

## Payroll employment grows in 2004

*In 2004, payroll employment had the strongest growth in 4 years and nearly reached its prerecession high; also, data from the Job Openings and Labor Turnover Survey indicate that the job openings rate trended up slightly throughout the year*

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**N**onfarm payroll employment, as measured by the Current Employment Statistics (CES) survey, increased by 2.1 million jobs in 2004, the first gain during a calendar year since 2000.<sup>1</sup> (See chart 1.) Payroll employment remained 97,000 below its previous peak reached in February 2001. Although the job openings rate, as measured by the Job Openings and Labor Turnover Survey<sup>2</sup> (JOLTS), did trend upward during 2004, it also remained below its prerecession level. Employers reported a small increase in hiring during the fourth quarter, and separations held steady throughout the year. (See chart 2.) Unlike the CES, which measures the net change in employment from month to month, the JOLTS measures the total number of hires and separations that occur during the month as well as the number of job openings that employers have at the end of the month.

The picture for employment growth by industry was somewhat mixed. (See table 1.) Many industries turned the corner and showed growth, while a few industries continued to cut jobs. With general economic conditions improving, employment recuperated in some of the more cyclical industries such as *machinery, trade, transportation, professional and business services, and leisure and hospitality*. The low interest rates continued to spur demand for new homes and remodeling throughout 2004, and attributed to increased employment in *construction* and several housing related industries within *financial activities, manufacturing, and retail trade*. Improved State and local government budgets helped boost employment in the public sector as well as *private education and health services*. Hurricanes,

which hit the southeastern United States, had some mixed effects on *construction* and *retail trade* late in the year. Also, because of ongoing structural change in the economy, some industries such as *telecommunications, textile mills, and apparel* continued to cut jobs.

### Cyclical impacts were mixed

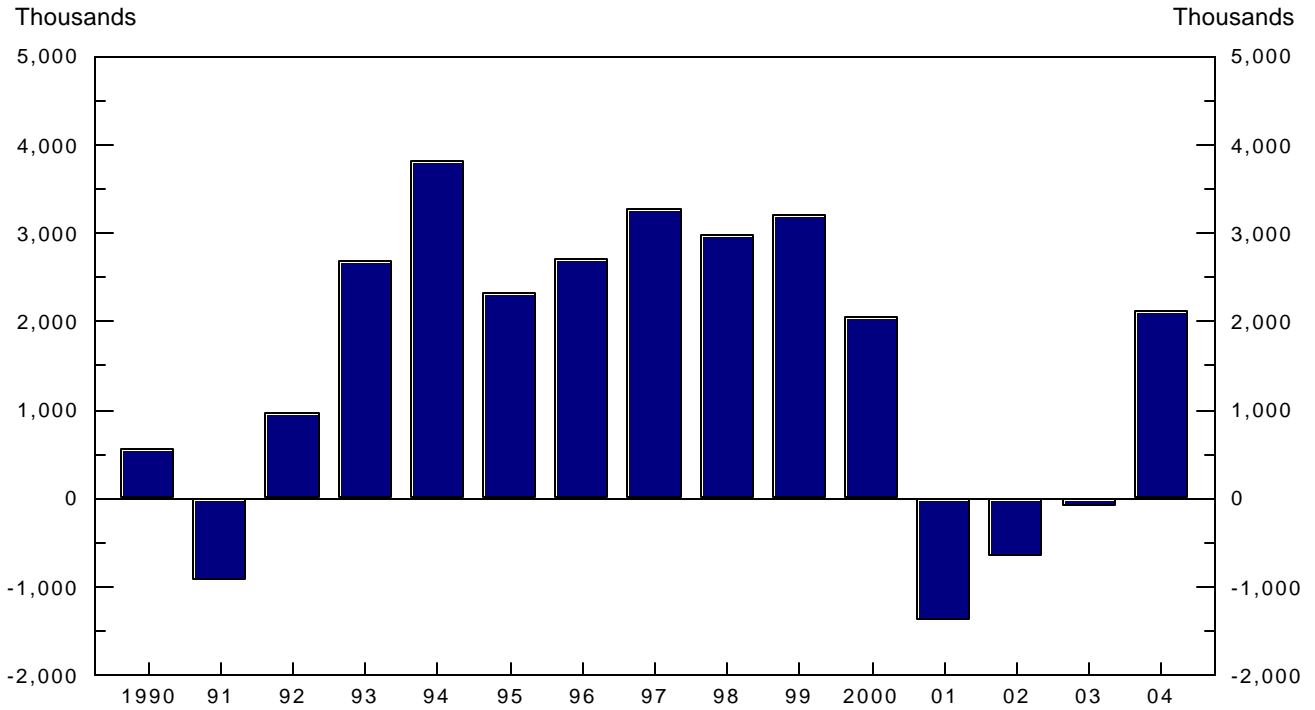
Since World War II, the 45 months beginning March 2001 to December 2004 mark the longest employment recovery period following a recession. At the end of that period, employment growth was just short of full recovery. (See chart 3. Note March 2001 is month zero.) By contrast, employment, on average, had expanded by about 5 percent above its prior peak, 45 months following all other post-World War II recessions.

Some indicators that tend to lead or coincide with overall employment growth were stronger in 2004, whereas other indicators had not yet recovered to prerecession levels. For example, real gross domestic product (GDP) grew by 4.4 percent throughout 2004—a little stronger than in 2003. GDP over those 2 years was mostly boosted by personal consumption expenditures.<sup>3</sup> Also, the Federal Reserve industrial production index grew by 4.3 percent in 2004—more than twice the growth rates seen in 2001 or 2002.<sup>4</sup> The strength in both of these indicators corresponded with the strong employment growth in 2004.

By comparison, the index of aggregate weekly hours for the private sector grew by 2.6 percent to 101.2 in 2004; however, it still remains below the October 2000 peak. Generally, the index of ag-

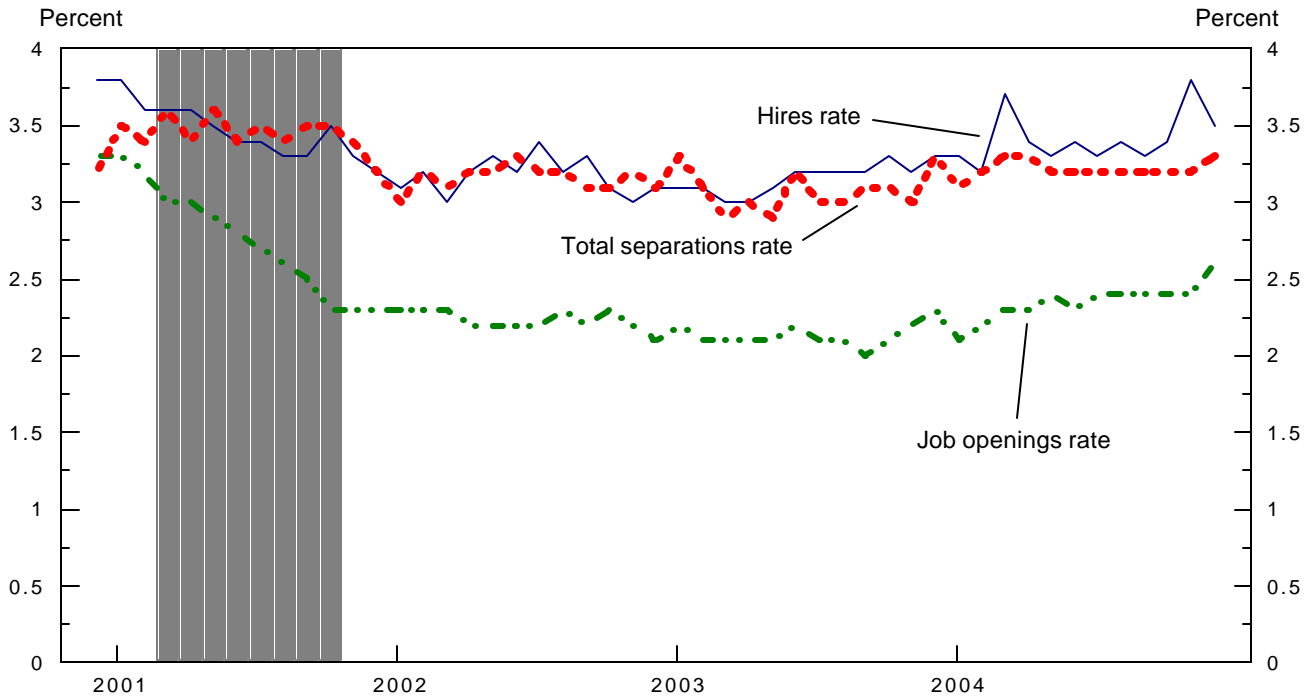
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**Chart 1. Over-the-year change in total nonfarm employment, 1990–2004, seasonally adjusted**



NOTE: The changes are calculated from fourth-quarter averages.  
 SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

**Chart 2. Total nonfarm job openings, hires, and total separations rates, December 2000–December 2004, seasonally adjusted**



NOTE: Shaded area denotes recession.  
 SOURCE: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

**Table 1. Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 2001-04**

[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter			
	2001	2002	2003	2004	Average change, 2001-03		2003-04	
					Number	Percent	Number	Percent
Total nonfarm .....	130,919	130,262	130,168	132,302	-376	-.3	2,134	1.6
Total private .....	109,600	108,676	108,614	110,600	-493	-.4	1,986	1.8
Goods-producing .....	23,224	22,258	21,684	22,000	-770	-3.3	316	1.5
Service-providing .....	107,694	108,004	108,483	110,302	395	.4	1,819	1.7
Private service-providing .....	86,375	86,418	86,930	88,600	278	.3	1,670	1.9
Natural resources and mining .....	600	576	574	599	-13	-2.2	25	4.4
Logging .....	72	70	69	67	-2	-2.8	-2	-2.9
Mining .....	528	506	505	532	-12	-2.3	27	5.3
Oil and gas extraction .....	124	121	119	124	-3	-2.4	5	4.2
Mining, except oil and gas .....	218	206	202	210	-8	-3.7	8	4.0
Coal mining .....	77	73	69	73	-4	-5.2	4	5.8
Support activities for mining .....	186	180	184	197	-1	-5.5	13	7.1
Construction .....	6,788	6,695	6,797	7,063	5	.1	266	3.9
Construction of buildings .....	1,585	1,576	1,583	1,670	-1	-.1	87	5.5
Residential building .....	787	817	858	920	36	4.6	62	7.2
Nonresidential building .....	798	759	726	750	-36	-4.5	24	3.3
Heavy and civil engineering construction .....	952	915	903	906	-25	-2.6	3	.3
Specialty trade contractors .....	4,251	4,204	4,310	4,487	30	.7	177	4.1
Residential specialty trade contractors .....	1,857	1,913	2,015	2,123	79	4.3	108	5.4
Nonresidential specialty trade contractors .....	2,394	2,291	2,296	2,364	-49	-2.0	68	3.0
Manufacturing .....	15,836	14,987	14,313	14,338	-762	-4.8	25	.2
Durable goods .....	9,901	9,290	8,855	8,957	-523	-5.3	102	1.2
Wood products .....	564	547	539	554	-13	-2.3	15	2.8
Nonmetallic mineral products .....	532	508	492	508	-20	-3.8	16	3.3
Primary metals .....	538	499	466	466	-36	-6.7	0	.0
Fabricated metal products .....	1,604	1,526	1,468	1,512	-68	-4.2	44	3.0
Machinery .....	1,297	1,199	1,132	1,147	-83	-6.4	15	1.3
Computer and electronic products .....	1,634	1,444	1,322	1,328	-156	-9.5	6	.5
Computer and peripheral equipment .....	267	243	215	210	-26	-9.7	-5	-2.3
Communications equipment .....	213	172	149	152	-32	-15.0	3	2.0
Semiconductors and electronic components .....	585	494	449	452	-68	-11.6	3	.7
Electrical equipment and appliances .....	527	482	450	446	-39	-7.4	-4	-.9
Transportation equipment .....	1,886	1,810	1,762	1,770	-62	-3.3	8	.5
Motor vehicles and parts .....	1,172	1,145	1,118	1,107	-27	-2.3	-11	-1.0
Furniture and related products .....	618	592	569	572	-25	-4.0	3	.5
Miscellaneous manufacturing .....	699	682	655	655	-22	-3.1	0	.0
Nondurable goods .....	5,936	5,697	5,459	5,381	-239	-4.0	-78	-1.4
Food manufacturing .....	1,541	1,520	1,512	1,495	-15	-1.0	-17	-1.1
Beverages and tobacco products .....	207	205	197	194	-5	-2.4	-3	-1.5
Textile mills .....	310	282	247	235	-32	-10.3	-12	-4.9
Textile product mills .....	199	192	174	178	-13	-6.5	4	2.3
Apparel .....	388	347	298	274	-45	-11.6	-24	-8.1
Leather and allied products .....	53	49	43	43	-5	-9.4	0	.0
Paper and paper products .....	563	537	505	498	-29	-5.2	-7	-1.4
Printing and related support activities .....	742	690	673	661	-35	-4.7	-12	-1.8
Petroleum and coal products .....	121	117	112	114	-5	-4.1	2	1.8
Chemicals .....	945	921	894	882	-26	-2.8	-12	-1.3
Plastics and rubber products .....	867	837	806	807	-31	-3.6	1	.1
Trade, transportation, and utilities .....	25,706	25,425	25,284	25,607	-211	-.8	323	1.3
Wholesale trade .....	5,710	5,637	5,597	5,679	-57	-1.0	82	1.5
Durable goods .....	3,070	2,988	2,923	2,962	-74	-2.4	39	1.3
Nondurable goods .....	2,022	2,010	1,997	2,011	-13	-.6	14	.7
Electronic markets and agents and brokers .....	617	639	676	707	30	4.9	31	4.6
Retail trade .....	15,138	14,975	14,935	15,072	-102	-.7	137	.9
Motor vehicle and parts dealers .....	1,864	1,885	1,891	1,901	14	.8	10	.5
Automobile dealers .....	1,234	1,259	1,258	1,247	12	1.0	-11	-.9
Furniture and home furnishings stores .....	536	544	554	564	9	1.7	10	1.8
Electronics and appliance stores .....	544	519	511	519	-17	-3.1	8	1.6
Building material and garden supply stores .....	1,162	1,180	1,196	1,240	17	1.5	44	3.7
Food and beverage stores .....	2,935	2,868	2,821	2,824	-57	-1.9	3	.1
Health and personal care stores .....	950	934	940	944	-5	-.5	4	.4
Gasoline stations .....	918	888	878	874	-20	-2.2	-4	-.5
Clothing and clothing accessories stores .....	1,304	1,318	1,316	1,378	6	.5	62	4.7
Sporting goods, hobby, book, and music stores .....	661	649	642	638	-10	-1.5	-4	-.6

**Table 1. Continued—Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 2001–04**

[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter			
	2001	2002	2003	2004	Average change, 2001–03		2003–04	
					Number	Percent	Number	Percent
General merchandise stores .....	2,833	2,801	2,841	2,848	4	.1	7	.2
Department stores .....	1,750	1,655	1,618	1,614	-66	-3.8	-4	-.2
Miscellaneous store retailers .....	980	952	921	919	-30	-3.1	-2	-.2
Nonstore retailers .....	452	438	423	423	-15	-3.3	0	.0
Transportation and warehousing .....	4,259	4,223	4,182	4,286	-39	-.9	104	2.5
Air transportation .....	577	566	514	514	-32	-5.5	0	.0
Rail transportation .....	224	215	221	225	-2	-.9	4	1.8
Water transportation .....	53	53	55	58	1	1.9	3	5.5
Truck transportation .....	1,363	1,334	1,331	1,360	-16	-1.2	29	2.2
Transit and ground passenger transportation .....	366	377	389	390	12	3.3	1	.3
Pipeline transportation .....	45	41	39	39	-3	-6.7	0	.0
Scenic and sightseeing transportation .....	28	25	26	26	-1	-3.6	0	.0
Support activities for transportation .....	528	525	521	544	-4	-.8	23	4.4
Couriers and messengers .....	572	561	552	563	-10	-1.7	11	2.0
Warehousing and storage .....	504	524	534	567	15	3.0	33	6.2
Utilities .....	599	591	571	571	-14	-2.3	0	.0
Information .....	3,536	3,319	3,151	3,130	-193	-5.5	-21	-.7
Publishing industries, except Internet .....	995	952	915	908	-40	-4.0	-7	-.8
Motion picture and sound recording industries .....	375	389	381	390	3	.8	9	2.4
Broadcasting, except Internet .....	342	332	322	330	-10	-2.9	8	2.5
Internet publishing and broadcasting .....	40	31	29	34	-6	-15.0	5	17.2
Telecommunications .....	1,269	1,141	1,063	1,029	-103	-8.1	-34	-3.2
ISPs, search portals, and data processing .....	469	426	392	390	-39	-8.3	-2	-.5
Other information services .....	45	48	50	51	3	6.7	1	2.0
Financial activities .....	7,836	7,892	7,989	8,109	77	1.0	120	1.5
Finance and insurance .....	5,804	5,859	5,927	6,003	62	1.1	76	1.3
Monetary authorities - central bank .....	23	23	22	21	-1	-4.3	-1	-4.5
Credit intermediation and related activities .....	2,636	2,732	2,805	2,860	85	3.2	55	2.0
Depository credit intermediation .....	1,721	1,738	1,750	1,773	15	.9	23	1.3
Commercial banking .....	1,273	1,278	1,279	1,293	3	.2	14	1.1
Securities, commodity contracts, investments .....	818	774	753	778	-33	-4.0	25	3.3
Insurance carriers and related activities .....	2,238	2,246	2,261	2,261	12	.5	0	.0
Funds, trusts, and other financial vehicles .....	89	84	85	84	-2	-2.2	-1	-1.2
Real estate and rental and leasing .....	2,032	2,033	2,062	2,106	15	.7	44	2.1
Real estate .....	1,345	1,367	1,391	1,434	23	1.7	43	3.1
Rental and leasing services .....	658	640	643	648	-8	-1.2	5	.8
Lessors of nonfinancial intangible assets .....	28	27	27	25	-1	-3.6	-2	-7.4
Professional and business services .....	16,129	15,920	16,100	16,633	-15	-.1	533	3.3
Professional and technical services .....	6,800	6,632	6,655	6,847	-73	-1.1	192	2.9
Legal services .....	1,102	1,128	1,153	1,165	26	2.4	12	1.0
Accounting and bookkeeping services .....	863	807	808	826	-28	-3.2	18	2.2
Architectural and engineering services .....	1,264	1,241	1,231	1,285	-17	-1.3	54	4.4
Computer systems design and related services .....	1,236	1,127	1,121	1,172	-58	-4.7	51	4.5
Management and technical consulting services .....	737	740	756	789	10	1.4	33	4.4
Management of companies and enterprises .....	1,750	1,689	1,698	1,721	-26	-1.5	23	1.4
Administrative and waste services .....	7,579	7,600	7,747	8,065	84	1.1	318	4.1
Administrative and support services .....	7,259	7,282	7,425	7,739	83	1.1	314	4.2
Employment services .....	3,225	3,247	3,356	3,576	66	2.0	220	6.6
Temporary help services .....	2,172	2,181	2,279	2,484	54	2.5	205	9.0
Business support services .....	775	751	754	756	-11	-1.4	2	.3
Services to buildings and dwellings .....	1,600	1,619	1,651	1,707	26	1.6	56	3.4
Waste management and remediation services .....	320	318	322	326	1	.3	4	1.2
Education and health services .....	15,869	16,368	16,716	17,110	424	2.7	394	2.4
Educational services .....	2,556	2,662	2,727	2,799	86	3.4	72	2.6
Health care and social assistance .....	13,313	13,706	13,990	14,311	339	2.5	321	2.3
Health care .....	11,328	11,666	11,898	12,152	285	2.5	254	2.1
Ambulatory health care services .....	4,520	4,704	4,840	5,007	160	3.5	167	3.5
Offices of physicians .....	1,934	1,984	2,020	2,079	43	2.2	59	2.9
Outpatient care centers .....	405	420	433	450	14	3.5	17	3.9
Home health care services .....	651	700	749	788	49	7.5	39	5.2
Hospitals .....	4,096	4,200	4,261	4,318	83	2.0	57	1.3
Nursing and residential care facilities .....	2,711	2,762	2,797	2,827	43	1.6	30	1.1
Nursing care facilities .....	1,561	1,579	1,577	1,576	8	.5	-1	-.1

**Table 1.** Continued—Employees on nonfarm payrolls by industry, seasonally adjusted quarterly averages, 2001–04

[Numbers in thousands]

Industry	Fourth quarter				Change, fourth quarter to fourth quarter			
	2001	2002	2003	2004	Average change, 2001–03		2003–04	
					Number	Percent	Number	Percent
Social assistance .....	1,985	2,040	2,091	2,159	53	2.7	68	3.3
Child day care services .....	728	746	756	776	14	1.9	20	2.6
Leisure and hospitality .....	11,985	12,096	12,288	12,569	152	1.3	281	2.3
Arts, entertainment, and recreation .....	1,818	1,813	1,826	1,824	4	.2	-2	-.1
Performing arts and spectator sports .....	379	375	373	362	-3	-.8	-11	-2.9
Museums, historical sites, zoos, and parks .....	116	114	115	117	-1	-.9	2	1.7
Amusements, gambling, and recreation .....	1,324	1,323	1,339	1,346	8	.6	7	.5
Accommodations and food services .....	10,166	10,283	10,462	10,745	148	1.5	283	2.7
Accommodations .....	1,788	1,800	1,775	1,813	-7	-.4	38	2.1
Food services and drinking places .....	8,379	8,482	8,687	8,932	154	1.8	245	2.8
Other services .....	5,315	5,397	5,401	5,441	43	.8	40	.7
Repair and maintenance .....	1,252	1,245	1,228	1,228	-12	-1.0	0	.0
Personal and laundry services .....	1,255	1,259	1,265	1,272	5	.4	7	.6
Membership associations and organizations .....	2,808	2,893	2,907	2,940	50	1.8	33	1.1
Government .....	21,319	21,586	21,553	21,702	117	.5	149	.7
Federal .....	2,756	2,781	2,736	2,719	-10	-.4	-17	-.6
Federal, except U.S. Postal Service .....	1,891	1,958	1,940	1,942	25	1.3	2	0.1
U.S. Postal Service .....	865	823	795	777	-35	-4.0	-18	-2.3
State government .....	4,977	5,020	4,987	5,014	5	.1	27	.5
State government education .....	2,174	2,242	2,254	2,273	40	1.8	19	.8
State government, excluding education .....	2,804	2,779	2,733	2,741	-36	-1.3	8	.3
Local government .....	13,585	13,785	13,831	13,969	123	.9	138	1.0
Local government education .....	7,559	7,693	7,705	7,809	73	1.0	104	1.3
Local government, excluding education .....	6,026	6,092	6,126	6,160	50	.8	34	.6

gregate weekly hours peaks just before or coincident with business cycle peaks. On average, recovery to prerecession levels has taken 31 months during prior downturns. However, 50 months after the October 2000 peak, the aggregate weekly hours index was still down by 2.7 percent.<sup>5</sup> Also, worker hours and overtime hours in manufacturing were essentially flat in 2004, with offsetting movements from month to month, revealing no real upward or downward trend. Since hitting a low point in the summer of 2003, the manufacturing workweek increased by four-tenths of an hour, but was more than an hour below the December 1997 peak of 42 hours. In addition, the year-to-year change in total private weekly earnings climbed in 2004, rising from 1.5 percent in the first quarter of the year to 2.9 percent in the fourth quarter.<sup>6</sup> Nevertheless, earnings growth in 2004 was still lower than that in the late 1990s and it did not quite keep up with the pace of inflation.

### Telltales and turning points

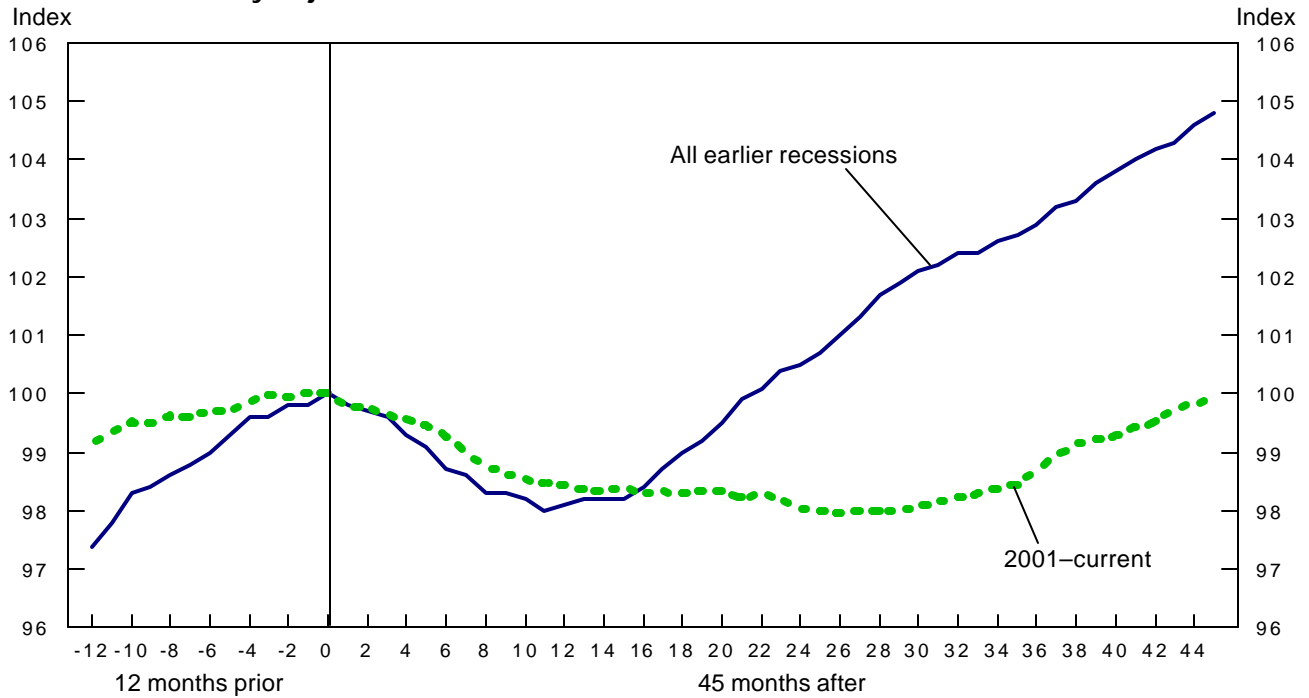
After the 2001 recession, employment growth in the *temporary help services* industry began its generally upward trend, adding 205,000 jobs in 2004. (See chart 4.) In this latest business cycle, this industry was the major contributor to total nonfarm employment growth. Temporary help services supplies labor to all industries, which often hire temporary workers to keep pace

with increased demand before hiring permanent workers. This practice ensures that increased demand is long lasting before permanent hires are made. Sales of temporary help services increased by 11.6 percentage points in 2004.<sup>7</sup> Throughout the year, the Federal Reserve Beige Book reported increased demand for temporary help. The demand for temporary help among industries was widespread—some districts reported increased temporary workers in light manufacturing, whereas others reported increased demand for clerical work, freight transportation, information technology, and healthcare.<sup>8</sup> Since hitting an employment low, the temporary help services industry recovered about two-thirds of the jobs lost from April 2000 to April 2003.

The *machinery manufacturing* industry is considered to be the manufacturing sector's gauge of health because it supplies most of its output to manufacturers. Also, job growth in machinery factories is analogous with increased capital investment.<sup>9</sup> As domestic demand for machinery firmed up, employment expanded by about 15,000 in 2004. With the low interest rates, U.S. manufacturers were able to increase capital expenditures.<sup>10</sup> However, another influence on this industry was the economic boom in China. U.S. exports of machinery to China grew by 56.9 percent from 2003 to 2004.<sup>11</sup>

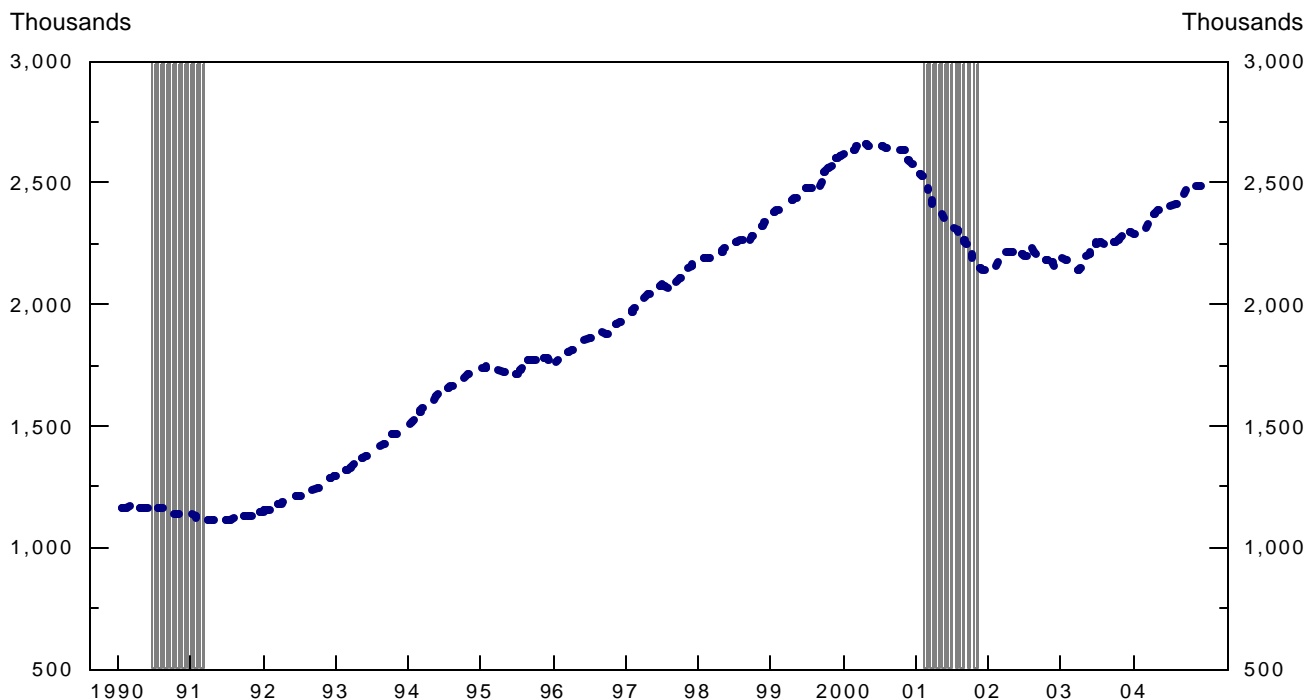
The *wholesale trade* sector showed improvement in 2004, adding 82,000 jobs. Most of these gains were concentrated in

**Chart 3. Nonfarm payroll employment, 12 months prior to and 45 months after the onset of recession, seasonally adjusted**



NOTE: Data are indexed to the start of the recession.  
SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

**Chart 4. Employment in temporary help services, January 1990–December 2004, seasonally adjusted**



NOTE: Shaded areas denote recessions.  
SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.

the durable goods industries, particularly those that sell goods produced by recovering manufacturing industries—machinery and supplies, lumber and construction supplies. During the latest business cycle, turning points in wholesale trade’s durable goods industries have occurred at about the same time as turning points in durable goods manufacturing. The following tabulation shows employment surrounding turning points in manufacturing and wholesale trade durable goods industries (Numbers are in thousands, seasonally adjusted):

	<i>Manufacturing durable goods</i>	<i>Wholesale trade durable goods</i>
Most recent peak .....	10,931 (July 2000)	3,271.4 (April 2000)
Most recent trough .....	8,850 (October 2003)	2,919.5 (September 2003)
Percent change from peak to trough.....	-19.0	-10.8
December 2004 .....	8,957	2,964.5
Percent change from trough to December 2004 .....	1.2	1.5

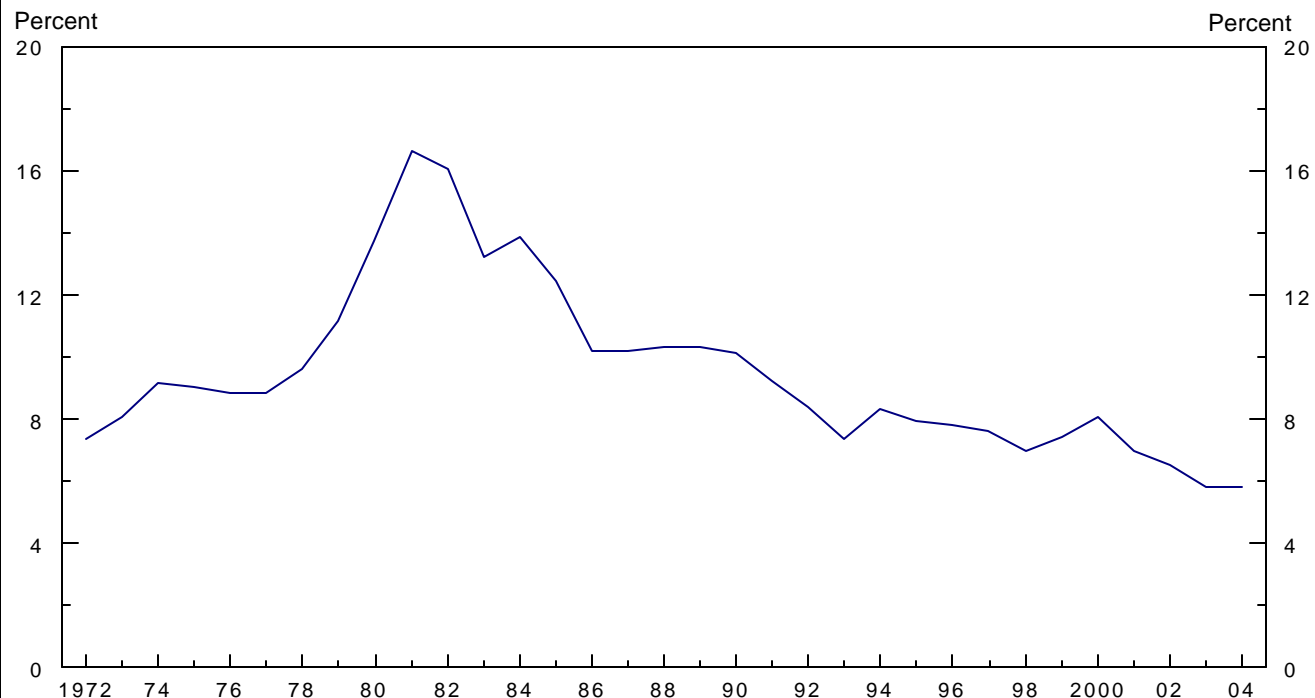
Activity in *truck transportation* picked up in 2004, and trucking employment in the latest business cycle coincided with manufacturing improvement. The truck tonnage index in 2004 was above the levels for 2002 and 2003.<sup>12</sup> This index grew

quite rapidly through the first half of the year, but in the latter half of 2004, it was essentially flat. Domestically, as the manufacturing sector improved, more trucks were needed to transport goods. As the economy has become more global, shipping volume at U.S. ports has grown also.<sup>13</sup> China’s economic expansion resulted in even higher volumes of goods transporting through U.S. ports in 2004. Although demand for truckdrivers rose, low pay, long hours, and increased regulations kept some workers from entering the market, causing hiring difficulties for employers.<sup>14</sup> In addition, the price of oil rose to more than \$50 per barrel in late 2004, driving fuel prices up.<sup>15</sup> Yet truck transportation employers were successful at passing the higher fuel costs on to their customers.<sup>16</sup> With moderate improvement in the manufacturing sector and the high volume of port traffic, truck transportation added nearly 30,000 jobs over the year, despite hiring difficulties and higher fuel costs.

**Effects of the low interest rates**

Mortgage-sensitive industries continued to spur employment growth in 2004. Long-term interest rates remained historically low throughout the year (chart 5), and sustained activity in financial activities, construction, and other construction-related industries.

**Chart 5. 30-year fixed mortgage rates, 1972–2004, not seasonally adjusted**



NOTE: The data here are the contract rate of 30-year conventional fixed-rate mortgages, 12 months ending December.  
 SOURCE: Federal Home Mortgage Corporation.

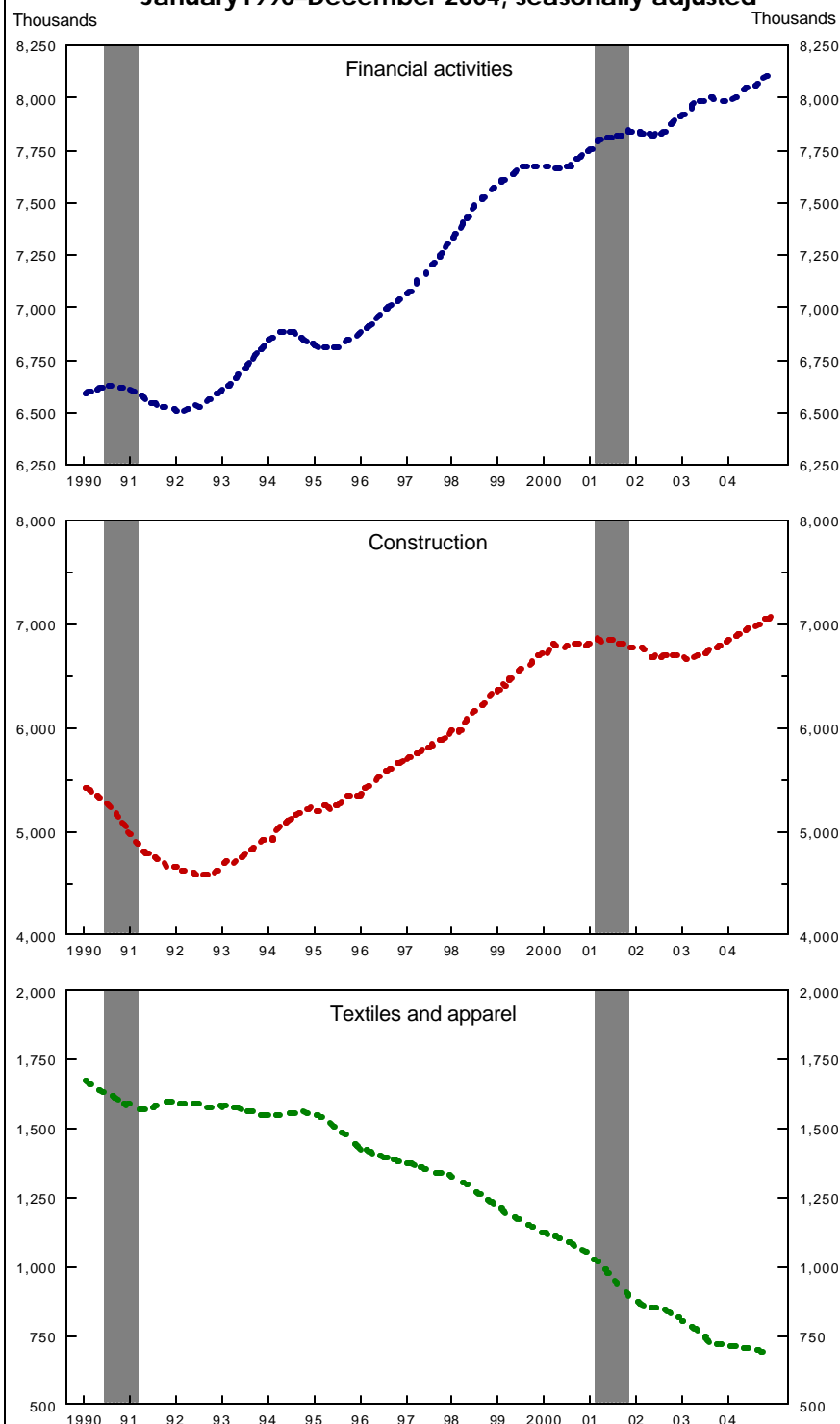
Job growth in *financial activities* held steady at about the same pace as that in 2003. (See chart 6.) Much of the employment gains came from *credit intermediation and related services* and *real estate*. The credit intermediation industry is involved with lending funds or facilitating lending—most mortgage and refinance activity is classified in this industry. As the interest rate remained low, demand for all types of lending increased, including home buying, home improvements, and refinancing activity. Refinance activity, which had been the boon to this industry in 2003, stayed at healthy levels throughout 2004 and accounted for roughly 50 percent of all mortgage-related activity.<sup>17</sup>

The *real estate* industry also benefited from low interest rates, which enabled first-time and younger buyers to enter the market. Since 2002, the homeownership rate of people under 35 has grown from 41 percent to 43.3 percent.<sup>18</sup> With the flurry of activity in the housing market, extra staff was needed in the real estate industry, which added about 43,000 jobs over the year.

Despite a slowdown signaled by indicators for new residential building near the end of 2004, *construction* employment remained strong, growing by 266,000. (See chart 6.) Real private residential construction expenditures increased by 5.7 percent—much reduced from the expenditure growth in 2003.<sup>19</sup> The ratio of housing starts to completions was a little softer in 2004, in other words, starts rose relatively slower than completions, implying less demand.<sup>20</sup> Though employment in construction was strong throughout 2004, most of the job gains came in the first half of the year; employment growth slowed in the third quarter, but picked up again in the fourth quarter. Regardless of the softer indicators, 2004 was the best year for construction since 1999.

Within the construction of buildings sector, employment in *residential building* gained momentum in 2004, growing by 62,000 or 7.2 percent. After suffering losses in 2002 and 2003, employment in

**Chart 6. Employment in selected industries, January 1990–December 2004, seasonally adjusted**



NOTE: Shaded areas denote recessions. Textiles and apparel is the sum of textile mills (NAICS 313), textile product mills (NAICS 314), and apparel (NAICS 315).

SOURCE: Bureau of Labor Statistics, Current Employment Statistics survey.



*nonresidential building* began to turn the corner in 2004, adding 24,000 jobs. While real nonresidential construction expenditures have fallen by 6 percent since 2002, real construction expenditures for healthcare have grown by 6.5 percent, contributing some strength to nonresidential building employment.<sup>21</sup> *Specialty trade contractors*, however, was the main source of strength in construction—adding more than 175,000 jobs in 2004. Much of the work done by specialty trade contractors is contracted through builders. A large portion of the strength within specialty trades was in *building equipment contractors*, which added about 60,000 jobs. Employment in building equipment contractors makes up about 25 percent of all construction employment and includes firms that install or service equipment that forms part of a building’s mechanical systems, such as electrical, heating and cooling, and plumbing systems.<sup>22</sup>

As demand for housing stayed high, demand for construction materials was also high. Manufacturers of *fabricated metal products*, *nonmetallic mineral products*, and *wood products* all tend to sell much of their output for construction projects. The following tabulation shows value of shipments for those industries from December 2003 to December 2004<sup>23</sup>:

<i>Industry</i>	<i>Change in million of dollars</i>	<i>Percent change</i>
Wood products .....	\$1,218	14.6
Nonmetallic mineral products .....	746	10.2
Fabricated metal products .....	2,317	11.0

Combined, these three industries accounted for nearly all the employment gains in manufacturing. *Fabricated metal products* employment increased by 44,000 in 2004. Much of this growth was in the *architectural and structural metals* and *machine shops and threaded tools* component industries. The *non-metallic mineral products* industry, which mainly provides cement and concrete to the construction industry added 16,000 jobs. Because China’s construction boom created a short supply of cement, many countries that traditionally shipped cement to the United States instead shipped cement to China. This caused U.S. cement-making firms to expand their payrolls to meet the domestic demand for cement and concrete.<sup>24</sup> Also, *wood products* firms, which manufacture items such as lumber, plywood, wood trusses, and flooring, added 15,000 jobs in 2004.

While the construction boom continued, activity began to pick up in the *building material and garden supply* industry. Retail sales in this industry grew 14.5 percent over 2004.<sup>25</sup> Anecdotal evidence suggests that many construction contractors bought their materials from establishments in this industry. Recent homebuyers also helped sales in the building material and garden supply industry because they spend an average of \$8,900 on home-related items, in the year following a new home purchase. In addition, buyers of existing homes spend, on average, \$3,766 in the year following the home

purchase.<sup>26</sup> Much like the construction sector, employment growth in building material and garden supply stores was quite strong in the first two quarters of 2004, eased a bit in the third quarter and firmed up in the final quarter. Over the year, building material and garden supply stores added 44,000 jobs.

### State and local budgets improve

Weak government budgets were a problem for the public sector throughout 2003. However, tax revenues tend to lag the business cycle, and as the economy continued to improve in 2004, so did government budgets. Tax receipts for 45 out of the 50 States either exceeded or met the budgeted tax collection amounts in the 2004 fiscal year. Although spending by State governments increased in 2004, its spending growth was still below the long-term average.<sup>27</sup> Property taxes, an important source of revenue for local governments because it tends to be less business-cycle dependent, exceeded budget expectations in 2004.<sup>28</sup> Some local governments benefited from rising property values without raising the real property tax rates because they could assess houses at higher values. This in turn allowed localities to collect more tax revenue, and thus hire more workers.

The public sector added 149,000 jobs in 2004, mostly in local government education. With local and State budget improvement, school systems hired more teachers and other staff. Employment gains in *State and local government* were partly offset by declines in the *U.S. Postal Service*, which continued to cut jobs through attrition and increased automation. Although the job growth in government was improved from a 33,000 job loss in 2003, the hiring pace fell short of the prior 5-year average<sup>29</sup> of 367,200 jobs gained per year.<sup>30</sup>

A deceleration in real government spending on healthcare had an impact on employment in *health care*, which increased by 254,000 or 2.1 percent—down from an average growth rate of 2.8 percent for the prior 3 years.<sup>31</sup> As the U.S. population ages, the need for health care increases, as those aged 65 and older spend about 4 times as much on personal health as persons under age 65.<sup>32</sup> As the need for more health care services continues to rise, spending cuts may have muted the employment growth among health care industries.

Hiring in private education (*educational services*) was sluggish throughout 2004 when compared with strong hiring throughout the late 1990s. According to projections from the National Center for Education Statistics, enrollment in private institutions increased at relatively low rates in the fall of 2004.<sup>33</sup> Low enrollment may have been influenced by higher tuition. College tuition increases in 2004, although smaller than the increases in 2003, still were very high by historical standards.<sup>34</sup> Over 2004, employment in private education grew by about 72,000 or 2.6 percent, a slight improvement from 2003, but reduced from the average growth rate of 4.0 percent between 1998–2002.

## Hurricanes had mixed effects on growth

Four large hurricanes hit the southeastern United States in August and September 2004. Florida along with other locales were declared Federal disaster areas, and such destruction and bad weather likely subdued employment growth. However, during the aftermath of these hurricanes, job growth increased in *construction* and *home building and garden supply stores* resulting from repairs and clean-up efforts. After the hurricanes, people needed to make repairs to their homes and businesses, either by hiring a professional to do the work or by doing the work themselves. The precise impact of the clean-up efforts cannot be separated from the overall employment change, but seemed to have had a positive effect on construction and building material and garden supply stores.<sup>35</sup>

The bad weather also depressed retail sales and forced some retail stores to close for repairs. *General merchandise stores* were hit particularly hard. During the third quarter of 2004, this industry lost 10,000 jobs. Oil extraction platforms in the Gulf of Mexico were shut down due to hurricanes and workers were evacuated to shore.<sup>36</sup> Expectations for severe oil shortages exacerbated already high gas prices, which swelled to record highs.<sup>37</sup> High gas prices affected sales at *discount department stores* more because most of their clientele have a lower than average income.<sup>38</sup> The additional gas expense took up a disproportionate amount of their budgets, leaving less to spend at retail stores.<sup>39</sup>

## Economic restructuring hurts some industries

As 2004 ended, many industries finished the year much improved; however, there were still a few industries that continued to suffer from structural changes in the economy. *Telecommunications*, a victim of the high-tech bubble burst, has been plagued with over-capacity because the industry had expected the high demand of the 1990s to continue. Since hitting an employment peak in March 2001, this industry shed nearly 300,000 jobs. Although job losses slowed in 2004, most of the job losses resulted from intense competition among the *wired telecommunications carriers*. Also, the convenience of cellular phones pulled customers from wired to wireless service, and wired carriers were less able to charge premiums on long distance calls as they had in the past.<sup>40</sup>

Employment in *textile mills* and *apparel* continued the downward trend since at least 1990. (See chart 6.) Competition from countries with lower wages and other costs for clothing and textiles overseas seem to have pulled employment out of the United States. A wide trade gap did not help the industry either. For example, for every one dollar's worth of textiles and apparel exported by U.S. manufacturers in 2004, \$5.66 worth of textiles and apparel were imported to the United States.<sup>41</sup>

## Job openings and labor turnover

The JOLTS and CES surveys both provide a picture of labor market health, but the surveys are quite dissimilar in what they measure. The CES survey measures the number of payroll jobs held at the time of the reference period—the pay period that includes the 12<sup>th</sup> of the month. The JOLTS collects data from a sample of approximately 16,000 business establishments. It measures the number of openings at these establishments as of the last business day of the reference month as well as the number of separations and hires from their payrolls over the entire month. The JOLTS also provides data on separations by type, that is, voluntary quits, involuntary layoffs and discharges, and “other separations.”

Hires and separations data from JOLTS give a sense of the amount of churn in the labor market. The monthly hires rate averaged 3.4 percent in 2004, translating to 54.0 million hires for the year. Total separations averaged 3.2 percent in 2004, translating to 50.9 million separations for the year. (See chart 2.)

There are “high turnover” industries that experience an exceptional amount of churn.<sup>42</sup> Not surprisingly, in 2004, the highest hires and total separations rates (unadjusted) were regularly in the *construction; retail trade; professional and business services; arts, entertainment, and recreation; and accommodations and food services* industries. These are all industries in which a large number of people move in and out of the jobs every month. The hires and total separations rates were consistently higher for the south region.

*Job openings.* The job openings rate for the United States exhibited a slight upward trend through the year, starting at 2.1 percent and ending at 2.6 percent. Industries unable to hire enough workers to fill open positions are those industries in which the job openings rate is higher than the hires rate. Two industries that regularly needed more workers in 2004 than they could hire were *finance and insurance*, reflecting employment opportunities attributed to continued low interest rates and the strong housing market, and *health care and social assistance*, reflecting the need for health care workers.

The job openings rate varies greatly across industries. The highest job openings rates (unadjusted) in 2004 were in professional and business services; health care and social assistance; and accommodations and food services. The job openings rate for the private economy trended upward through-out the year, and two industrial sectors—professional and business services; and *leisure and hospitality*—were largely responsible for that growth. All the other sectors as well as *government* indicated little movement in the job openings rate during 2004.

The *trade, transportation, and utilities* sector displayed an upward trend in the job openings rate, moving from a 1.9-percent monthly average in the first quarter to a 2.1-percent monthly average in the fourth quarter. This increase mirrors the

increase in truck transportation employment measured by the CES survey.

The professional and business services sector job openings rate also increased, averaging 3.2 percent for the first half of the year and 3.6 percent for the second half of the year. The increase in this industry corresponds with the CES-measured employment increase in the temporary help industry, which is included in the professional and business services sector. The strengths shown by both JOLTS and CES data support the theory that as the economy continued to recover, businesses first utilize staffing agency employees before permanently hiring workers into their own businesses.

The leisure and hospitality sector also followed an upward trend in job openings, with the average monthly rate highest during the fourth quarter.

Job openings also varied greatly by region. The south region regularly reported higher job openings rates than the other regions, and after the first quarter, the west region also had a higher job openings rate than the northeast and midwest regions. In fact, the northeast and midwest experienced relatively flat job openings rates.

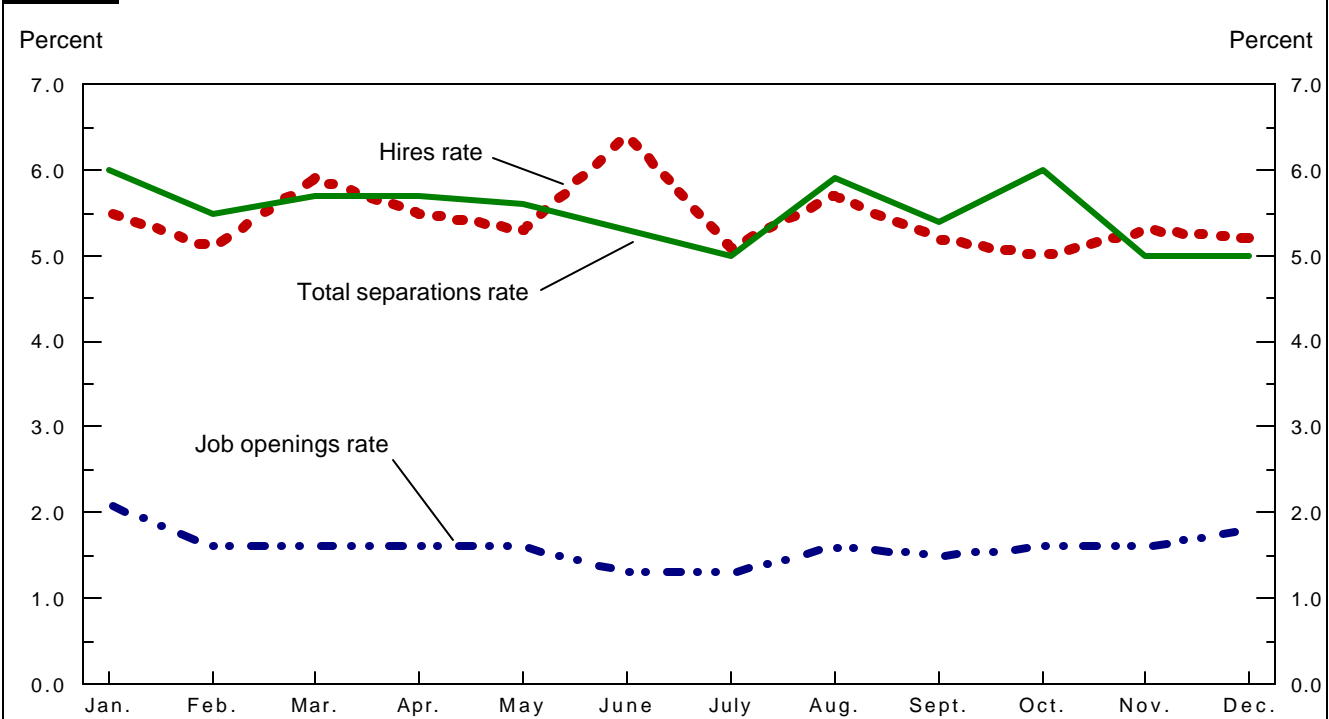
*Hires rose in the fourth quarter in 2004.* The hires rate was flat for most of 2004, averaging 3.3 or 3.4 percent per month

for each of the first three quarters. The hires rate rose in the fourth quarter, averaging 3.6 per month. (See chart 2.) The only industries that experienced significant movement were construction (which increased hiring between the first and second quarters and then decreased hiring in the third and fourth quarters) and professional and business services (which rose in the fourth quarter). (See chart 7.) For the rest of the industries and for the regions, the hires rate varied only slightly throughout the year. Hires were highest for the south and west regions.

*Separations were flat.* The total separations rate remained flat throughout 2004 (chart 2) for the public and private sectors, and for all but one industry. Only construction showed changes in separations throughout the year with separations rates declining through the year. (See chart 7.)

The components of total separations—quits, layoffs and discharges, and other separations—provide additional information about the labor market. Throughout 2004, the quits rate remained flat for the total U.S. labor market, the private sector, and for government. As with total separations, construction was the only sector with a difference in quits across quarters—the third quarter had a slight decline in quits followed by a rise in quits in the fourth quarter. (See chart 7.)

**Chart 7. Job openings, hires, and total separations rates in construction, 2004, seasonally adjusted**



SOURCE: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

Quits as a percentage of total separations can help gauge the health of the labor market. When quits account for a larger portion of the total separations, they indicate increased voluntary employee flow between jobs and an improved job market. The percentage of quits had declined from a high of 63 percent in December 2000 (the beginning of the JOLTS series) to a low of 50 percent in December 2003. In 2004, the percentage of quits followed a generally upward trend, starting at 52 percent in January, and ending the year at 56 percent. However, the percentage of quits is still far from prerecession levels. (See chart 8.)

Quits account for the largest percentage of total separations in the south region (ranging from 55 percent to 64 percent in 2004) and the lowest percentage of total separations in the northeast region (ranging from 40 percent to 51 percent in 2004), indicating a looser job market in the south and a tighter one in the northeast. (See chart 9.)

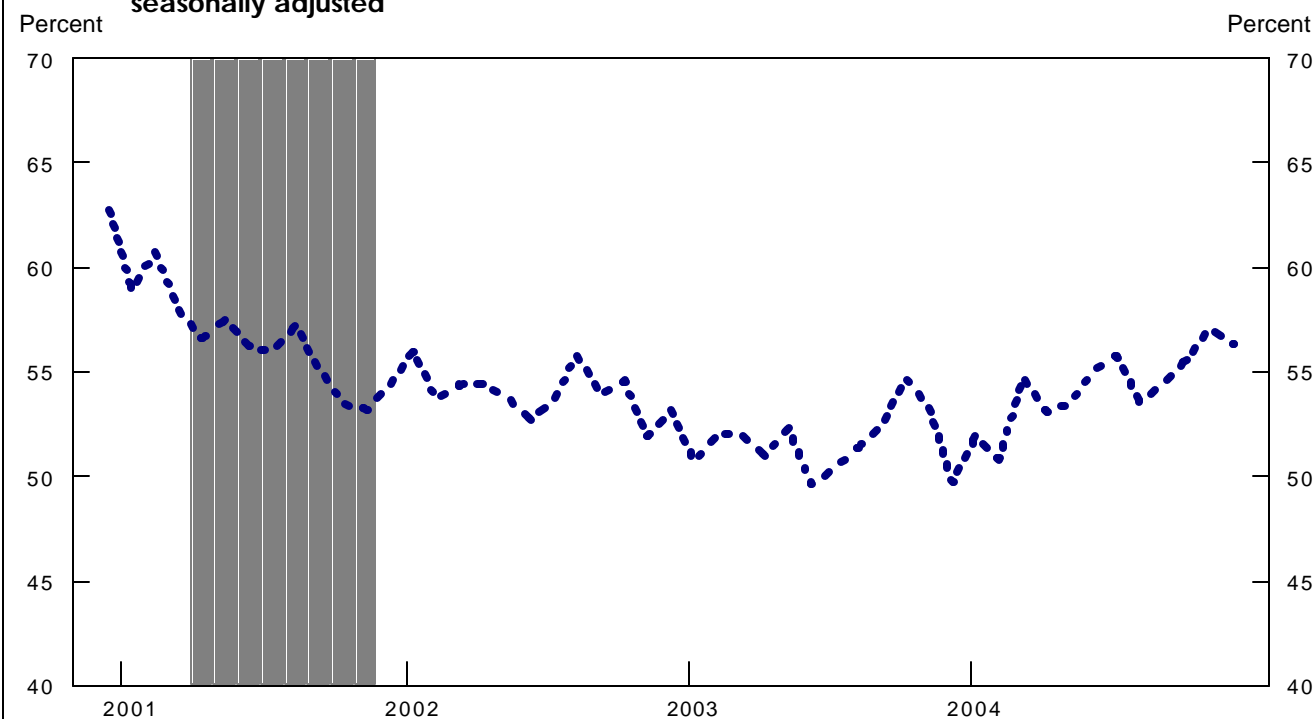
The layoffs and discharges, or involuntary separations, rate did not vary much through 2004 at the total nonfarm level, but did vary by industry. The layoffs and discharges rate was regularly higher in the construction; professional

and business services; arts, entertainment, and recreation; and accommodations and food services industries than in other industries.

The remainder of the separations, such as retirements and employees on disability, are lumped into the “other separations” category in JOLTS. Within this grouping, *natural resources and mining* regularly had higher rates for other separations than other industries did in 2004.

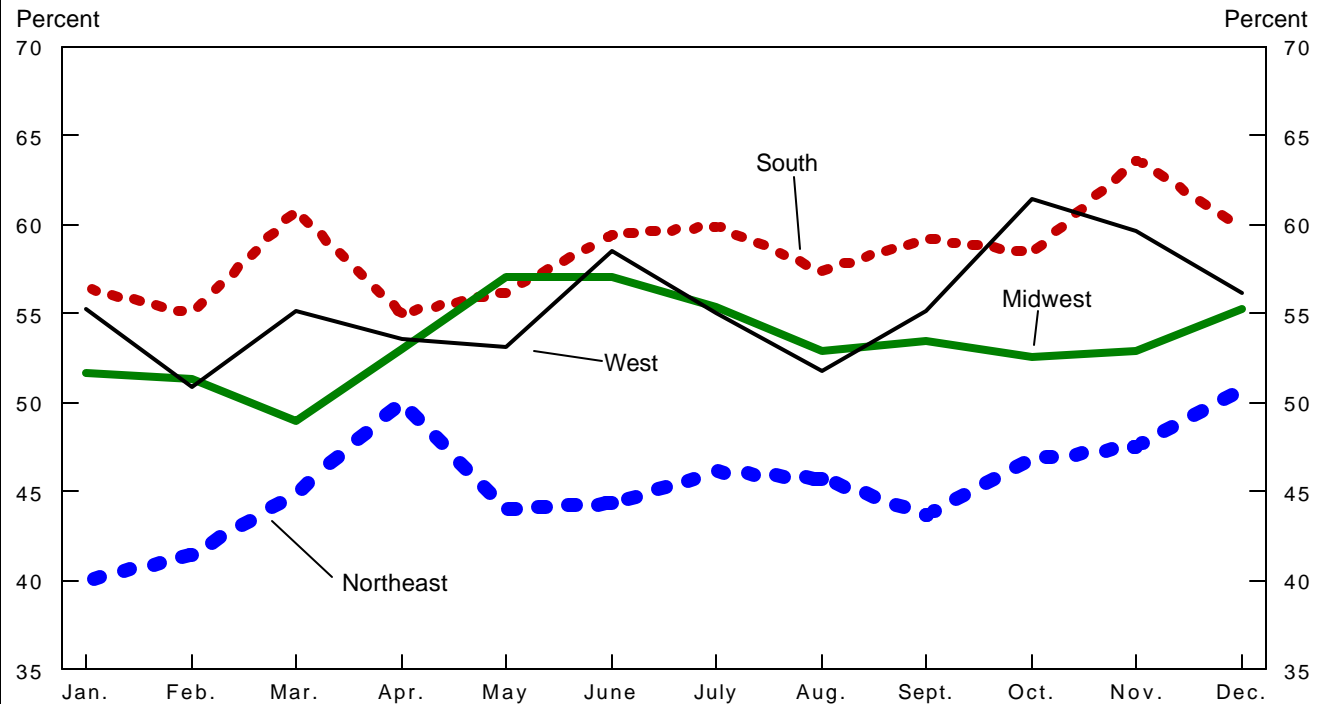
AS 2004 CONCLUDED, employment, although much improved from previous years, still had not recovered completely from the recession. As this article showed, various events during the year caused many industries to react differently. The low interest rates stimulated most of the activity within the economy. Hurricanes that hit the southeastern portion of the United States had mixed effects on employment. Improved government budgets attributed to employment growth in parts of the public sector. Long-term structural changes in the economy continued to cause a few industries to shed jobs. Although slight, JOLTS hires ticked upward at year’s-end, and job openings in selected industries grew in 2004. □

**Chart 8. Quits as a percentage of total separations in total nonfarm employment, 2001–04, seasonally adjusted**



NOTE: Shaded area denotes recession.

SOURCE: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

**Chart 9. Quits as a percentage of total separations, by region, 2004, seasonally adjusted**

SOURCE: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

## Notes

<sup>1</sup> The Current Employment Statistics (CES) program surveys more than 160,000 nonfarm businesses representing about 400,000 establishments monthly. For more information on the program's concepts and methodology, see *BLS Handbook of Methods*, Bulletin 2414 (Bureau of Labor Statistics, September 1992). CES data are available also online at [www.bls.gov/ces/](http://www.bls.gov/ces/). The CES data used in this article are seasonally adjusted, unless otherwise noted.

<sup>2</sup> The data for the Job Openings and Labor Turnover Survey (JOLTS) are collected and compiled monthly from a sample of business establishments by the Bureau of Labor Statistics. JOLTS data are available online at [www.bls.gov/jlt/](http://www.bls.gov/jlt/).

<sup>3</sup> Data on real gross domestic product come from the U.S. Bureau of Economic Analysis, on the Internet at [www.bea.gov](http://www.bea.gov).

<sup>4</sup> These data reflect the percent change from December 2003 to December 2004.

<sup>5</sup> For analysis of the index of aggregate hours, the 1980 recession was excluded because the series had not fully recovered before the 1981 recession started. CES estimates of hours and earnings are for production workers in natural resources and mining and manufacturing; construction workers in construction, and nonsupervisory workers in the service-providing industries. These groups account for approximately four-fifths of total employment on private nonfarm payrolls.

<sup>6</sup> These percentage changes are calculated by taking the year-to-year percentage change in average weekly earnings. The first quarter year-to-year change is represented by March, and the fourth quarter year-to-year change is represented by December.

<sup>7</sup> Data on temporary help sales are provided by the American Staffing Association. The data in this article are the percentage change from the fourth quarter of 2003 to the third quarter of 2004.

<sup>8</sup> "Summary of Commentary on Current Economic Conditions," *The Beige Book* (Federal Reserve Board, Mar. 3; Apr. 21; June 16; July 28; Sept. 8; and Dec. 1, 2004) On the Internet at: [federalreserve.gov/FOMC/BeigeBook/2004](http://federalreserve.gov/FOMC/BeigeBook/2004).

<sup>9</sup> Real domestic investment in equipment and software was up by 13.5 percent in 2004. See the GDP release (U.S. Bureau of Economic Analysis), Mar. 25, 2005, table1, on the Internet at [www.bea.gov/beat/rels.htm](http://www.bea.gov/beat/rels.htm).

<sup>10</sup> Plant and equipment of manufacturers increased 1.2 percent in 2004 (through third quarter) and declined by 0.6 percent in 2003. These data come from the Census Bureau's Quarterly Financial Reports for Manufacturing, Mining and Trade Corporations, on the Internet at [www.census.gov/csd/qfr/qfr043mg.pdf](http://www.census.gov/csd/qfr/qfr043mg.pdf).

<sup>11</sup> U.S. export data comes from the Foreign Trade Statistics Division of the Census Bureau. The data reported here are the 2003 year-to-date exports in dollars through December compared to the 2004 year-to-date exports through December.

<sup>12</sup> Truck tonnage is the number of tons of goods shipped on trucks. The data come from the American Trucking Association, on the Internet at [www.truckline.org](http://www.truckline.org).

<sup>13</sup> "Manufacturers Cope With Costs of Strained Global Supply Lines," *The Wall Street Journal*, Dec. 8, 2004.

<sup>14</sup> Lawrence H. Kaufman, "Expect smoother traffic, higher rates," *Journal of Commerce*, Jan. 17, 2005.

<sup>15</sup> Using data for the first day of the month, oil prices per gallon reached \$53.13 on Oct. 1, 2004. Data on oil prices can be found through the St. Louis Federal Reserve Website at <http://research.stlouisfed.org/fred2/data/OILPRICE.txt>. The source listed is the Dow Jones Energy Service.

<sup>16</sup> Federal Reserve *Beige Book*, June 16, 2004.

<sup>17</sup> Data on refinance activity can be found at the Mortgage Bankers Association. [www.mortgagebankers.org/marketdata/index.asp](http://www.mortgagebankers.org/marketdata/index.asp).

<sup>18</sup> Data on homeownership comes from the U.S. Census Bureau, Housing and Household Economic Statistics Division. This article uses data for the first quarter of 2002 and the fourth quarter of 2004. On the Internet at [www.census.gov/hhes/www/housing/hvs/hvs.html](http://www.census.gov/hhes/www/housing/hvs/hvs.html).

<sup>19</sup> Real construction expenditures data are from the Bureau of Economic Analysis, and are in chained dollars. Real construction expenditures in 2003 grew by 12 percent. See table 1.1.6 on the Internet at [www.bea.gov/bea/dn/nipaweb/SelectTable.asp?Selected=Y](http://www.bea.gov/bea/dn/nipaweb/SelectTable.asp?Selected=Y).

<sup>20</sup> Housing starts and completions data are from the Census Bureau, available on the Internet at [www.census.gov/const/www/](http://www.census.gov/const/www/).

<sup>21</sup> Real construction expenditures are the annual value of construction put in place (from the U.S. Census Bureau) deflated by the Producer Price Index of New Construction (from the Bureau of Labor Statistics).

<sup>22</sup> For a more thorough discussion of trends in the Construction sector, see forthcoming *Review* article by John P. Mullins and Chris Manning.

<sup>23</sup> Census Bureau, Survey of Manufacturers, on the Internet at [www.census.gov/indicator/www/m3/index.html](http://www.census.gov/indicator/www/m3/index.html).

<sup>24</sup> "China's expansion Squeezes Cement Supply," *The Washington Post*, Sept. 18, 2004. See also "Spreading Cement Shortages Delay Projects, Increase Prices," *The Wall Street Journal*, Aug. 9, 2004.

<sup>25</sup> Retail sales for Home building and garden supply stores (NAICS 444) data come from the U.S. Census Bureau, Service Sector Statistics Division.

<sup>26</sup> *Housing the Key to Economic Recovery*. pamphlet (Washington, DC, National Association of Home Builders, 2002).

<sup>27</sup> *The Fiscal Survey of States: December 2004* (Washington, DC, National Association of State Budget Officers, December 2004).

<sup>28</sup> *City Fiscal Conditions in 2004* (Washington, DC, National League of Cities, August 2004).

<sup>29</sup> The prior 5-year average refers to the average annual job gains between December 1997 and December 2002.

<sup>30</sup> For more information on the public sector, see Julie Hatch, "Employment in the public sector: two recessions' impact on jobs" *Monthly Labor Review*, Oct. 2004, pp. 38–47.

<sup>31</sup> Real Federal spending, deflated by the medical CPI, increased by 1.9 percent in 2003 and 2004—far less than the average rate of 3.3 percent in the years 1991 through 2003, according to projections from the Center for Medicare and Medicaid Services, U.S. Department of Health and Human Services, on the Internet at [www.cms.hhs.gov](http://www.cms.hhs.gov).

<sup>32</sup> These data come from the Center for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group, table 4, on the Internet at [www.cms.hhs.gov](http://www.cms.hhs.gov).

<sup>33</sup> According to projections from the National Center for Education Statistics, U.S. Department of Education, enrollment for Fall 2004 in primary and secondary private schools increased by 0.4 percent in 2004 and 0.2 percent in 2003; these are the lowest rates since 1989. Enrollment in private higher education increased by 0.7 percent in 2004; this is the lowest rate since 1993. Data are available on the Internet at [www.nces.ed.gov](http://www.nces.ed.gov).

<sup>34</sup> *The College Board's Annual Reports on College Pricing and Financial Aid Show Tuition Increases are Smaller than Last Year, but Still High by Historical Standards*, NO270 (New York, NY, College Board), Oct. 19, 2004.

<sup>35</sup> Information regarding hurricane effects in particular States contact the CES State and Area office is available on the Internet at [www.bls.gov/ae](http://www.bls.gov/ae).

<sup>36</sup> "Some Gulf Oil Outages May Last Until Next Year," *The Wall Street Journal*, Oct. 12, 2004.

<sup>37</sup> "Crude Oil Closes Above \$50 On Concerns About Shortages," *The New York Times* Oct. 2, 2004.

<sup>38</sup> "Wal-Mart Dims Sales Outlook for August as Demand Slips," *The Wall Street Journal*, Aug. 24, 2004.

<sup>39</sup> "Storms and Higher Gas Prices Hurt Retail Sales Last Month," *The New York Times*, Oct. 8, 2004.

<sup>40</sup> *Reference Book* (Federal Communications Commission, July 1, 2004).

<sup>41</sup> Foreign trade statistics are provided by the Census Bureau. The data here are year-to-date through December 2004 and are the sum of textile products (NAICS 313), textile product mills (NAICS 314), and apparel (NAICS 315).

<sup>42</sup> For a direct link to Job Openings and Labor Turnover data by industry, access: <http://data.bls.gov/PDQ/outside.jsp?survey=jt>.