–150	–1.8	5.5	5.5
30 to 34 years	7,721	8,390	8,445	8.7	9.4	–55	–.7	6.5	6.4
35 to 39 years	6,842	8,635	8,587	26.2	25.5	48	.7	6.7	6.5
40 to 44 years	5,506	7,880	7,827	43.1	42.2	53	1.0	6.1	5.9
45 to 49 years	4,518	6,920	6,740	53.2	49.2	180	4.0	5.4	5.1
50 to 54 years	4,165	5,163	4,991	24.0	19.8	172	4.1	4.0	3.8
55 to 59 years	3,880	3,605	3,589	–7.1	–7.5	16	.4	2.8	2.7
60 to 64 years	2,530	1,873	2,220	–26.0	–12.3	–347	–13.7	1.5	1.7
65 to 69 years	900	647	1,074	–28.1	19.4	–427	–47.5	.5	.8
70 years and older	705	656	926	–7.0	31.3	–270	–38.3	.5	.7
Women	42,431	50,192	50,804	18.3	19.7	–612	–1.4	38.9	38.4
16 and 17 years	1,300	1,201	1,320	–7.6	1.5	–119	–9.2	.9	1.0
18 and 19 years	2,043	1,668	1,798	–18.4	–12.0	–130	–6.4	1.3	1.4
20 to 24 years	6,363	5,306	5,170	–16.6	–18.7	136	2.1	4.1	3.9
25 to 29 years	6,297	6,136	5,890	–2.6	–6.5	246	3.9	4.8	4.5
30 to 34 years	5,624	7,166	6,766	27.4	20.3	400	7.1	5.5	5.1
35 to 39 years	5,101	7,439	7,024	45.8	37.7	415	8.1	5.8	5.3
40 to 44 years	4,139	6,679	6,674	61.4	61.2	5	.1	5.2	5.0
45 to 49 years	3,302	5,646	5,856	71.0	77.3	–210	–6.4	4.4	4.4
50 to 54 years	2,915	4,024	4,218	38.0	44.7	–194	–6.6	3.1	3.2
55 to 59 years	2,593	2,525	2,908	–2.6	12.2	–383	–14.8	2.0	2.2
60 to 64 years	1,699	1,460	1,714	–14.1	.9	–254	–14.9	1.1	1.3
65 to 69 years	631	563	837	–10.8	32.6	–274	–43.4	.4	.6
70 years and older	423	379	629	–10.4	48.8	–250	–59.2	.3	.5
Black and other	15,082	19,082	20,354	26.5	35.0	–1,272	–8.4	14.8	15.4
Men	7,803	9,388	10,215	20.3	30.9	–827	–10.6	7.3	7.7
16 and 17 years	171	171	239	.0	39.8	–68	–39.8	.1	.2
18 and 19 years	353	301	370	–14.7	4.8	–69	–19.5	.2	.3
20 to 24 years	1,224	1,017	1,243	–16.9	1.5	–226	–18.4	.8	.9
25 to 29 years	1,285	1,265	1,428	–1.6	11.1	–163	–12.7	1.0	1.1
30 to 34 years	1,168	1,518	1,573	30.0	34.6	–55	–4.7	1.2	1.2
35 to 39 years	955	1,468	1,497	53.7	56.8	–29	–3.1	1.1	1.1
40 to 44 years	734	1,249	1,277	70.2	74.0	–28	–3.9	1.0	1.0
45 to 49 years	596	975	932	63.6	56.4	43	7.1	.8	.7
50 to 54 years	497	663	759	33.4	52.6	–96	–19.2	.5	.6
55 to 59 years	386	412	427	6.7	10.6	–15	–3.9	.3	.3
60 to 64 years	253	229	268	–9.5	6.0	–39	–15.5	.2	.2
65 to 69 years	83	71	124	–14.5	49.2	–53	–63.7	.1	.1
70 years and older	98	49	77	–50.0	–21.2	–28	–28.8	.0	.1
Women	7,279	9,694	10,140	33.2	39.3	–446	–6.1	7.5	7.7
16 and 17 years	158	167	237	5.7	49.8	–70	–44.1	.1	.2
18 and 19 years	308	271	374	–12.0	21.4	–103	–33.4	.2	.3
20 to 24 years	1,088	1,010	1,179	–7.2	8.4	–169	–15.6	.8	.9
25 to 29 years	1,198	1,304	1,369	8.8	14.3	–65	–5.5	1.0	1.0
30 to 34 years	1,115	1,562	1,502	40.1	34.7	60	5.4	1.2	1.1
35 to 39 years	932	1,513	1,545	62.3	65.8	–32	–3.4	1.2	1.2
40 to 44 years	724	1,312	1,320	81.2	82.3	–8	–1.1	1.0	1.0
45 to 49 years	558	1,044	997	87.1	78.7	47	8.4	.8	.8
50 to 54 years	455	694	731	52.5	60.6	–37	–8.1	.5	.6
55 to 59 years	382	449	485	17.5	26.8	–36	–9.3	.3	.4
60 to 64 years	237	261	249	10.1	5.0	12	5.1	.2	.2
65 to 69 years	74	75	82	1.4	10.5	–7	–9.2	.1	.1
70 years and older	50	32	70	–36.0	40.8	–38	–76.8	.0	.1

NOTE: Dash indicates data not available.

Table 2. Civilian labor force participation rate, 1984 actual and 1995 projected

[Numbers in thousands]

Labor force group	1984	1995		Percent change, 1984–95		Numerical error (projected minus actual)	Percent error
		Projected	Actual	Projected	Actual		
Total	64.4	66.6	66.6	2.2	2.2	0.0	0.0
Men, 16 and older	76.4	75.3	75.0	–1.1	–1.4	.3	.4
Women, 16 and older	53.6	58.9	58.9	5.3	5.4	.0	–.1
White	64.6	66.8	67.1	2.2	2.4	–.3	–.4
Men	77.1	75.8	75.7	–1.3	–1.4	.1	.1
16 and 17 years	47.0	49.3	47.7	2.3	.7	1.6	3.3
18 and 19 years	70.7	75.6	69.9	4.9	–.9	5.7	8.2
20 to 24 years	86.5	89.5	85.1	3.0	–1.4	4.4	5.2
25 to 29 years	94.8	94.9	93.6	.1	–1.2	1.3	1.4
30 to 34 years	96.0	95.6	94.5	–.4	–1.5	1.1	1.1
35 to 39 years	96.3	95.3	93.7	–1.0	–2.6	1.6	1.7
40 to 44 years	95.7	94.7	93.2	–1.0	–2.6	1.5	1.6
45 to 49 years	94.1	92.7	91.8	–1.4	–2.4	.9	1.0
50 to 54 years	89.9	89.3	87.8	–.6	–2.0	1.5	1.7
55 to 59 years	81.6	78.7	78.6	–2.9	–3.0	.1	.1
60 to 64 years	56.7	46.3	54.3	–10.4	–2.4	–8.0	–14.8
65 to 69 years	24.8	16.8	27.4	–8.0	2.7	–10.6	–38.7
70 years and older	11.5	8.3	11.7	–3.2	.2	–3.4	–29.1
Women	53.3	58.4	59.0	5.1	5.7	–.6	–.9
16 and 17 years	44.8	44.9	46.7	.1	1.8	–1.8	–3.8
18 and 19 years	65.2	64.8	64.5	–.4	–.6	.3	.4
20 to 24 years	72.5	79.0	72.3	6.5	–.1	6.7	9.3
25 to 29 years	70.8	81.7	75.9	10.9	5.1	5.8	7.7
30 to 34 years	68.8	81.4	75.7	12.6	6.9	5.7	7.6
35 to 39 years	69.5	81.2	76.5	11.7	6.9	4.7	6.2
40 to 44 years	69.7	79.3	78.8	9.6	9.1	.5	.6
45 to 49 years	66.1	74.0	78.2	7.9	12.1	–4.2	–5.4
50 to 54 years	59.3	66.7	71.5	7.4	12.2	–4.8	–6.7
55 to 59 years	49.4	51.3	60.0	1.9	10.6	–8.7	–14.5
60 to 64 years	32.9	32.2	38.2	–.7	5.3	–6.0	–15.7
65 to 69 years	14.1	12.1	18.1	–2.0	4.0	–6.0	–33.1
70 years and older	4.4	3.1	5.4	–1.3	1.0	–2.3	–42.4
Black and other	62.8	65.9	64.3	3.1	1.5	1.6	2.5
Men	71.7	71.7	70.7	.0	–1.0	1.0	1.4
16 and 17 years	26.9	27.7	29.9	.8	3.0	–2.2	–7.4
18 and 19 years	55.3	54.5	51.8	–.8	–3.5	2.7	5.2
20 to 24 years	77.2	76.6	74.3	–.6	–2.8	2.3	3.1
25 to 29 years	87.1	84.2	86.9	–2.9	–.1	–2.7	–3.1
30 to 34 years	89.6	87.2	88.2	–2.4	–1.4	–1.0	–1.1
35 to 39 years	90.8	89.5	85.0	–1.3	–5.8	4.5	5.3
40 to 44 years	90.3	90.3	86.8	.0	–3.5	3.5	4.0
45 to 49 years	87.3	87.3	82.5	.0	–4.8	4.8	5.8
50 to 54 years	82.0	81.7	79.6	–.3	–2.4	2.1	2.6
55 to 59 years	68.7	64.4	66.4	–4.3	–2.3	–2.0	–3.0
60 to 64 years	50.0	44.8	47.9	–5.2	–2.1	–3.1	–6.4
65 to 69 years	22.7	16.5	26.0	–6.2	3.3	–9.5	–36.5
70 years and older	15.0	6.0	9.2	–8.9	–5.8	–3.2	–34.7
Women	55.3	61.1	58.9	5.8	3.5	2.2	3.8
16 and 17 years	24.6	27.0	30.1	2.4	5.5	–3.1	–10.4
18 and 19 years	45.8	45.5	50.2	–.3	4.4	–4.7	–9.4
20 to 24 years	60.5	64.5	62.7	4.0	2.2	1.8	2.8
25 to 29 years	68.4	76.5	70.7	8.1	2.3	5.8	8.2
30 to 34 years	70.6	81.5	72.2	10.9	1.6	9.3	12.9
35 to 39 years	74.0	81.9	74.7	7.9	.7	7.2	9.7
40 to 44 years	72.2	80.9	76.2	8.7	4.1	4.7	6.1
45 to 49 years	67.3	78.0	73.5	10.7	6.2	4.5	6.1
50 to 54 years	60.0	69.1	65.5	9.1	5.5	3.6	5.5
55 to 59 years	53.0	54.7	59.1	1.7	6.1	–4.4	–7.4
60 to 64 years	37.4	36.8	34.3	–.6	–3.1	2.5	7.2
65 to 69 years	14.8	11.6	12.3	–3.2	–2.5	–.7	–5.3
70 years and older	5.0	2.2	5.4	–2.8	.4	–3.2	–59.6

NOTE: Dash indicates data not available.

white women, the projections were too high for those aged 25 to 44 and too low for those 45 to 59. For black and other women, the projected rates for all the prime-age groups were too high, except those 55 to 59.

For youths 16 to 17, participation rates for all sex and racial groups were correctly projected to increase. For age groups 18 to 19 and 20 to 24, the projected direction of change was not the same for every sex and racial group, and the actual direction of change was not consistent for each age group. The patterns of labor force change for these groups are very difficult to discern and, consequently, difficult to project. Several large errors for young workers can be seen in table 2 for specific age, sex, and racial groups.

The projections of labor force participation rates for older workers generally had the largest percent errors, in part because the rates for these workers are relatively small, and small percentage-point errors result in a large percent error. It is also apparent that some of the observed error is due to the redesign of the Current Population Survey (CPS) in 1994, which resulted in a greater proportion of older persons being enumerated as labor force participants. Based on trends at the time the projections were developed, participation rates for all age groups over 60 years were projected to decline. In general, the direction of change for those 60 to 64 years of age was correctly projected in all sex and racial groups, except white women. Most of the other age, sex, and racial groups, however, showed increasing participation (see table 2), but some groups may have shown an increase only because of the CPS redesign.

Population

The Bureau of the Census underprojected the civilian noninstitutional population by 4.8 million. (See table 3.) The percent error was large for both black and other men and black and other women. These two groups represented only 7.3 percent

Table 3. Civilian noninstitutional population, 1984 actual and 1995 projected and actual

[Numbers in thousands]

Labor force group	1984	1995		Percent change, 1984–95		Numerical error (projected minus actual)	Percent error	Share of labor force, 1995	
		Projected	Actual	Projected	Actual			Projected	Actual
Total	176,383	193,817	198,584	9.9	12.6	–4,767	–2.7	100.0	100.0
Men, 16 and older	83,605	92,065	95,178	10.1	13.8	–3,113	–3.7	47.5	47.9
Women, 16 and older	92,778	101,752	103,406	9.7	11.5	–1,654	–1.8	52.5	52.1
White	152,347	164,860	166,914	8.2	9.6	–2,054	–1.3	85.1	84.1
Men	72,723	78,975	80,733	8.6	11.0	–1,758	–2.4	40.7	40.7
16 and 17 years	3,019	2,787	2,995	–7.7	–.8	–208	–6.9	1.4	1.5
18 and 19 years	3,094	2,519	2,859	–18.6	–7.6	–340	–11.0	1.3	1.4
20 to 24 years	8,522	6,450	7,163	–24.3	–15.9	–713	–8.4	3.3	3.6
25 to 29 years	8,775	7,454	7,721	–15.1	–12.0	–267	–3.0	3.8	3.9
30 to 34 years	8,041	8,776	8,932	9.1	11.1	–156	–1.9	4.5	4.5
35 to 39 years	7,103	9,061	9,167	27.6	29.1	–106	–1.5	4.7	4.6
40 to 44 years	5,751	8,321	8,400	44.7	46.1	–79	–1.4	4.3	4.2
45 to 49 years	4,800	7,465	7,345	55.5	53.0	120	2.5	3.9	3.7
50 to 54 years	4,635	5,782	5,683	24.7	22.6	99	2.1	3.0	2.9
55 to 59 years	4,756	4,581	4,565	–3.7	–4.0	16	.3	2.4	2.3
60 to 64 years	4,461	4,042	4,087	–9.4	–8.4	–45	–1.0	2.1	2.1
65 to 69 years	3,635	3,853	3,919	6.0	7.8	–66	–1.8	2.0	2.0
70 years and older	6,133	7,884	7,896	28.6	28.7	–12	–.2	4.1	4.0
Women	79,624	85,885	86,181	7.9	8.2	–296	–.4	44.3	43.4
16 and 17 years	2,899	2,675	2,827	–7.7	–2.5	–152	–5.2	1.4	1.4
18 and 19 years	3,135	2,574	2,787	–17.9	–11.1	–213	–6.8	1.3	1.4
20 to 24 years	8,782	6,717	7,150	–23.5	–18.6	–433	–4.9	3.5	3.6
25 to 29 years	8,897	7,511	7,761	–15.6	–12.8	–250	–2.8	3.9	3.9
30 to 34 years	8,176	8,804	8,941	7.7	9.4	–137	–1.7	4.5	4.5
35 to 39 years	7,335	9,161	9,186	24.9	25.2	–25	–.3	4.7	4.6
40 to 44 years	5,936	8,422	8,468	41.9	42.7	–46	–.8	4.3	4.3
45 to 49 years	4,998	7,630	7,489	52.7	49.8	141	2.8	3.9	3.8
50 to 54 years	4,916	6,033	5,901	22.7	20.0	132	2.7	3.1	3.0
55 to 59 years	5,248	4,923	4,845	–6.2	–7.7	78	1.5	2.5	2.4
60 to 64 years	5,164	4,533	4,488	–12.2	–13.1	45	.9	2.3	2.3
65 to 69 years	4,475	4,653	4,631	4.0	3.5	22	.5	2.4	2.3
70 years and older	9,663	12,249	11,707	26.8	21.2	542	5.6	6.3	5.9
Black and other	24,035	28,957	31,670	20.5	31.8	–2,713	–11.3	14.9	15.9
Men	10,882	13,090	14,445	20.3	32.7	–1,355	–12.5	6.8	7.3
16 and 17 years	636	618	799	–2.8	25.7	–181	–28.5	.3	.4
18 and 19 years	638	552	714	–13.5	11.9	–162	–25.4	.3	.4
20 to 24 years	1,586	1,328	1,672	–16.3	5.4	–344	–21.7	.7	.8
25 to 29 years	1,476	1,502	1,643	1.8	11.3	–141	–9.6	.8	.8
30 to 34 years	1,304	1,741	1,783	33.5	36.7	–42	–3.2	.9	.9
35 to 39 years	1,052	1,640	1,761	55.9	67.4	–121	–11.5	.8	.9
40 to 44 years	813	1,383	1,472	70.1	81.0	–89	–10.9	.7	.7
45 to 49 years	683	1,117	1,130	63.5	65.5	–13	–1.9	.6	.6
50 to 54 years	606	812	953	34.0	57.2	–141	–23.3	.4	.5
55 to 59 years	562	640	643	13.9	14.4	–3	–.5	.3	.3
60 to 64 years	506	511	560	1.0	10.7	–49	–9.7	.3	.3
65 to 69 years	365	431	476	18.1	30.5	–45	–12.4	.2	.2
70 years and older	655	815	839	24.4	28.1	–24	–3.6	.4	.4
Women	13,153	15,867	17,225	20.6	31.0	–1,358	–10.3	8.2	8.7
16 and 17 years	642	618	786	–3.7	22.4	–168	–26.2	.3	.4
18 and 19 years	672	596	744	–11.3	10.7	–148	–22.0	.3	.4
20 to 24 years	1,798	1,566	1,880	–12.9	4.6	–314	–17.5	.8	.9
25 to 29 years	1,751	1,704	1,937	–2.7	10.6	–233	–13.3	.9	1.0
30 to 34 years	1,579	1,916	2,080	21.3	31.8	–164	–10.4	1.0	1.0
35 to 39 years	1,259	1,847	2,069	46.7	64.3	–222	–17.6	1.0	1.0
40 to 44 years	1,003	1,622	1,731	61.7	72.6	–109	–10.9	.8	.9
45 to 49 years	829	1,339	1,356	61.5	63.6	–17	–2.1	.7	.7
50 to 54 years	758	1,005	1,116	32.6	47.2	–111	–14.6	.5	.6
55 to 59 years	721	821	820	13.9	13.8	1	.1	.4	.4
60 to 64 years	634	709	725	11.8	14.4	–16	–2.6	.4	.4
65 to 69 years	501	646	667	28.9	33.2	–21	–4.3	.3	.3
70 years and older	1,006	1,478	1,313	46.9	30.5	165	16.4	.8	.7

and 8.7 percent, respectively, of the population in 1995, but each accounted for more than 28 percent of the projection error. Their population was underprojected largely because of assumptions about undocumented immigrants. The Bureau of the Census has revised its methodology for projecting the population of undocumented immigrants since it issued projections for the 1984–95 labor force, and, as a result, the magnitude of the error for this difficult-to-project group has been significantly reduced.

The population projection error actually offset errors in labor force participation projections. If the projected 1995 labor force participation rates for each age, sex, and racial group were applied to the actual 1995 population, the result would have increased the labor force by 6.9 million, and the projection would have been 3.8 million too high. Although some of the age, sex, and racial group labor force participation rates were projected too low, and some of the population groups too high, the net effect was that labor force participation rate projections were too high and population projections too low, just about offsetting each other. □

Footnote

[1] This section focuses on the 1995 projections as part of the Bureau's series of 1984–95 projections. In the previous series of projections, covering the 1982–95 period, the projected labor force of 131.4 million was more accurate, with the error being 900,000, or 0.7 percent. For a review of all six BLS labor force projections to 1995, see Howard N Fullerton, "Evaluating the 1995 BLS Labor Force Projections," *1997 Proceedings of the Section on Government Statistics* ((Alexandria, VA, American Statistical Association, forthcoming).

Evaluating the 1995 industry employment projections

The 1995 BLS projections of industry employment foretold the trend of almost all major industry groupings, as the economy hewed closely to the path projected for it

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BLS industry employment projections correctly described most broad industry trends over the 1984–95 period. Most of the major industry sectors projected to have faster-than-average growth did so, and 2 of the 3 major sectors projected to decline did lose employment from 1984 to 1995. Services and retail trade were projected to account for 65 percent of the net change in employment, which was very close to the actual 72 percent they attained. Downsizing, which has resulted in the contracting out of many operations, especially in manufacturing industries, is one of many factors that have led to a growth in services faster than that projected.

Major industry sectors

Total wage and salary employment was underprojected by 6.6 million, reflecting chiefly the 3.1 million underprojection of the labor force, but also the unforeseen faster growth of wage and salary employment, compared with that of the labor force. The faster growth stemmed from an unexpected increase in dual jobholders over the projection period. Despite the large numerical underprojection of total employment, the projected 1995 distribution of employment by major industrial sector closely matched the actual distribution. Indeed, the shares of total employment for all but two sectors, agriculture and wholesale trade, were projected to change in the correct direction. Agriculture's share was projected to decline, but it maintained its small 1.7 percent of employment. This was because, although agricultural *production* declined as projected, a rapid growth in agricultural *services*, stemming largely from lawn care services, offset that decline. Wholesale trade's share was projected to increase from 5.7 percent to 5.9 percent, but it actually dropped to 5.3 percent. Wholesale trade was the only sector whose employment growth rate was incorrectly projected to be faster than total employment. The industry grew more slowly than projected because manufacturing, an intensive user of wholesale trade distribution services, grew more slowly than projected. (See table 1.)

Manufacturing's share of employment was correctly projected to decline; however, instead of dropping from 20 percent to 18.4 percent, it fell even lower, to 15.5 percent. These projections were prepared in 1984, just as the economy was emerging from the deeper of two recessions in the 1980s, and it was assumed that manufacturing would recover from its losses, as in the past, but not reach its 1979 peak. But this did not occur. The overprojection was concentrated in defense-related industries in durable goods manufacturing. Nondu-