

### Employment outlook: 2000–10

# Industry output and employment projections to 2010

*U.S. employment to 2010 is expected to rise, although not as quickly as in the 1990s; nonfarm wage and salary workers should account for most of the new jobs*

Jay M. Berman

Employment in the United States is projected to increase by 22.2 million over the 2000–10 period. Even though the growth (1.4 percent) is slightly slower than that experienced during the past decade, employment in the economy is expected to reach 167.8 million. Nonfarm wage and salary workers are expected to account for most of the projected employment gains, 152.5 million. Agricultural employment—including wage and salary workers, self-employed persons, and unpaid family workers—is projected to increase by 323,000. Nonfarm self-employed and unpaid family workers are also expected to increase—to 9.1 million—while private household wage and salary jobs are projected to decline by 226,000. (See table 1.)

Real output among industries is expected to expand by nearly \$6.1 trillion between 2000 and 2010, to \$22.3 trillion from \$16.2 trillion.<sup>1</sup> The resulting average annual growth rate of 3.3 percent closely mirrors that experienced during the 1990–2000 period. Nearly 60 percent of total output growth will be attributed to the service-producing industries, where real output is expected to expand at about the same rate experienced during the past decade—3.4 percent—and reach \$13.1 trillion by 2010. Real output growth in the goods-producing sector is projected to increase 3 percent annually, slightly slower than that of the 1990–2000 period. Although comprising just 1.8 percent of the economy's total output, agriculture output is expected to grow at 1.9 percent

annually, slightly lower than its previous 10-year growth rate. (See table 2.)

The aggregate picture of the economy for the year 2010 has labor force and gross domestic product growth remaining constant, while rising productivity rates continue to lead the way for output increases. Macroeconomic factors providing the foundation for the industry and output projections include the labor force and demographic changes, Government defense spending and tax policies, foreign economic activity, business investment decisions, personal consumption patterns, and aggregate productivity trends.<sup>2</sup>

Most recent BLS projections of the economy has the labor force growing at an annual rate of 1.1 percent, which echoes that experienced during the 1990–2000 period. Growth of the nonfarm labor productivity index is projected to average 2.8 percent per year from 2000 through 2010, a significant increase from the 2.0-percent rate observed over the previous 10 years. Annual GDP growth is expected to mirror the 3.3-percent rate experienced during the previous 1990–2000 period. Within GDP, business investment is set to continue to outpace household consumption as companies continue to take advantage of technological advances to enhance productivity. Foreign trade, however, is expected to accelerate the fastest as the trade deficit on average by 8 percent annually throughout the projected period, thereby depressing the dollar exchange rate.

Jay M. Berman is an economist in the Office of Occupational Statistics and Employment Projections, Bureau of Labor Statistics.  
e-mail: berman\_j@bls.gov

**Table 1. Employment by major industry division, 1990, 2000, and projected 2010**

Industry	Thousands of jobs			Change		Percent distribution			Average annual rate of change	
	1990	2000	2010	1990-2000	2000-10	1990	2000	2010	1990-2000	2000-10
Total <sup>1</sup> .....	124,324	145,594	167,754	21,269	22,160	98.2	98.8	99.0	1.6	1.4
Nonfarm wage and salary <sup>2</sup> .....	108,760	130,639	152,447	21,879	21,807	87.5	89.7	90.9	1.8	1.6
Goods producing .....	24,906	25,709	27,057	803	1,347	20.0	17.7	16.1	0.3	0.5
Mining .....	709	543	488	-167	-55	0.6	0.4	0.3	-2.6	-1.1
Construction .....	5,120	6,698	7,522	1,578	825	4.1	4.6	4.5	2.7	1.2
Manufacturing .....	19,077	18,469	19,047	-607	577	15.3	12.7	11.4	-3	0.3
Durable .....	11,109	11,138	11,780	29	642	8.9	7.7	7.0	0.0	0.6
Nondurable .....	7,968	7,331	7,267	-637	-64	6.4	5.0	4.3	-8	-1
Service producing .....	83,854	104,930	125,390	21,076	20,461	67.4	72.1	74.7	2.3	1.8
Transportation, communications, utilities .....	5,776	7,019	8,274	1,243	1,255	4.6	4.8	4.9	2.0	1.7
Wholesale trade .....	6,173	7,024	7,800	851	776	5.0	4.8	4.6	1.3	1.1
Retail trade .....	19,601	23,307	26,400	3,706	3,093	15.8	16.0	15.7	1.7	1.3
Finance, insurance, and real estate .....	6,709	7,560	8,247	851	687	5.4	5.2	4.9	1.2	.9
Services .....	27,291	39,340	52,233	12,049	12,893	22.0	27.0	31.1	3.7	2.9
Government .....	18,304	20,680	22,436	2,376	1,757	14.7	14.2	13.4	1.2	.8
Federal Government .....	3,085	2,777	2,622	-308	-154	2.5	1.9	1.6	-1.0	-6
State and local government .....	15,219	17,903	19,814	2,684	1,911	12.2	12.3	11.8	1.6	1.0
Agriculture <sup>3</sup> .....	3,340	3,526	3,849	186	323	2.7	2.4	2.3	.5	.9
Private household wage and salary .....	1,014	890	664	-124	-226	.8	.6	.4	-1.3	-2.9
Nonagriculture self-employed and unpaid family workers <sup>4</sup> .....	8,921	8,731	9,062	-190	331	7.2	6.0	5.4	-2	.4
Secondary wage and salary jobs in agriculture (except agricultural services); forestry, fishing, and trapping; and private households <sup>5</sup> ..	205	155	150	-50	-5	.2	.1	.1	-2.8	-3
Secondary jobs as a self-employed or unpaid family worker <sup>6</sup> .....	2,084	1,652	1,582	-432	-70	1.7	1.1	.9	-2.3	-4

<sup>1</sup> Employment data for wage and salary workers are from the BLS Current Employment Statistics (payroll) survey, which counts jobs, whereas self-employed, unpaid family workers, agricultural, and private household data are from the Current Population Survey (household survey), which counts workers.

<sup>2</sup> Excludes SIC 074,5, 8 (agricultural services and 99 nonclassifiable establishments), and is therefore not directly comparable with the data published in the Bureau of Labor Statistics monthly periodical, *Employment and Earnings*.

<sup>3</sup> Excludes government wage and salary workers, and includes private sector for SIC 08, 09 (forestry, fishing, hunting, and trapping).

<sup>4</sup> Excludes SIC 08,09 (forestry, fishing, hunting, and trapping).

<sup>5</sup> Workers who hold a secondary wage and salary job in agriculture (except agricultural services); forestry, fishing, hunting and trapping; and private households.

<sup>6</sup> Wage and salary workers who hold a secondary job as a self-employed or unpaid family worker.

Continuing the 1990–2000 historical trend, virtually all nonfarm wage and salary employment growth will be generated by service-producing sector.<sup>3</sup> Even though the goods-producing sector will continue to add jobs, its relatively slow 0.5 percent annual growth is dwarfed by the expected 1.8-percent pace and 20.5 million jobs created by the service sector.

The service industry division represents the strongest growth within the service-producing sector, both in terms of absolute and percentage change. Generating 12.9 million jobs

at an average annual rate of 2.9 percent, this industry overshadows the 3.1 million jobs expected to be created by the retail trade industry, the next largest source of employment growth. Together, these two industry divisions make up about 73 percent of the total increase in nonfarm wage and salary employment between 2000 and 2010. Buoyed by a projected increase of approximately 2 million jobs at the State and local level, government employment is expected to rise to 22.4 million. Federal Government employment, only about 17 percent

**Table 2. Output by major industry division (gross duplicated output), 1990, 2000, and projected 2010**

Industry	Billions of chained 1996 dollars			Percent distribution			Average annual rate of change	
	1990	2000	2010	1990	2000	2010	1990-2000	2000-10
Total .....	11,472.2	16,180.2	22,286.1	100.0	100.0	100.0	3.5	3.3
Goods producing .....	3,947.5	5,724.4	7,681.0	34.4	35.4	34.5	3.8	3.0
Mining .....	205.4	212.1	229.9	1.8	1.3	1.0	.3	0.8
Construction .....	730.0	910.1	1,182.1	6.4	5.6	5.3	2.2	2.6
Manufacturing .....	3,022.0	4,601.4	6,278.6	26.3	28.4	28.2	4.3	3.2
Durable .....	1,480.8	2,785.2	4,136.4	12.9	17.2	18.6	6.5	4.0
Nondurable .....	1,553.0	1,834.5	2,219.7	13.5	11.3	10.0	1.7	1.9
Service producing .....	6,732.3	9,421.9	13,079.1	58.7	58.2	58.7	3.4	3.3
Transportation, communications, utilities ..	931.1	1,278.0	1,961.9	8.1	7.9	8.8	3.2	4.4
Wholesale trade .....	607.7	920.4	1,409.6	5.3	5.7	6.3	4.2	4.4
Retail trade .....	896.8	1,222.4	1,627.9	7.8	7.6	7.3	3.1	2.9
Finance, insurance, and real estate .....	1,198.1	1,806.4	2,429.1	10.4	11.2	10.9	4.2	3.0
Services .....	2,056.7	3,031.5	4,377.9	17.9	18.7	19.6	4.0	3.7
Government .....	1,043.4	1,161.6	1,287.5	9.1	7.2	5.8	1.1	1.0
Federal Government .....	388.9	353.3	359.8	3.4	2.2	1.6	-1.0	.2
State and local government .....	654.5	808.3	927.7	5.7	5.0	4.2	2.1	1.4
Agriculture .....	257.2	333.7	404.5	2.2	2.1	1.8	2.6	1.9
Private households .....	12.6	14.7	13.3	.1	.1	.1	1.5	-1.0
Special industries <sup>1</sup> .....	529.9	706.8	1,102.2	4.6	4.4	4.9	2.9	4.5
Residual <sup>2</sup> .....	-7.4	-21.3	5.9	-1	-1	.0	...	...

<sup>1</sup> Consists of nonproducing accounting categories to reconcile input-output system with NIPA accounts.

<sup>2</sup> Residual is shown for the first level only. Subcategories do not necessarily add to higher categories as a byproduct of chainweighting.

SOURCES: Historical data are from the Bureau of Economic Analysis, U.S. Department of Commerce; projections are from the Bureau of Labor Statistics.

of total government employment in 1990, is expected to continue to decline to 11.7 percent, shedding an additional 154,000 workers by 2010.

Within the goods-producing sector, construction employment is expected to grow at an annual rate of 1.2 percent rate, adding 825,000 jobs over the 2000–10 period; manufacturing employment is projected to grow 0.3 percent annually, but only regain its 1990 employment level of 19.1 million workers. Employment in mining industries is expected to contract 1.1 percent annually—losing 55,000 jobs.

On the other hand, output for the goods-producing sector is anticipated to keep pace with the service-producing industries. Through strong productivity gains, output for the goods-producing sector is projected to increase by 3.0 percent annually (compared with 3.3 percent for the service-producing sector), and generate \$2.0 trillion in additional output over the projected period. Manufacturing, the dominant goods-producing industry, is projected to expand by \$1.7 trillion from its 2000 level of \$4.6 trillion. Real output for durable goods manufacturing, projected to grow annually at 4.0 percent, is almost double the expected pace of its nondurable goods counterpart. The economy, however, is expected to remain service dominated as that sector's output reaches \$13.1 trillion by 2010. The goods-producing sector, alternatively, is expected

to generate \$7.7 trillion in output by 2010. Almost 40 percent of the projected output for the service-producing industries will be attributed to the services division, which is expected to grow at an annual rate of 3.7 percent, to \$4.4 trillion in 2010 from \$3.0 trillion in 2000. The transportation, communications, and utilities division, as well as the finance, insurance, and real estate division, are expected to be the next two most influential sources of output growth—increasing 4.4 and 3.0 percent, respectively—and generating \$1.3 trillion of combined additional output.

### Service-producing sector

**Transportation.** Jobs in the transportation industries are projected to increase at a 1.9-percent annual rate, to 5.5 million jobs in 2010 from 4.5 million jobs in 2000. Output is projected to increase at a 4.2-percent annual rate, which is faster than that of the overall economy, and the 3.2-percent growth this sector experienced during the last decade. Almost a third of the transportation sector's employment growth and half of its output increases occur in trucking and courier services, except air. (See table 3.) This industry's above-average projected output growth rate of 4.2 percent results in \$121.2 billion worth of additional output being generated by 2010, and

*Text continues on page 47*

**Table 3. Employment and output by industry, 1990, 2000, and projected 2010**

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990-2000	2000-10	1990-2000	2000-10	1990	2000	2010	1990-2000	2000-10
...	Nonfarm wage and salary <sup>1</sup> .....	108,760	130,639	152,447	21,879	21,808	1.8	1.6	10,672	15,128	20,761	3.6	3.2
10-14	Mining .....	709	543	487	-167	-55	-2.6	-1.1	205	212	230	0.3	0.8
10	Metal mining .....	58	41	35	-17	-6	-3.5	-1.5	11	13	16	1.2	2.6
12	Coal mining .....	147	77	54	-69	-23	-6.2	-3.5	25	26	33	0.4	2.4
131,132	Crude petroleum, natural gas, and gas liquids .....	196	129	100	-67	-29	-4.1	-2.5	133	122	130	-.8	0.6
138	Oil and gas field services .....	198	182	188	-17	7	-9	0.4	22	31	28	3.3	-1.0
14	Nonmetallic minerals, except fuels .....	110	114	110	3	-4	0.3	-.3	15	19	24	2.1	2.3
15,16,17	Construction .....	5,120	6,698	7,522	1,578	825	2.7	1.2	730	910	1,182	2.2	2.6
20-39	Manufacturing .....	19,077	18,469	19,047	-607	577	-.3	0.3	3,022	4,601	6,279	4.3	3.2
24,25,32-39	Durable manufacturing .....	11,109	11,138	11,780	29	642	0.0	0.6	1,481	2,785	4,136	6.5	4.0
24	Lumber and wood products .....	733	832	905	99	73	1.3	0.8	106	115	146	0.8	2.4
241	Logging .....	85	80	80	-5	1	-6	0.1	23	15	18	-3.9	1.7
242	Sawmills and planing mills .....	198	185	185	-13	0	-7	0.0	27	34	44	2.2	2.6
243	Millwork, plywood, and structural members .....	262	335	361	74	25	2.5	0.7	31	36	44	1.6	2.1
244,249	Wood containers and misc. wood products .....	130	142	152	12	10	0.9	0.7	17	19	23	1.6	1.9
245	Wood buildings and mobile homes .....	59	91	127	31	36	4.3	3.4	8	10	16	2.0	5.1
25	Furniture and fixtures .....	506	558	630	52	72	1.0	1.2	50	84	111	5.3	2.9
251	Household furniture .....	289	293	283	4	-11	0.1	-.4	24	32	38	3.0	1.8
254	Partitions and fixtures .....	78	91	116	12	25	1.5	2.5	7	14	16	6.8	1.2
252,253,259	Office and misc. furniture and fixtures .....	138	174	231	36	57	2.3	2.9	19	37	57	7.2	4.3
321,322,323	Glass and glass products .....	160	148	140	-12	-8	-.8	-.6	19	25	34	2.9	2.9
324	Hydraulic cement .....	18	18	16	0	-2	-.2	-1.0	6	7	11	2.8	3.7
325,326,328,329	Stone, clay, and miscellaneous mineral products .....	172	165	152	-7	-13	-.4	-.8	20	29	32	3.7	1.0
327	Concrete, gypsum, and plaster products .....	206	248	263	42	14	1.9	0.6	29	42	53	3.7	2.4
33	Primary metal industries .....	756	698	650	-58	-47	-.8	-.7	152	200	239	2.8	1.8
331	Blast furnaces and basic steel products .....	276	225	176	-52	-49	-2.1	-2.4	65	79	73	1.8	-.7
332	Iron and steel foundries .....	132	123	125	-10	2	-.7	0.2	13	18	26	2.7	4.0
333	Primary nonferrous smelting and refining .....	46	36	34	-10	-2	-2.5	-.4	14	18	21	2.5	1.3
334,339	All other primary metals .....	46	45	43	-2	-1	-.3	-.3	10	11	17	1.6	4.4
335	Nonferrous rolling and drawing ..	172	176	173	4	-3	0.2	-0.2	42	60	81	3.7	3.1
336	Nonferrous foundries .....	84	94	99	11	5	1.2	0.5	7	14	19	6.6	2.9
34	Fabricated metal products .....	1,419	1,537	1,661	118	124	0.8	0.8	176	273	387	4.5	3.6
341	Metal cans and shipping containers .....	50	36	26	-14	-10	-3.3	-3.3	14	13	18	-0.5	3.7
342	Cutlery, hand tools, and hardware .....	131	121	110	-11	-11	-.9	-.9	16	21	30	2.5	3.6
343	Plumbing and nonelectric heating equipment .....	60	60	55	0	-5	.0	-.8	7	11	12	4.6	.9
344	Fabricated structural metal products .....	427	498	540	72	42	1.6	.8	49	76	102	4.5	2.9
345	Screw machine products, bolts, rivets, etc. ....	96	107	123	11	16	1.1	1.4	9	26	42	10.6	5.0
346	Metal forgings and stampings .....	225	255	254	30	-1	1.3	.0	31	53	70	5.5	2.9
347	Metal coating, engraving, and allied services .....	120	146	191	27	45	2.0	2.7	10	17	32	4.9	6.8
348	Ordnance and ammunition .....	75	38	35	-37	-3	-6.5	-.9	8	6	7	-3.3	2.1
349	Miscellaneous fabricated metal products .....	237	277	327	40	51	1.6	1.7	32	51	74	4.9	3.7
35	Industrial machinery and equipment .....	2,095	2,120	2,222	26	102	0.1	0.5	214	618	1,117	11.2	6.1
351	Engines and turbines .....	89	85	83	-4	-2	-.5	-.2	19	30	42	4.6	3.6

See footnotes at end of table.

**Table 3. Continued—Employment and output by industry, 1990, 2000, and projected 2010**

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990–2000	2000–10	1990–2000	2000–10	1990	2000	2010	1990–2000	2000–10
352	Farm and garden machinery and equipment .....	106	96	105	-9	9	-.9	0.9	18	24	40	3.0	5.3
353	Construction and related machinery .....	229	240	284	11	44	0.5	1.7	33	53	78	4.9	3.9
354	Metalworking machinery and equipment .....	330	330	330	0	0	.0	0.0	29	38	51	2.8	3.0
355	Special industry machinery .....	159	172	158	13	-14	.8	-.8	23	44	40	6.5	-0.9
356	General industrial machinery and equipment .....	247	251	260	4	9	.2	.3	34	41	55	2.0	2.9
357	Computer and office equipment .....	438	361	350	-76	-11	-1.9	-.3	28	386	1,531	30.1	14.8
358	Refrigeration and service industry machinery .....	177	212	242	35	30	1.8	1.3	29	47	65	5.1	3.2
359	Industrial machinery, n.e.c. ....	320	373	410	53	37	1.5	1.0	26	36	72	3.5	7.0
36	Electronic and other electric equipment .....	1,674	1,719	1,820	45	102	.3	0.6	154	587	984	14.3	5.3
361	Electric distribution equipment ..	97	85	77	-12	-8	-1.3	-1.0	11	15	19	3.3	2.0
362	Electrical industrial apparatus ...	169	150	127	-19	-23	-1.2	-1.7	20	31	51	4.2	5.2
363	Household appliances .....	124	116	97	-8	-19	-.7	-1.8	17	24	26	3.9	0.5
364	Electric lighting and wiring equipment .....	189	183	194	-5	11	-.3	.6	21	32	42	4.4	2.6
365	Household audio and video equipment .....	85	80	77	-5	-3	-.6	-.3	9	12	18	2.5	4.0
366	Communications equipment .....	264	276	290	13	14	.5	.5	41	107	175	10.2	5.0
367	Electronic components and accessories .....	582	682	800	100	118	1.6	1.6	29	386	760	29.3	7.0
369	Miscellaneous electrical equipment .....	165	146	158	-19	13	-1.2	.8	22	32	47	4.0	3.8
37	Transportation equipment .....	1,989	1,849	2,063	-140	214	-.7	1.1	411	613	881	4.1	3.7
371	Motor vehicles and equipment ....	812	1,013	1,100	201	87	2.2	.8	236	433	665	6.3	4.4
372,376	Aerospace .....	897	551	655	-346	104	-4.8	1.7	142	136	162	-.4	1.7
373	Ship and boat building and repairing .....	188	166	170	-22	4	-1.2	.2	20	18	17	-1.0	-.4
374	Railroad equipment .....	33	36	38	3	2	.8	.7	5	10	16	5.9	5.0
375,379	Miscellaneous transportation equipment .....	59	83	99	24	16	3.5	1.8	8	16	22	7.7	3.1
38	Instruments and related products .....	1,006	853	869	-153	17	-1.6	.2	130	177	238	3.2	3.0
381	Search and navigation equipment .....	284	154	140	-130	-14	-5.9	-1.0	40	37	56	-.6	4.2
382	Measuring and controlling devices .....	323	302	300	-21	-2	-.7	-.1	33	46	74	3.2	4.9
384	Medical equipment, instruments, and supplies .....	246	288	338	42	50	1.6	1.6	33	63	87	6.5	3.4
385	Ophthalmic goods .....	43	33	34	-10	1	-2.5	0.2	2	4	5	7.3	2.1
386	Photographic equipment and supplies .....	100	70	55	-29	-15	-3.4	-2.4	20	27	15	3.2	-5.6
387	Watches, clocks, and parts .....	11	5	2	-6	-3	-7.0	-7.2	2	1	0	-8.1	-14.7
39	Miscellaneous manufacturing industries .....	375	394	390	19	-4	0.5	-.1	41	52	79	2.5	4.3
391	Jewelry, silverware, and plated ware .....	52	49	47	-3	-2	-.6	-.4	6	8	9	2.6	1.3
394	Toys and sporting goods .....	104	104	109	0	5	.0	.5	11	16	36	3.6	8.4
393,395,396,399	Manufactured products, n.e.c. ....	220	242	234	22	-8	1.0	-.3	23	28	34	1.9	2.1
20–23,26–31	Nondurable manufacturing .....	7,968	7,331	7,267	-637	-64	-.8	-.1	1,553	1,835	2,220	1.7	1.9
20	Food and kindred products .....	1,661	1,684	1,634	23	-50	.1	-.3	411	499	542	2.0	0.8
201	Meat products .....	422	504	542	82	38	1.8	.7	87	113	140	2.7	2.1
202	Dairy products .....	155	146	121	-10	-24	-.6	-1.8	53	59	67	1.1	1.2
203	Preserved fruits and vegetables .....	247	220	195	-27	-25	-1.2	-1.2	49	57	45	1.6	-2.3
204,207	Grain mill products and fats and oils .....	159	152	150	-7	-2	-0.5	-.1	70	87	96	2.2	1.0
05	Bakery products .....	213	204	191	-9	-13	-.4	-.7	29	32	35	1.0	1.0
206	Sugar and confectionery products .....	99	92	85	-7	-7	-.7	-.8	24	28	32	1.7	1.3

See footnotes at end of table.

**Table 3.** Continued—Employment and output by industry, 1990, 2000, and projected 2010

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990-2000	2000-10	1990-2000	2000-10	1990	2000	2010	1990-2000	2000-10
208	Beverages .....	184	187	165	3	-22	.2	-1.3	66	85	89	2.6	.4
209	Miscellaneous food and kindred products .....	182	180	185	-2	5	-.1	.3	35	39	42	1.0	0.7
21	Tobacco products .....	49	34	29	-15	-5	-3.6	-1.6	36	36	39	.2	.8
22	Textile mill products .....	692	529	500	-163	-29	-2.7	-6	69	78	86	1.3	1.0
221-224,226,228	Weaving, finishing, yarn, and thread mills .....	374	284	250	-90	-34	-2.7	-1.3	34	39	41	1.4	0.4
225	Knitting mills .....	205	126	120	-80	-6	-4.8	-5	15	15	18	.0	1.7
227	Carpets and rugs .....	61	66	73	5	7	.7	1.1	11	14	15	1.6	1.2
229	Miscellaneous textile goods .....	51	54	57	2	3	.5	.6	8	10	12	2.4	2.0
23	Apparel and other textile products .....	1,036	633	530	-403	-103	-4.8	-1.8	65	68	87	.3	2.6
231-238	Apparel .....	832	418	315	-414	-103	-6.7	-2.8	47	44	51	-6	1.3
239	Miscellaneous fabricated textile products .....	204	215	215	11	0	.5	.0	18	23	36	2.6	4.7
26	Paper and allied products .....	697	657	626	-40	-31	-.6	-.5	149	168	195	1.2	1.5
261-263	Pulp, paper, and paperboard mills .....	246	199	176	-48	-23	-2.1	-1.2	64	59	65	-.8	0.9
265	Paperboard containers and boxes .....	209	218	210	9	-8	0.4	-.4	36	45	50	2.2	1.2
267	Converted paper products except containers .....	241	240	240	-1	0	-.1	.0	49	64	79	2.7	2.2
27	Printing and publishing .....	1,570	1,547	1,545	-22	-3	-.1	.0	195	214	240	1.0	1.1
271	Newspapers .....	474	442	432	-33	-10	-.7	-.2	48	44	43	-1.0	-.2
272	Periodicals .....	129	149	165	20	16	1.5	1.0	25	38	44	4.0	1.5
273	Books .....	121	126	136	5	10	.4	0.7	24	23	31	-.5	2.9
274	Miscellaneous publishing .....	82	95	105	13	10	1.5	1.0	11	18	27	4.5	4.3
275,276	Commercial printing and business forms .....	602	603	585	1	-18	.0	-.3	71	76	79	.6	.4
277	Greeting cards .....	25	25	27	0	1	.0	0.6	4	4	4	.1	-.3
278	Blankbooks and bookbinding .....	72	60	55	-13	-4	-1.9	-.8	6	6	7	1.5	.3
279	Service industries for the printing trade .....	64	47	40	-16	-7	-2.9	-1.6	5	5	5	.1	-.9
28	Chemicals and allied products .....	1,086	1,038	1,081	-48	43	-.5	.4	337	403	560	1.8	3.3
281,286	Industrial chemicals .....	293	218	190	-75	-28	-2.9	-1.4	116	100	94	-1.4	-.7
282	Plastics materials and synthetics .....	180	154	130	-26	-24	-1.5	-1.7	52	69	101	2.8	4.0
283	Drugs .....	237	315	390	78	75	2.9	2.2	63	99	171	4.7	5.6
284	Soap, cleaners, and toilet goods .....	159	155	164	-4	9	-.3	.6	47	63	89	2.9	3.6
285	Paints and allied products .....	61	52	56	-9	4	-1.7	.7	16	20	28	1.8	3.8
287	Agricultural chemicals .....	56	51	56	-5	5	-.9	.9	22	25	36	1.2	3.7
289	Miscellaneous chemical products .....	100	93	95	-7	2	-.7	.2	23	27	38	1.7	3.5
29	Petroleum and coal products .....	157	128	113	-30	-15	-2.1	-1.2	171	189	208	1.0	.9
291	Petroleum refining .....	118	85	65	-33	-20	-3.3	-2.6	157	169	181	.7	.7
295,299	Miscellaneous petroleum and coal products .....	40	43	48	3	5	.8	1.0	14	21	27	3.6	2.5
30	Rubber and miscellaneous plastic products .....	888	1,011	1,166	123	156	1.3	1.4	110	170	253	4.5	4.0
301	Tires and inner tubes .....	84	79	82	-5	2	-.6	.3	12	15	23	2.5	4.4
302,305,306	Rubber products and plastic hose and footwear .....	177	187	184	10	-2	.6	-.1	18	26	34	3.4	2.8
308	Miscellaneous plastics products, n.e.c. .....	626	744	900	118	156	1.7	1.9	79	129	196	5.0	4.2
31	Leather and leather products .....	133	72	44	-62	-27	-6.0	4.7	10	10	5	-.2	-6.3
313,314	Footwear, except rubber and plastic .....	80	30	14	-50	-16	-9.3	-7.2	5	3	2	-6.3	-1.5
311,315-317,319	Luggage, handbags, and leather products, n.e.c. .....	53	41	30	-12	-11	-2.5	-3.2	6	8	4	3.2	-6.4
40-42,44-49	Transportation, communication, and utilities .....	5,776	7,019	8,274	1243	1255	2.0	1.7	931	1,278	1,962	3.2	4.4
40-42,44-47	Transportation .....	3,510	4,529	5,466	1019	937	2.6	1.9	387	531	798	3.2	4.2
40	Railroad transportation .....	279	236	175	-43	-60	-1.7	-2.9	35	37	48	.5	2.7
41	Local and interurban passenger transit .....	338	476	624	138	148	3.5	2.7	21	24	31	1.4	2.5

See footnotes at end of table.

**Table 3. Continued—Employment and output by industry, 1990, 2000, and projected 2010**

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990–2000	2000–10	1990–2000	2000–10	1990	2000	2010	1990–2000	2000–10
42	Trucking and warehousing .....	1,395	1,856	2,262	460	407	2.9	2.0	163	255	394	4.6	4.4
421,423	Trucking and courier services except air .....	1,278	1,649	1,962	371	313	2.6	1.8	154	237	359	4.4	4.2
422	Warehousing and storage .....	117	206	300	89	94	5.8	3.8	10	17	35	6.2	7.2
44	Water transportation .....	177	196	208	19	13	1.0	.6	37	40	50	.9	2.3
45	Air transportation .....	968	1,281	1,600	314	319	2.8	2.2	96	125	192	2.6	4.4
46	Pipelines, except natural gas ....	19	14	11	-5	-2	-3.0	-1.7	8	7	9	-2.2	3.3
47	Transportation services .....	336	471	585	135	114	3.4	2.2	26	43	73	5.1	5.5
472	Passenger transportation arrangement .....	188	219	235	30	17	1.5	.7	10	19	34	6.7	6.0
473,474,478	Miscellaneous transportation services .....	148	253	350	105	97	5.5	3.3	16	24	40	4.0	5.2
48	Communications .....	1,309	1,639	1,916	330	277	2.3	1.6	245	419	750	5.5	6.0
481–2,489	Telephone communications and services .....	950	1,168	1,310	218	143	2.1	1.2	185	341	638	6.3	6.5
484	Cable and pay television services .....	126	216	325	90	109	5.5	4.2	26	35	60	2.8	5.7
483	Radio and TV Broadcasting .....	234	255	280	22	25	0.9	0.9	35	45	59	2.6	2.7
49	Utilities .....	957	851	893	-106	42	-1.2	0.5	299	326	417	0.9	2.5
491	Electric utilities .....	454	357	324	-98	-33	-2.4	-1.0	176	212	275	1.9	2.6
492	Gas utilities .....	165	128	120	-37	-8	-2.5	-1.6	66	49	63	-3.0	2.6
493	Combined utilities .....	193	152	138	-41	-14	-2.4	-1.0	32	38	46	1.5	2.1
494–497	Water and sanitation .....	145	214	310	69	96	4.0	3.8	24	29	34	1.8	1.8
50,51	Wholesale trade .....	6,173	7,024	7,800	851	776	1.3	1.1	608	920	1,410	4.2	4.4
2–59	Retail trade .....	19,601	23,307	26,400	3,706	3,093	1.7	1.3	897	1,222	1,628	3.1	2.9
52–57,59	Retail trade excluding eating and drinking places .....	13,092	15,194	16,800	2,102	1,606	1.5	1.0	652	926	1,237	3.6	2.9
58	Eating and drinking places .....	6,509	8,114	9,600	1,605	1,486	2.2	1.7	245	298	393	2.0	2.8
60–67	Finance, Insurance, and Real Estate .....	6,709	7,560	8,247	851	687	1.2	0.9	1,198	1,806	2,429	4.2	3.0
60	Depository institutions .....	2,251	2,029	1,999	-221	-31	-1.0	-2	266	446	596	5.3	2.9
61,67	Nondepository; holding and investment offices .....	593	932	1,075	339	143	4.6	1.4	70	122	152	5.8	2.2
62	Security and commodity brokers .....	424	748	900	324	152	5.8	1.9	57	292	540	17.7	6.4
63	Insurance carriers .....	1,462	1,589	1,632	127	43	0.8	0.3	211	228	259	0.8	1.3
64	Insurance agents, brokers, and service .....	663	757	865	93	109	1.3	1.3	68	81	103	1.8	2.4
65	Real estate .....	1,315	1,504	1,776	189	272	1.4	1.7	535	653	822	2.0	2.3
...	Royalties .....	—	—	—	—	—	—	—	55	96	191	5.8	7.1
...	Owner-occupied dwellings .....	—	—	—	—	—	—	—	493	631	943	2.5	4.1
70–87,89	Services .....	27,291	39,340	52,233	12,049	12,893	3.7	2.9	2,057	3,032	4,378	4.0	3.7
701	Hotels .....	1,578	1,845	2,100	267	255	1.6	1.3	85	108	136	2.5	2.3
702–704	Other lodging places .....	53	67	67	14	0	2.3	.0	5	7	10	2.8	4.7
72	Personal services .....	1,104	1,251	1,354	147	103	1.3	.8	76	101	147	2.9	3.8
721,725	Laundry, cleaning, and shoe repair .....	433	451	470	18	19	0.4	.4	22	25	28	1.6	0.8
722,729	Personal services, n.e.c. ....	200	266	287	66	21	2.9	.8	26	40	64	4.6	4.9
723,724	Beauty and barber shops .....	389	433	490	44	57	1.1	1.2	20	26	40	2.6	4.5
726	Funeral service and crematories .....	83	101	107	18	6	2.0	.6	9	10	14	1.0	4.1
73	Business services .....	5,139	9,858	14,923	4,719	5,064	6.7	4.2	342	713	1,278	7.6	6.0
731	Advertising .....	235	302	400	68	98	2.6	2.9	27	47	67	5.8	3.5
734	Services to buildings .....	807	994	1,120	188	126	2.1	1.2	31	50	71	5.0	3.6
735	Miscellaneous equipment rental and leasing .....	208	279	397	71	118	3.0	3.6	28	39	60	3.2	4.4
736	Personnel supply services .....	1,535	3,887	5,800	2,353	1,913	9.7	4.1	38	101	167	10.2	5.1
737	Computer and data processing services .....	772	2,095	3,900	1,323	1,805	10.5	6.4	99	278	601	10.8	8.0
732,733,738	Miscellaneous business services .....	1,584	2,301	3,305	717	1,004	3.8	3.7	119	198	313	5.2	4.7
75	Auto repair, services, and garages .....	914	1,248	1,527	335	278	3.2	2.0	104	166	286	4.8	5.6
751	Automotive rentals, without drivers .....	173	225	265	52	41	2.7	1.7	17	63	151	14.0	9.1

See footnotes at end of table.

**Table 3. Continued—Employment and output by industry, 1990, 2000, and projected 2010**

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990-2000	2000-10	1990-2000	2000-10	1990	2000	2010	1990-2000	2000-10
752-754	Automobile parking, repair, and services .....	741	1,024	1,262	283	238	3.3	2.1	87	103	136	1.7	2.8
76	Miscellaneous repair shops .....	374	366	405	-9	39	-2	1.0	44	51	62	1.5	2.1
762	Electrical repair shops .....	112	104	103	-8	-1	-7	-1	15	15	14	-3	-2
763,764	Watch, jewelry, and furniture repair .....	30	29	27	0	-2	-1	-8	2	3	5	3.5	3.2
769	Miscellaneous repair services .....	233	233	275	-1	42	.0	1.7	26	33	43	2.3	2.8
78	Motion pictures .....	408	594	672	186	78	3.8	1.2	45	77	86	5.7	1.1
781-783	Motion pictures .....	274	426	499	152	73	4.5	1.6	40	69	77	5.6	1.1
784	Video tape rental .....	134	168	173	34	5	2.3	.3	5	9	9	5.8	.6
79	Amusement and recreation services .....	1,076	1,728	2,325	652	597	4.9	3.0	75	137	212	6.2	4.4
792	Producers, orchestras, and entertainers .....	136	181	225	45	44	2.9	2.2	18	28	35	4.6	2.3
793	Bowling centers .....	91	81	70	-10	-11	-1.2	-1.5	4	3	3	-2.4	-2.0
794	Commercial sports .....	101	153	180	52	28	4.2	1.7	13	15	19	1.4	1.9
791,799	Amusement and recreation services, n.e.c. ....	748	1,314	1,850	566	536	5.8	3.5	40	91	156	8.4	5.6
80	Health Services .....	7,814	10,095	12,934	2,281	2,839	2.6	2.5	595	762	882	2.5	1.5
801-804	Offices of health practitioners .....	2,166	3,099	4,344	933	1,245	3.6	3.4	254	317	374	2.3	1.7
805	Nursing and personal care facilities .....	1,415	1,796	2,190	381	394	2.4	2.0	55	69	85	2.4	2.1
806	Hospitals .....	3,549	3,990	4,500	442	510	1.2	1.2	236	292	315	2.1	0.8
807-809	Health services, n.e.c. ....	685	1,210	1,900	525	690	5.9	4.6	52	84	108	5.0	2.5
81	Legal services .....	908	1,010	1,350	102	340	1.1	2.9	134	143	195	.7	3.2
82	Educational services .....	1,661	2,325	2,852	664	527	3.4	2.1	91	113	142	2.1	2.3
83	Social services .....	1,734	2,903	4,128	1,169	1,225	5.3	3.6	76	103	171	3.1	5.2
832,839	Individual and miscellaneous social services .....	634	1,005	1,300	372	295	4.7	2.6	31	47	77	4.1	5.1
833	Job training and related services .....	248	380	500	131	120	4.3	2.8	9	9	14	.2	4.8
835	Child day care services .....	391	712	1,010	321	298	6.2	3.6	20	24	40	2.0	5.2
836	Residential care .....	461	806	1,318	345	512	5.7	5.0	16	24	41	4.2	5.5
84	Museums, botanical, zoological gardens .....	66	106	135	40	29	4.9	2.4	3	6	9	5.0	4.6
86	Membership organizations .....	1,945	2,475	2,734	529	259	2.4	1.0	79	96	122	2.0	2.4
87,89	Engineering, management, and other services .....	2,516	3,469	4,729	953	1,260	3.3	3.1	290	434	640	4.1	3.9
871	Engineering and architectural services .....	786	1,017	1,330	231	313	2.6	2.7	103	133	211	2.6	4.7
873	Research and testing services ...	549	642	886	94	244	1.6	3.3	39	67	108	5.6	4.9
874	Management and public relations .....	610	1,090	1,550	479	460	6.0	3.6	79	147	195	6.5	2.8
872,89	Accounting, auditing, and other services .....	571	720	963	149	243	2.3	3.0	70	87	127	2.3	3.8
...	Government .....	18,304	20,680	22,436	2,376	1,757	1.2	.8	1,043	1,162	1,287	1.1	1.0
...	Federal Government .....	3,085	2,777	2,622	-308	-154	-1.0	-6	389	353	360	-1.0	0.2
...	Federal enterprises .....	1,026	975	952	-51	-23	-5	-2	69	85	94	2.1	0.9
...	U.S. Postal Service .....	819	860	850	41	-10	0.5	-1	55	65	74	1.7	1.4
...	Federal electric utilities .....	31	27	22	-4	-5	-1.3	-2.2	6	11	10	5.8	-1.4
...	Federal government enterprises, n.e.c. ....	177	88	80	-89	-8	-6.7	-9	9	10	10	.9	.5
...	Federal general government .....	2,059	1,802	1,671	-257	-131	-1.3	-8	256	200	190	-2.4	-5
...	Federal government capital services .....	—	—	—	—	—	—	—	65	68	78	.5	1.3
...	State and local government .....	15,219	17,903	19,814	2,684	1,911	1.6	1.0	655	808	928	2.1	1.4
...	State and local enterprises .....	913	869	918	-44	49	.5	.5	103	139	189	3.1	3.2
...	Local government passenger transit .....	207	223	225	16	2	.7	.1	6	7	8	1.9	0.6
...	State and local electric utilities .	82	89	95	7	6	.8	.7	19	24	28	2.4	1.3
...	State and local government enterprises, n.e.c. ....	624	557	598	-67	41	-1.1	0.7	77	107	154	3.3	3.7
...	State and local general government .....	14,306	17,034	18,896	2,728	1,862	1.8	1.0	552	670	738	2.0	1.0

See footnotes at end of table.



**Table 3. Continued—Employment and output by industry, 1990, 2000, and projected 2010**

Standard Industrial Classification	Industry	Employment							Output				
		Thousands of jobs			Change		Average annual rate of change		Billions of chained 1996 dollars			Average annual rate of change	
		1990	2000	2010	1990-2000	2000-10	1990-2000	2000-10	1990	2000	2010	1990-2000	2000-10
...	State and local government hospitals .....	1,072	970	948	-102	-22	-1.0	-2	42	45	51	0.8	1.2
...	State and local government education .....	7,771	9,472	10,548	1,700	1,076	2.0	1.1	265	303	302	1.3	0.0
...	State and local general government, n.e.c. ....	5,462	6,592	7,400	1,130	808	1.9	1.2	199	227	255	1.3	1.2
...	State and local government capital services .....	—	—	—	—	—	—	—	46	96	135	7.5	3.5
01,02,07,08,09	Agriculture <sup>2</sup> .....	3,340	3,526	3,849	186	323	0.5	0.9	257	334	405	2.6	1.9
01,02	Agricultural production .....	2,174	1,979	1,824	-196	-155	-1.1	-7	210	260	315	2.2	1.9
07	Agricultural services .....	1,166	1,548	2,025	382	477	2.9	2.7	36	58	70	4.8	1.9
074	Veterinary services .....	143	240	336	97	96	5.3	3.4	8	16	20	6.7	2.5
078	Landscape and horticultural services .....	576	808	1,093	233	285	3.5	3.1	18	27	36	4.4	2.7
07(excl. 074 and 078)	Agricultural, forestry and fisheries services, n.e.c. ....	339	403	501	63	99	1.7	2.2	10	15	14	3.9	-6
08,09	Forestry, fishing, hunting, and trapping .....	108	97	95	-11	-2	-1.1	-2	12	15	19	2.5	2.3
88	Private household wage and salary .....	1,014	890	664	-124	-226	-1.3	-2.9	13	15	13	1.5	-1.0
...	Nonagricultural self-employed and unpaid family <sup>3,4</sup> .....	8,921	8,731	9,062	-190	331	-2	.4	—	—	—	—	—
...	Secondary wage and salary jobs in agriculture (except agricultural service); forestry, fishing, hunting, and trapping; private households <sup>5</sup> .....	205	155	150	-50	-5	-2.8	-3	—	—	—	—	—
...	Secondary jobs as a self-employed worker or unpaid family worker <sup>6</sup> .....	2,084	1,652	1,582	-432	-70	-2.3	-4	—	—	—	—	—
...	Total <sup>7,8</sup> .....	124,324	145,594	167,754	21,269	22,160	1.6	1.4	11,472	16,180	22,286	3.5	3.3

<sup>1</sup> Excludes sic 074,5,8 (agricultural services) and 99 (nonclassifiable establishments). The data therefore are not exactly comparable with data published in *Employment and Earnings*.

<sup>2</sup> Excludes government wage and salary workers, and includes private sector for sic 08,09 (forestry, hunting, and trapping; and private households).

<sup>3</sup> Excludes sic 08,09 (forestry, fishing, hunting, and trapping).

<sup>4</sup> Comparable estimate of output growth is not available.

<sup>5</sup> Workers who hold a secondary wage and salary job in agriculture (except agricultural services); forestry, fishing, hunting, and trapping; and private households.

<sup>6</sup> Wage and salary workers who hold a secondary wage and salary job as a self-employed or unpaid family worker.

<sup>7</sup> Wage and salary data are from the Current Employment Statistics (payroll) survey, which counts jobs, whereas self-employed, unpaid family workers, agricultural, forestry, fishing, hunting, and trapping, and private household data are from the Current Population Survey (household survey), which counts workers.

<sup>8</sup> Subcategories do not necessarily add to higher categories as a by product of chainweighting.

NOTE: Dash indicates data not available.

n.e.c. = not elsewhere classified.

SOURCES: Historical output data are from the Bureau of Economic Analysis, U.S. Department of Commerce.

is one of the largest sources of output growth projected for the economy. With accompanying employment gains of 313,000, rising to more than 1.9 million in 2010 from 1.6 million in 2000, this industry is also expected to be one of the economy's largest sources of employment growth. Complementing the trucking industry, the warehouse and storage industry is expected to be one of the fastest employment and

output gainers—increasing by 3.8 percent to 300,000 jobs in 2010, up from 206,000 in 2000. Output for this industry is projected to grow at an aggressive 7.2 percent, and reach \$34.9 million by 2010. The effect of electronic commerce and expansion into logistical services such as computer inventory management and just-in-time shipping has been the driving force for growth in these industries. As manufacturers continue to

improve supply chain efficiencies by outsourcing their distribution needs, the trucking and warehouse industries will have more visible roles in the economy.

Due to increases in population, disposable income, and domestic and foreign business activity, the air transportation industry is projected to be another sector that stands out. Employment is expected to increase at a healthy 2.2 percent annually over the projected period, resulting in 319,000 new jobs. The projected output growth rate of 4.4 percent surpasses the 2.6-percent rate experienced during the last decade and results in a \$66.6 billion increase.

*Communications.* With a 6-percent projected output growth rate, the communications sector is the fastest growing sector in the economy. Spurred by deregulation and technological innovation, real output for this sector is expected to increase by \$330.9 billion between 2000 and 2010, to reach \$750.2 billion by 2010. Employment is projected to increase by 277,000 and attain 1.9 million jobs by 2010. Accounting for almost a third of this sector's employment and 80 percent of its output in 2000, the telephone and telegraph communications and communication service industry is this sector's dominant industry. Strong residential and business demand for improved wireline and wireless systems will ensure this industry's prolonged growth. Technology and competition are expected to continue working concurrently to lower prices, increase demand, and spur new innovations. This will result in this industry being the 6th largest and 10th fastest in terms of output. Real annual output growth of 6.5 percent is anticipated, resulting in an increase of \$297.1 billion over the projected period. Deregulation has accentuated this trend by allowing this industry to offer a variety of services, such as high-speed Internet access.

As the above-mentioned developments progress, the distinctions between the telephone and the cable and pay television industries will continue to blur. Specifically, industry deregulation and fiber optic technology have enabled the cable and pay television services industry, which was solely a pay television service, to expand into new telecommunication services such as high-speed Internet access, telephone communication, and digital television programming. This has resulted in the cable and pay television industry being in the top 20 in terms of output growth pace. Real annual output growth of 5.7 percent is projected, a \$25.4 billion increase over the 2000 level. Similarly, the industry's employment is projected to grow to 325,000 jobs in 2010, up from 216,000 in 2000, making the resulting 4.2-percent growth rate the fourth fastest in the economy. (See tables 4 and 5.)

*Retail trade.* The retail trade industry, excluding eating and drinking places, is the Nation's largest employer, with about

15.2 million jobs in 2000. Even though the projected employment annual growth rate of 1 percent represents a slowdown relative to the past decade, this industry, by adding 1.6 million new jobs and reaching 16.8 million jobs by 2010, will continue to be the dominant source of employment. Real output for retail trade, excluding eating and drinking places, is projected to grow to \$1.2 trillion in 2010 from \$926.1 billion in 2000, or at an average annual rate of 2.9 percent. The eating and drinking industry, which is expected to add about 1.5 million jobs, also plays a principal job creation role in the economy. Demographic factors such as increases in population, personal incomes, leisure time, and dual-income families will contribute to employment in this industry increasing to 9.6 million from 8.1 million during the 2000–10 projection period. Output for eating and drinking places is projected to increase at an annual average rate of 2.8 percent.

*Wholesale trade.* Employment in the wholesale trade industry is projected to increase by 776,000, reaching 7.8 million in 2010, up from 7.0 million in 2000. Real output is expected to expand by nearly \$489.3 billion between 2000 and 2010, to \$1.4 trillion from \$920 trillion. Due in part to its relative size, this ranks the wholesale trade industry as one of the main sources of employment and output growth over the projections period. Employment's projected annual growth rate of 1.1 percent is constrained by consolidations and productivity-enhancing technology such as e-commerce.<sup>4</sup> However, reflecting the 4.4-percent growth rate in output, the economy will still need the valuable supply and distribution services provided by the wholesale trade industry.

*Finance, insurance, and real estate.* Employment in the finance, insurance, and real estate sector is projected to increase by 687,000, up from its 2000 level of 7.6 million. This reflects an annual growth rate of 0.9 percent, slower than the total nonfarm wage and salary increase (1.6 percent) and caused, in part, by deregulation, industry consolidation, heightened competition, and technology-driven productivity gains. However, reflecting aggressive output gains in the security and commodity brokers industry, real estate, and depository institutions—all in the top 20 in terms of output growth—the finance, insurance, and real estate sector's projected output growth rate of 2.9 percent keeps pace with the overall economy. Real output is projected to increase to \$2.4 trillion in 2010, up from \$1.8 trillion in 2000.

Depository institutions, which include commercial banks, credit unions, and savings and loans, are projected to continue shedding jobs. Trends such as electronic home banking, the increased use of ATM machines and debit cards, and improved credit scoring software that streamlines the loan approval process will underline a projected job loss of 31,000,

**Table 4. Industries with the fastest and slowest wage and salary employment growth, 2000–2010**

Standard Industrial Classification	Industry description	Thousands of jobs		Change	Average annual rate of change
		2000	2010	2000–10	2000–10
<b>Fastest growing</b>					
737	Computer and data processing services .....	2,094.9	3,900.0	1,805.1	6.4
836	Residential care .....	805.9	1,318.0	512.1	5.0
807–809	Health services, n.e.c. ....	1,210.2	1,900.0	689.8	4.6
484	Cable and pay television services .....	215.8	325.0	109.2	4.2
736	Personnel supply services .....	3,887.0	5,800.0	1,913.0	4.1
422	Warehousing and storage .....	206.3	300.0	93.7	3.8
494–497	Water and sanitation .....	213.9	310.3	96.4	3.8
732,733,738	Miscellaneous business services .....	2,300.9	3,305.0	1,004.1	3.7
735	Miscellaneous equipment rental and leasing .....	279.4	397.5	118.1	3.6
874	Management and public relations .....	1,089.7	1,550.0	460.3	3.6
835	Child day care services .....	711.9	1,010.0	298.1	3.6
791,799	Amusement and recreation services, n.e.c. ....	1,313.6	1,850.0	536.4	3.5
801–804	Offices of health practitioners .....	3,098.8	4,344.0	1,245.2	3.4
245	Wood buildings and mobile homes .....	90.8	127.0	36.2	3.4
4	Veterinary services .....	240.0	335.9	95.9	3.4
473,474,478	Miscellaneous transportation services .....	252.8	350.0	97.2	3.3
78	Landscape and horticultural services .....	808.0	109.3	285.0	3.1
873	Research and testing services .....	642.3	886.0	243.7	3.3
872,89	Accounting, auditing, and other services .....	720.0	963.0	243.0	3.0
81	Legal services .....	1,009.6	1,350.0	340.4	2.9
<b>Most rapidly declining</b>					
387	Watches, clocks, and parts .....	5.3	2.5	-2.8	-7.2
313,314	Footwear, except rubber and plastic .....	30.1	14.2	-15.9	-7.2
12	Coal mining .....	77.2	54.0	-23.2	-3.5
341	Metal cans and shipping containers .....	35.9	25.6	-10.3	-3.3
311,315–317,319	Luggage, handbags, and leather products, n.e.c. ....	41.4	30.0	-11.4	-3.2
40	Railroad transportation .....	235.5	175.0	-60.5	-2.9
88	Private households .....	890.0	664.4	-225.6	-2.9
231–238	Apparel .....	417.9	314.9	-103.0	-2.8
291	Petroleum refining .....	84.6	65.0	-19.6	-2.6
131,132	Crude petroleum, natural gas, and gas liquids .....	129.3	100.0	-29.3	-2.5
386	Photographic equipment and supplies .....	70.2	55.0	-15.2	-2.4
331	Blast furnaces and basic steel products .....	224.5	176.0	-48.5	-2.4
...	Federal electric utilities .....	27.0	21.6	-5.4	-2.2
202	Dairy products .....	145.5	121.1	-24.4	-1.8
363	Household appliances .....	116.2	96.9	-19.3	-1.8
46	Pipelines, except natural gas .....	13.7	11.5	-2.2	-1.7
282	Plastics materials and synthetics .....	154.3	130.0	-24.3	-1.7
362	Electrical industrial apparatus .....	150.4	127.0	-23.4	-1.7
279	Service industries for the printing trade .....	47.2	40.0	-7.2	-1.6
21	Tobacco products .....	33.9	28.9	-5.0	-1.6

NOTE: n.e.c. = not elsewhere classified.

ranking it in the top 10 largest employment declines. This is contrasted by the \$150 billion output growth over the period, reaching \$596.3 billion in 2010 (the 2000 level was 446.2 million). With recent industry deregulation, the traditional boundaries between banking and other financial services continue to be obscured as banks begin to offer financial planning, brokerage, and insurance services, a trend that should help mitigate employment declines, while fostering output growth.

The security and commodity brokers industry is expected to be one of the fastest growing sources of annual output growth—6.4 percent. Baby-boomers entering the middle of

their peak savings years, the growth of tax-favorable retirement plans, and the globalization of security and commodity markets will contribute to this industry, growing by \$248.7 billion to an output level of \$540.4 billion—almost double the 2000 level. Employment, adversely effected by telecommunication and computer technology that automates transactions, will create less than half as many jobs over the projected 2000–10 period (152,000) than over the previous 10 years (324,000). This industry's projected total employment of 900,000 represents a 1.9-percent annual growth rate, compared with the 5.8-percent rate experienced over the 1990–2000 historical period.

**Table 5. Industries with the fastest and slowest output growth, 2000–10**

Standard Industrial Classification	Industry description	Billions of chained (1996) dollars		Change	Average annual rate of change
		2000	2010	2000–10	2000–10
<b>Fastest growing</b>					
357	Computer and office equipment .....	385.7	1,531.1	1,145.4	14.8
751	Automotive rentals, without drivers .....	63.2	150.8	87.7	9.1
394	Toys and sporting goods .....	16.1	36.2	20.1	8.4
737	Computer and data processing services .....	278.2	600.8	322.6	8.0
422	Warehousing and storage .....	17.5	34.9	17.4	7.2
n.a.	Royalties .....	96.2	191.2	95.0	7.1
359	Industrial machinery, n.e.c. ....	36.4	71.9	35.5	7.0
367	Electronic components and accessories .....	386.3	759.9	373.6	7.0
347	Metal coating, engraving, and allied services .....	16.7	32.2	15.4	6.8
481–2,489	Telephone communications and services .....	340.8	637.9	297.1	6.5
62	Security and commodity brokers .....	291.7	540.4	248.7	6.4
472	Passenger transportation arrangement .....	18.8	33.6	14.8	6.0
484	Cable and pay television services .....	34.5	59.9	25.4	5.7
283	Drugs .....	98.6	170.5	72.0	5.6
791,799	Amusement and recreation services, n.e.c. ....	90.8	156.4	65.6	5.6
836	Residential care .....	23.8	40.9	17.0	5.5
352	Farm and garden machinery and equipment .....	23.7	39.8	16.0	5.3
362	Electrical industrial apparatus .....	30.6	51.1	20.4	5.2
835	Child daycare services .....	24.3	40.4	16.1	5.2
473,474,478	Miscellaneous transportation services .....	24.0	39.7	15.7	5.2
<b>Most rapidly declining</b>					
387	Watches, clocks, and parts .....	0.7	0.1	–6	–14.7
311,315–317,319	Luggage, handbags, and leather products, n.e.c. ..	7.7	4.0	–3.7	–6.4
386	Photographic equipment and supplies .....	27.2	15.3	–11.9	–5.6
203	Preserved fruits and vegetables .....	56.9	45.0	–11.9	–2.3
793	Bowling centers .....	3.2	2.6	–6	–2.0
313,314	Footwear, except rubber and plastic .....	2.5	2.2	–3	–1.5
...	Federal electric utilities .....	10.9	9.5	–1.4	–1.4
138	Oil and gas field services .....	30.7	27.7	–3.0	–1.0
88	Private households .....	14.7	13.3	–1.4	–1.0
355	Special industry machinery .....	43.7	39.8	–3.9	–9
279	Service industries for the printing trade .....	5.2	4.8	–4	–9
331	Blast furnaces and basic steel products .....	78.6	73.0	–5.6	–7
281,286	Industrial chemicals .....	100.4	94.0	–6.4	–7
...	Federal general government .....	200.1	189.9	–10.2	–5
373	Ship and boat building and repairing .....	17.6	17.0	–6	–4
277	Greeting cards .....	4.2	4.1	–1	–3
762	Electrical repair shops .....	14.7	14.4	–3	–2
271	Newspapers .....	43.8	43.0	–8	–2
...	State and local government education .....	302.9	301.6	–1.2	0.0
278	Blankbooks and bookbinding .....	6.4	6.6	0.2	0.3

NOTE: n.e.c. = not elsewhere classified.

Real estate employment is projected to rise to 1.8 million (from 1.5 million) between 2000 and 2010, slightly faster than that of the overall economy. A general population increase and the shift in its age distribution over the next 10 years will also contribute to output expanding by 2.3 percent annually, a continuation of the rate experienced over the previous decade. This industry will continue to see productivity and efficiency increases as agents use the Internet to disseminate housing, credit, and payment information, along with wireless products that can transmit data on site.

*Services.* The variety of industries that make up the services industry, a subset of the service-producing sector, will collectively account for 3 out of every 5 new jobs created in the U.S. economy between 2000 and 2010. Businesses within this sector supply services to a wide variety of other businesses and to individuals. The services industry will contribute 12.9 million of the 21.8 million increase expected in nonfarm wage and salary employment through 2010. Service industry employment is expected to reach 52.2 million jobs in 2010, up from 39.3 million in 2000. This 2.9-percent increase is the highest annual growth rate of any industry division.

*Business services.* Employment for the business services group increased by 4.7 million over the 1990–2000 period, posting a 6.7-percent annual growth rate. The projected 2000–10 employment increase of almost 5.1 million translates into 14.9 million total jobs, and represents an annual growth rate of 4.2 percent. Despite the relative slowdown in the rate of employment growth, business services are expected to be the fastest growing industry group in the services division. Real output in the business services sector is also projected to grow strongly to \$1.3 trillion in 2010 from \$713 billion in 2000, or at a division leading average annual rate of 6.0 percent.

The economy's fastest growing industry, and the second largest in terms of employment, is computer and data processing services. Firms in this industry provide prepackaged and specialized software, data and computer systems design and management, and various computer-related consulting services. Reflecting businesses' need to integrate new technologies, capitalize on software enhancements, expand Internet usage and electronic commerce, and maintain network security, this industry is projected to gain 1.8 million jobs over the 2000–10 period, the result of 6.4-percent annual average growth. The persistent evolution of technology and businesses' constant efforts to absorb and integrate these resources in order to enhance their productivity and expand their market opportunities will be the growth catalysts in computer and data processing services. Resonating this trend, this industry is also expected to be both the fourth fastest and largest source of output growth in the economy by 2010. Output is expected to reach \$600.8 billion by 2010 (an increase by \$322.6 billion from its 2000 level), reflecting an 8.0-percent average annual growth rate.

The largest source of employment growth in the economy is projected to be the personnel supply services industry. (See table 6.) This business services industry, comprising employment agencies and temporary staffing services, is projected to add 1.9 million jobs, to 5.8 million in 2010 from 3.9 million in 2000. Staffing services will be responsible for the majority of this industry's aggressive growth, as businesses endeavor to become more responsive to changes in market demand. However, as companies also strive to reduce costs by contracting out their preliminary employment screening tasks, this sector's employment agency portion will experience growth as well.

Strong employment and output growth is projected in the miscellaneous business services industry. This industry provides a wide variety of services ranging from credit reporting and collection agencies to photocopying, graphic design, and paralegal services. Between 2000 and 2010, real output is expected to expand to \$312.8 billion from \$197.7 billion, and employment, to 3.3 million jobs from 2.3 million. The miscellaneous equipment rental and leasing industry is another business service whose employment is expected to grow faster than the overall economy. This industry engages in the rental

and leasing of equipment primarily to the medical and construction industries. The projected 3.6-percent average annual growth rate yields 118,100 new jobs by 2010.

*Health services.* Approximately 71.7 million people are expected to be 55 or older by 2010, 15.4 million more than that demographic cohort represented in 2000. Their projected 2.4-percent annual growth rate is more than double the annual increases for the total population aged 16 and older. The gradual aging of the population, coupled with advances in medical technologies that increase life expectancies, will create strong demand for health services. Comprised mostly of health practitioner offices, nursing and personal care facilities, and hospitals, this sector's projected 2.5-percent average annual employment growth rate will yield 2.8 million new jobs.

Reflecting the aging population, nursing and personal care facilities and health services (not elsewhere classified) are expected to be among the economy's fastest and largest sources of future employment growth. Employment in nursing and personal care facilities is projected to increase 394,000 from its 2000 level of 1.8 million. Government budget constraints, the shift toward less expensive home healthcare and assisted living, and a healthier elderly population will limit employment growth in nursing homes. Health services, not elsewhere classified, which includes home healthcare services, is expected to increase at a 4.6-percent annual rate to 1.9 million jobs in 2010, up from 1.2 million jobs in 2000. An aging population, many of whom will have functional disabilities, and the elderly's desire to maintain an independent style of living will result in this industry having the distinction of being the economy's third most rapidly growing industry in terms of employment.

Employment in private hospitals, the slowest growing health services sector, is expected to increase at an average annual rate of 1.2 percent. However, due to this industry's relatively large size, private hospitals are projected to add 510,000 jobs by 2010 and reach a total employment level of 4.5 million. The aging population, new medical technologies, and developments in diagnostic testing and screening that allow more medical ailments to be detected and treated, will continue to increase demand for hospital services. However, shifts from inpatient hospitals to outpatient facilities coupled with progressive technological improvements and industry consolidations will continue to impede long-term growth. These sources that constrain employment growth in hospitals will result in aggressive growth in health practitioner offices. These facilities provide medical, surgical, and dental services outside the traditional hospital setting and are expected to create 1.3 million new jobs—almost half of the new jobs generated by the health services sector. As the shift from inpatient hospital care to outpatient facilities continues, facilitated by medical technology enhancements and managed care cost

**Table 6. Industries with the largest wage and salary employment growth and declines, 2000–10**

Standard Industrial Classification	Industry description	Thousands of jobs		Change	Average annual rate of change
		2000	2010	2000–10	2000–10
<b>Largest growth</b>					
737	Computer and data processing services .....	2,094.9	3,900.0	1,805.1	6.4
52–57,59	Retail trade exc. eating and drinking places .....	15,193.5	16,799.9	1,606.4	1.0
58	Eating and drinking places .....	8,113.7	9,600.0	1,486.3	1.7
801–804	Offices of health practitioners .....	3,098.8	4,344.0	1,245.2	3.4
...	State and local government education .....	9,471.8	10,548.2	1,076.4	1.1
732,733,738	Miscellaneous business services .....	2,300.9	3,305.0	1,004.1	3.7
15,16,17	Construction .....	6,697.5	7,522.3	824.8	1.2
...	State and local general government, n.e.c. ....	6,592.2	7,400.0	807.8	1.2
50,51	Wholesale trade .....	7,023.8	7,800.0	776.2	1.1
807–809	Health services, n.e.c. ....	1,210.2	1,900.0	689.8	4.6
791,799	Amusement and recreation services, n.e.c. ....	1,313.6	1,850.0	536.4	3.5
82	Educational services .....	2,325.1	2,851.8	526.7	2.1
836	Residential care .....	805.9	1,318.0	512.1	5.0
806	Hospitals .....	3,990.3	4,500.0	509.7	1.2
874	Management and public relations .....	1,089.7	1,550.0	460.3	3.6
805	Nursing and personal care facilities .....	1,795.9	2,190.0	394.1	2.0
81	Legal services .....	1,009.6	1,350.0	340.4	2.9
45	Air transportation .....	1,281.3	1,600.0	318.7	2.2
421,423	Trucking and courier services except air .....	1,649.3	1,962.4	313.1	1.8
<b>Largest declines</b>					
88	Private households .....	890.0	664.4	-225.6	-2.9
01,02	Agricultural production .....	1,978.8	1,823.9	-154.9	-0.8
...	Federal general government .....	1,802.0	1,670.8	-131.2	-0.8
231–238	Apparel .....	417.9	314.9	-103.0	-2.8
40	Railroad transportation .....	235.5	175.0	-60.5	-2.9
331	Blast furnaces and basic steel products .....	224.5	176.0	-48.5	-2.4
221–224,226,228	Weaving, finishing, yarn, and thread mills .....	283.7	250.0	-33.7	-1.3
491	Electric utilities .....	356.7	324.0	-32.7	-1.0
60	Depository institutions .....	2,029.3	1,998.7	-30.6	-2
131,132	Crude petroleum, natural gas, and gas liquids ...	129.3	100.0	-29.3	-2.5
281,286	Industrial chemicals .....	217.7	190.0	-27.7	-1.4
203	Preserved fruits and vegetables .....	219.8	195.0	-24.8	-1.2
202	Dairy products .....	145.5	121.1	-24.4	-1.8
282	Plastics materials and synthetics .....	154.3	130.0	-24.3	-1.7
362	Electrical industrial apparatus .....	150.4	127.0	-23.4	-1.7
12	Coal mining .....	77.2	54.0	-23.2	-3.5
261–263	Pulp, paper, and paperboard mills .....	198.8	176.0	-22.8	-1.2
208	Beverages .....	187.4	165.0	-22.4	-1.3
...	State and local government hospitals .....	970.0	948.0	-22.0	-2
291	Petroleum refining .....	84.6	65.0	-19.6	-2.6

NOTE: n.e.c. = not elsewhere classified.

constraints, employment in health practitioner offices is expected increase at a 3.4-percent annual rate, to 4.3 million jobs in 2010 from 3.1 million in 2000.<sup>5</sup>

*Social Services.* Industries within the social services sector, second only to the business services sector in terms of employment and output growth, are projected to maintain their relative importance. Social services employment is projected to increase 1.2 million from its 2000 level of 2.9 million. This

reflects an annual growth rate of 3.6 percent, more than double the projected employment growth for the overall economy. Output for this sector is expected to increase to \$171.4 billion in 2010, up from \$103.4 billion in 2000—an annual average rate of 5.2 percent.

The residential care industry—encompassing homes for the elderly, emotionally disabled, and the handicapped, in addition to orphanages, halfway homes, and rehabilitation centers—is also projected to experience rapid growth. The aging

population, the avoidance of costly nursing home or hospital care, and an effort to better integrate the physically and mentally disabled into society will result in the residential care industry expanding by 512,000 jobs to 1.3 million by 2010. The subsequent 5.0-percent annual employment growth rate marks this industry as the economy's second most rapidly growing industry. Output for this industry, projected to grow at 5.5 percent annually, is also expected to be among the economy's fastest.

With women's labor force participation rate rising in step with those of childbearing age, the childcare services industry has also emerged as one of the fastest sources of employment growth. Highlighting the progressive social services sector, childcare service employment increased by 6.2 percent, to 712,000 jobs in 2000, up from 391,000 jobs in 1990. As the demographic dynamics effecting this industry slow over the projected 2000–10 period, employment is expected to increase by 298,000, an average annual rate of 3.6 percent. Even though the growth rate pales in comparison to this industry's past, it is still more than double the rest of the economy.

*Government.* Public sector employment is expected to add almost 1.8 million jobs over the projected years, reaching 22.4 million in 2010. This represents an annual growth rate of 0.8 percent, slightly slower than the 1.2-percent increase experienced during the last decade. Federal Government employment is expected to decline from 2.8 million jobs in 2000 to 2.6 million in 2010. Due to budgetary constraints, the growing use of private contractors, and the transfer of some functions to State and local governments, the annual rate of decline is expected to slow from the 1.0 percent posted between 1990 and 2000 to 0.6 percent through 2010.

The tempering of Government employment at the Federal level is juxtaposed against the size and growth of State and local governments. State and local government employment, adding more than 1.9 million jobs and reaching 19.8 million by 2010, is expected to increase at a 1 percent average annual rate, slightly less than the 1.6-percent rate for all of nonfarm wage and salary employment. Driving this growth is the expected 1.1 million jobs from State and local government education, where more than half of all State and local government employment is found. Slower student enrollment rates at elementary and secondary schools are projected to be offset by increasing demand for post-secondary education, continued career and skills training, and new distance learning opportunities. In addition, proposed government initiatives at the early childhood level such as universal preschool, full-day kindergarten, and reduced class size will sustain this sector's strong growth.<sup>6</sup> By contrast, State and local government hospitals are expected to have large employment declines, shedding 22,000 jobs by the year 2010. These hospitals, providing many safety-net services, are projected to contract due to

privatization and budget constraints that temper this often inefficient healthcare provider.

## Goods-producing sector

*Agriculture.* Continued productivity growth, facilitated by more efficient farm machinery and equipment, is expected to be the main catalyst for increased agricultural production. Real output is projected to expand to \$315 billion in 2010, up from \$260 billion in 2000. However, total employment in agricultural production is projected to decline by 155,000, reaching 1.8 million in 2010. This trend is predominantly due to continued industry consolidation.<sup>7</sup> At the same time, employment in agricultural services—such as veterinary services, crop, livestock, and soil preparation, as well as farm labor and management services—is expected to increase at a steady 2.7-percent rate over the projected period, generating 477,000 new jobs. Increases in the pet and farm animal population, enhanced breeding and livestock management, and continued public health and disease control concerns are expected to raise employment in agricultural services.

*Mining.* Historical productivity increases are expected to continue this industry sector's dichotomy between output growth and employment decline. Wage and salary jobs, declining by 2.6 percent between 1990 and 2000, are projected to decrease by an additional 55,000. The mining industry as a whole is projected to experience the largest annual decline in employment for any major division, 1.1 percent. Conversely, output is expected to continue to increase to \$229.9 billion in 2010, up from \$212.1 billion in 2000—an annual average rate of approximately 0.8 percent. The coal mining industry exemplifies this divergence between output and employment growth. As more efficient and automated production methods require fewer workers, employment is projected to decline by 3.5 percent annually, while output is expected to grow to \$32.5 billion in 2010, from \$25.7 billion in 2000. Dampening the demand for this industry's output is stringent environmental regulations that mandate the reduction in sulfur emissions from coal combustion. However, coal is America's cheapest and most abundant fossil fuel, which will result in its continued reliance.

Accounting for the majority of this sector's employment, the oil and gas field services industry will be responsible for 188,000 jobs in 2010, roughly the same amount that existed in 2000. Output for this industry is expected to decline by an annual growth rate of 1.0 percent, decreasing production by \$2.9 billion. The gas liquids industry—including the related crude petroleum, natural gas—is projected to have one of the largest employment declines in the economy, from 129,000 jobs in 2000 to 100,000 jobs in 2010. Fluctuations in global oil and gas prices, potential access to Federal lands, strict environmental regulations that require cleaner burning fuels, foreign

competition, as well as new technology and extraction techniques, will significantly effect these industries.<sup>8</sup>

*Construction.* The construction industry, which is projected to add 825,000 jobs by 2010 at a 1.2-percent average growth rate, is the goods-producing sector's largest and fastest source of employment growth. Reaching an employment level of 7.5 million in 2010, the construction industry is also one of the economy's top-10 largest sources of employment growth. Real output is projected to increase by 2.6 percent a year to reach \$1.2 trillion by 2010. Even though this is slower than the growth rate for the overall economy, it represents a marginal acceleration of the 2.2-percent growth rate posted during the previous 1990–2000 period.

Nonresidential investment is projected to grow by 1.6 percent over the 2000–10 period. The current absorption of the 1980s excess industrial plant capacity, in addition to the delayed need to replace or upgrade these existing facilities, will bode well for this segment's future output growth. Therefore, industrial construction is expected to reverse its 2.2-percent rate of decline experienced over the 1990–2000 period, to attain a 1.6 percent growth rate over the projected period. The commercial buildings industry, however, is expected to slow its 2.4-percent historical growth rate to 2.1 percent. Technology enhancements will dampen demand for new commercial construction as nontraditional work and retail environments such as teleconferencing, home offices, telecommuting, and electronic shopping proliferate.

Residential construction, closely tied to demographic factors, will continue to grow at a 2.4-percent pace throughout the 2000–10 period. As baby-boomers swell the 45-to-64 age cohort, the demand for upgraded homes, second homes, and assisted living housing will increase. In addition, as their children, the echo boomers, augment the younger age groups, the demand for single-family housing and rental apartments should also increase.

*Manufacturing.* The overall picture for manufacturing is continued productivity-lead output growth, alongside a marginal employment increase. Steered by productivity gains and strong demand for durable goods by consumers, businesses, and exports, manufacturing output is expected to increase by \$1.7 trillion to reach \$6.3 trillion by 2010, up from its 2000 level. Rebounding from the 1990–2000 contraction of 607,000 manufacturing jobs, this sector is expected to exhibit modest growth of 0.3 percent. Manufacturing employment is projected to increase to 19.1 million jobs in 2010, up from 18.5 million in 2000. The projected employment uptick is due solely to the industries that manufacture durable goods. Their employment is expected to increase to an average annual increase of 0.6 percent over the 2000–10 projection period after virtually no change during the past 10 years. In addition, the rate of

employment decline in nondurable manufacturing is expected to be significantly slower over the projected period.

*Durable manufacturing.* Durable manufacturing is projected to gain 642,000 jobs over the 2000–10 period and reach a level of 11.8 million workers. Attributed to strong productivity gains during the 1990–2000 period, durable goods manufacturing gained only 29,000 jobs over this period, despite a 6.5-percent annual average growth rate for output. Real output for durable manufacturing is projected to increase by \$1.4 trillion to reach \$4.1 trillion by 2010, an increase from its 2000 level. Driven by the demand for computers, electronic components, motor vehicles, and communication equipment, output in durable goods manufacturing is expected to increase at a 4-percent annual average rate, a faster rate than that of the aggregate economy.

The largest durable goods industry in 2000 was the motor vehicles and equipment industry. One million wage and salary workers, or 9 percent of total durable manufacturing employment, were attributed to this industry. Output in 2000 amounted to \$433.1 billion, or 15.5 percent of total durable manufacturing output. However, this industry's employment dominance is expected to wane as companies continue to implement productivity-enhancing technologies such as robotics, computers, and factory automation. Employment in the motor vehicles and equipment industry is projected to increase annually at less than 1 percent to reach a relatively static 1.1 million jobs. Output, facilitated by healthy productivity gains, is projected to increase by \$231.8 billion to reach \$664.9 by 2010. The resulting 4.4-percent annual growth rate represents a slowdown from the 6.3-percent rate experienced over the last decade. Output growth will be limited due to the anticipated slowdown in the growth of the driving age population, competition from foreign producers, improvements in vehicle quality that extend longevity, and safety and environmental regulations that increase production costs.

The constrained output growth of motor vehicles and equipment is contrasted against the continued strong worldwide demand of the computer and office equipment industry. Projected to be the economy's fastest and largest source of output growth, this industry is expected to be the dominant source of durable goods manufacturing output, surpassing the motor vehicles and equipment industry by 2010. Real output is projected to grow at an annual rate of 14.8 percent to \$1.5 trillion in 2010, up from \$385.7 billion in 2000. (See table 7.) However, new technology and automated manufacturing processes are expected to lead employment in this industry to marginally contract by an annual average rate of 0.3 percent.

Real output for the electronic components and accessories industry is projected to increase by \$373.6 billion and reach \$759.9 billion by 2010—the economy's third largest source of projected output growth. The market for electronic



**Table 7. Industries with the largest output growth and declines, 2000–2010**

Standard Industrial Classification	Industry description	Billions of chained 1996 dollars	Change	Average annual rate of change	
		2000	2010	2000–2010	2000–2010
<b>Largest growth</b>					
357	Computer and office equipment .....	385.7	1,531.1	1,145.4	14.8
50,51	Wholesale trade .....	920.4	1,409.6	489.3	4.4
367	Electronic components and accessories .....	386.3	759.9	373.6	7.0
737	Computer and data processing services .....	278.2	600.8	322.6	8.0
...	Owner-occupied dwellings .....	631.2	943.4	312.2	4.1
52–57,59	Retail trade exc. eating and drinking places .....	926.1	1,236.6	310.6	2.9
481–2,489	Telephone communications and services .....	340.8	637.9	297.1	6.5
15,16,17	Construction .....	910.1	1,182.1	272.1	2.6
62	Security and commodity brokers .....	291.7	540.4	248.7	6.4
371	Motor vehicles and equipment .....	433.1	664.9	231.8	4.4
65	Real estate .....	653.0	822.4	169.4	2.3
60	Depository institutions.....	446.2	596.3	150.0	2.9
421,423	Trucking and courier services except air .....	237.3	358.6	121.3	4.2
732,733,738	Miscellaneous business services .....	197.7	312.7	115.0	4.7
58	Eating and drinking places .....	298.1	393.3	95.2	2.8
...	Royalties.....	96.2	191.2	95.0	7.1
751	Automotive rentals, without drivers .....	63.2	150.8	87.7	9.1
871	Engineering and architectural services .....	132.6	210.7	78.1	4.7
283	Drugs .....	98.6	170.5	72.0	5.6
366	Communications equipment .....	107.3	174.8	67.5	5.0
<b>Largest declines</b>					
203	Preserved fruits and vegetables .....	56.9	45.0	-11.9	-2.3
386	Photographic equipment and supplies .....	27.2	15.3	-11.9	-5.6
...	Federal general government.....	200.1	189.9	-10.2	-5
281,286	Industrial chemicals .....	100.4	94.0	-6.4	-7
331	Blast furnaces and basic steel products .....	78.6	73.0	-5.6	-7
355	Special industry machinery .....	43.7	39.8	-3.9	-9
311,315–317,319	Luggage, handbags, and leather products, n.e.c. ....	7.7	4.0	-3.7	-6.4
138	Oil and gas field services .....	30.7	27.7	-3.0	-1.0
88	Private households .....	14.7	13.3	-1.4	-1.0
...	Federal electric utilities .....	10.9	9.5	-1.4	-1.4
...	State and local government education .....	302.9	301.6	-1.2	0.0
271	Newspapers .....	43.8	43.0	-8	-2
373	Ship and boat building and repairing .....	17.6	17.0	-6	-4
793	Bowling centers .....	3.2	2.6	-6	-2.0
387	Watches, clocks, and parts .....	0.7	0.1	-6	-14.7
279	Service industries for the printing trade .....	5.2	4.8	-4	-9
313,314	Footwear, except rubber and plastic .....	2.5	2.2	-3	-1.5
762	Electrical repair shops .....	14.7	14.4	-3	-2
277	Greeting cards .....	4.2	4.1	-1	-3

NOTE: n.e.c. = not elsewhere classified.

components—and in particular, semiconductors, this industry's main product—will continue to be exemplary as they perform a vital function in nearly any new technology developed within the next decade. Its end products are used as components in the aggressively growing communications, computer, and semiconductor industries. The prominent role this industry plays in the economy is also highlighted by the fact that it is the second-largest employer in the durable goods manufacturer sector (behind motor vehicles and equipment). Despite the capital-intensive nature of this industry, employment is expected to continue its 1990–2000 growth rate of 1.6 percent, and add nearly 118,000 jobs over its 2000 level of 682,000. The communication equipment industry, producing a

wide variety of products from cellular phones, modems, and facsimile and answering machines to radio and cable television equipment and communications satellites, is another electronic-related manufacturer that is projected to experience healthy growth. Real output of the communications equipment industry is projected to expand annually by 5.0 percent to \$174.8 billion in 2010, up from \$107.3 billion in 2000.

*Nondurable manufacturing.* During the 1990s, employment in the nondurable goods manufacturing sector declined by 637,000 jobs to 7.3 million. Over the next 10 years, however, nondurable manufacturing is expected to essentially maintain its 2000 level, declining annually by only 0.1 percent. Alterna-

tively, real output rose to \$1.8 trillion in 2000 from \$1.5 trillion in 1990, and is projected to reach \$2.2 trillion in 2010. Nondurable manufacturing industries that are primarily responsible for this sector's output growth are drugs, plastic materials and synthetics, miscellaneous fabricated textile products, soaps, cleaners, toilet goods, and meat products. Employment in the drug industry is expected to increase by 75,000, totaling 390,000 jobs by 2010, while real output expands by \$71.9 billion, to \$170.5 billion. The resulting 5.6-percent annual output growth rate, one of the economy's fastest growing, is driven by a growing population demanding illness prevention products; the development of new lifestyle drugs aimed at enhancing one's self-confidence and physical appearance; and longer life expectancies of the elderly.

Real output for the plastics materials and synthetics industry is projected to increase by \$32.7 billion to reach \$101.4 billion by 2010. In 2000, this industry was responsible for 154,000 jobs. However, 2010 employment is expected to fall by 24,000, to 130,000. In addition to industry consolidations, increased automation, and outsourcing of production, the growth in plastics demand from a wide variety of manufacturing industries has contributed to both output growth and employment declines. Advanced polymers and plastics are being utilized for commodities production ranging from durable automobile body panels to prosthetic limbs. However, the fabrication of these products requires precise, computer-controlled production methods, and in turn is expected to lead to significant productivity gains.

Industries that are principally responsible for the weak employment growth in nondurable manufacturing are footwear—

except rubber and plastic—(−7.2 percent annually), luggage, handbags, and leather products (−3.2 percent annually), and apparel (−2.8 percent annually). Due to the labor-intensive nature of the apparel industry, domestic employment will continue to be vulnerable to import competition from low-wage countries. Employment growth will be further constrained as mergers and acquisitions among retail department stores—the main buyers of apparel products—forces this industry to consolidate in order to remain competitive. Apparel, therefore, is expected to lose 103,000 jobs by 2010—the economy's third largest source of declining employment. Imports are also projected to supply an increased share of footwear and luggage, handbags, and leather products. Employment in these industries is expected to be the first and fifth most rapidly declining in the economy. Combined, these two industries are projected to continue their historical employment contraction and decline to 44,000 jobs in 2010, down from nearly 72,000 jobs in 2000. Likewise, real output for the footwear and luggage, handbags, and leather products industries is expected to decline by 6.4 percent and 1.5 percent respectively, the second and sixth fastest in the economy.

INDUSTRY OUTPUT AND EMPLOYMENT PROJECTIONS are characterized by unvarying population and labor force growth, along with slowing growth in total employment and productivity-led output expansion. The service-producing sector continues to be the dominant employment generator in the economy, as has been the case historically. Business services and health services are projected to remain responsible for the majority of employment growth in the service-producing sector. □

## Notes

These projections were completed prior to the tragic events of September 11. BLS will continue to review its projections and, as the long-term economic consequences of September 11 become clearer, will incorporate these effects in subsequent releases of the industry outlook. (See box on page 3.)

<sup>1</sup> This article discusses gross duplicated output in real terms. Gross duplicated output measures not only GDP, or all final demand purchases of new goods and services, but also all new goods and services produced as intermediate goods for use in further production. Real output is measured as a 1996 based chain-weighted Fisher index. The real outputs of the industry do not add to their higher level aggregates because of chain weighting. For more information on chain-weighting, see Charles Steindel, "Chain-weighting: The New Approach to Measuring GDP," *Current Issues in Economics and Finance*, Federal Reserve Board of New York, December 1995, vol. 1 no. 9.

<sup>2</sup> For further discussion of these factors, see the articles by Howard N. Fullerton, Jr., pp. 21–38; and Betty Su, pp. 3–20, this issue.

<sup>3</sup> For further historical analysis, see Julie Hatch and Angie Clinton, "Job growth in the 1990s: a retrospect," *Monthly Labor Review*, December 2000, pp. 3–18.

<sup>4</sup> For further discussion on the effects of electronic commerce, see Daniel E. Hecker, "Employment impact of electronic business," *Monthly Labor Review*, May 2001, pp. 3–16.

<sup>5</sup> For further information on the healthcare industry, see David Ellis, *Technology and the Future of Healthcare: Preparing for the Next 30 Years* (Chicago, IL, Health Forum, Inc., 2000).

<sup>6</sup> For additional information, see Debra E. Gerald and William J. Hussar, "Projections of Education Statistics to 2010." U.S. Department of Education, National Center for Education Statistics (Washington, DC, 2000).

<sup>7</sup> For more information on consolidation trends effecting the agricultural industry, see James MacDonald, "Concentration and Competition in the U.S. Food and Agricultural Industries," *Agricultural Outlook*, U.S. Department of Agriculture, Economic Research Service (Washington, DC, May 1999), pp. 26–29.

<sup>8</sup> For further energy related information, see "Annual Energy Outlook 2001." U.S. Department of Energy, Energy Information Administration (Washington, DC, 2000).