

Engineering a Bright Future

It might surprise you to learn that in Northeast Minnesota, a region traditionally strong in blue-collar industries such as mining, manufacturing, construction, and transportation, one of fastest growing industry sub-sectors is Architecture, Engineering, and Related Services. In fact, engineering services firms in the Arrowhead Region are in the midst of a period of unprecedented expansion — with more growth projected in the foreseeable future. Across the Northland demand for workers with training in engineering has been building rapidly. Additional projected growth in the Mining and Manufacturing sectors means that Northeast Minnesota will be a great place for engineers and engineering technicians for years to come.

As these traditional industries become more reliant on advanced technologies, they require an increasingly skilled workforce. While many of these firms are directly hiring the engineering talent they need, many others are outsourcing this technical expertise to the region's growing engineering firms. According to DEED's Quarterly Census of Employment and Wages (QCEW), there were 89 Architecture, Engineering, and Related Services establishments providing 659 jobs across Northeast Minnesota at the

turn of the century. By 2013 the number of establishments had increased modestly to 110, but total employment had soared to 1,173 covered jobs, nearly double the amount one decade earlier.

Most of the long-term growth has come in the Engineering Services sub-sector. Since 2000, Engineering Services employment has grown by 21 percent across Minnesota, but in the seven counties of Northeast Minnesota, employment in the sub-sector has increased by an astounding 204 percent (Chart 1).



Features:

Minnesota Job Outlook to 2022

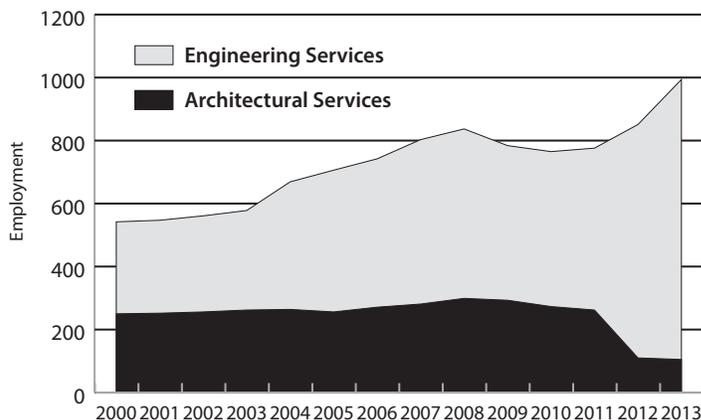
Sources of Job Churn in MN

In this issue:

- 1 Regional Spotlight
- 5 Measuring Minnesota
- 6 Local Area Unemployment Statistics
- 8 Industrial Analysis
- 10 Regional Analysis
- 11 Current Employment Statistics
- 14 Economic Indicators
- 16 What's Going On?

Chart 1

Architectural and Engineering Services Employment: 2000-2013



Source: DEED, Quarterly Census of Employment and Wages

Table 1

Architectural, Engineering, and Related Services Subsectors

Industry	2013 Establishments	2013 Employment	% Change 2012 - 2013	Average Weekly Wage
<i>Architectural, Engineering, and Related Services</i>	110	1,173	+13.6%	\$1,285
Architectural Services	19	105	-4.5%	\$965
Engineering Services	55	889	+20.0%	\$1,342
Surveying and Mapping Services	15	35	+2.9%	\$786
Testing Laboratories	9	93	-10.6%	\$831

Source: DEED, Quarterly Census of Employment and Wages

While the majority of Architectural, Engineering, and Related Services employment is found in the growing Engineering Services sub-sector, related jobs are also found in Architectural Services, Surveying and Mapping, and Testing Laboratories, although those industries saw small job declines (Table 1).

A Matter of Proportions

While much of the recent growth in engineering-related employment is occurring at Engineering Services firms, there are also engineers spread across

other industry sectors. According to DEED's Occupational Employment and Wage Statistics (OES) program, there were 1,900 people working in Architecture and Engineering occupations across Northeast Minnesota.

The largest percentage of those jobs were found in Professional and Business Services, the industry in which the Engineering Services sub-sector is classified, followed by 390 jobs in Manufacturing, 320 jobs in Public Administration, 270 jobs in Natural Resources and Mining, and 120 jobs in Trade.

Continuous Improvement Process

Looking to the future, employment in engineering-related industries and occupations is expected to continue expanding. According to DEED's Employment Outlook data, Northeast Minnesota's Architectural and Engineering Services sector was projected to grow an additional 17.8 percent from 2010 to 2020.

However, according to QCEW data, there were already 1,222 Architectural, Engineering, and Related Services jobs in Northeast Minnesota through the fourth quarter of 2013, meaning the region has already surpassed projected job totals for the decade. Instead, if employers keep growing jobs at the projected pace, the region could see an additional 200 engineering services jobs by 2020.

As noted above, other sectors employing workers with engineering skills are also projected to see significant growth over the next decade, including Mining and Manufacturing. Based on that, Northeast Minnesota should continue to be a great place for engineers and engineering technicians to find employment opportunities (Table 3).

The engineering-related occupations that are projected to have the most total openings by 2020 include Mechanical, Electrical, Civil, and Industrial Engineers, as well as Civil Engineering Technicians and Survey and Mapping Technicians. In contrast, Architects, Other Engineers, Surveyors, and Industrial Engineering Technicians are expected to see very small job changes (Table 4).

Table 2

Leading Industries for Architecture and Engineering Occupations

Industry	Estimated Regional Employment	Median Hourly Wage, Q2 2013
Professional and Business Services	720	\$30.11
Manufacturing	390	\$34.00
Public Administration	320	\$27.58
Natural Resources and Mining	270	\$34.86
Trade, Transportation, and Utilities	120	\$34.16
Financial Activities	40	\$33.41
Construction	20	\$28.23
Educational and Health Services	10	\$22.95

Source: Occupational Employment Statistics

Table 3
Employment Outlook, Industries, 2010 - 2020

NAICS Code	NAICS Industry	Estimated 2010 Employment	Projected 2020 Employment	Percent Change	Total Change
5413	Architectural and Engineering Services	900	1,060	17.8%	160
21	Mining	3,839	4,316	12.4%	477
31	Manufacturing	8,303	9,010	8.5%	707

Source: DEED, Employment Outlook

Table 4
Employment Outlook, Occupations, 2010 - 2020

Occupation	Estimated 2010 Employment	Projected 2020 Employment	Percent Change	Total Change	Replacement Hires	Total Hires
Mechanical Engineers	156	182	16.7%	26	50	80
Electrical Engineers	162	177	9.3%	15	40	60
Industrial Engineers	156	177	13.5%	21	30	50
Civil Engineers	169	188	11.2%	19	30	50
Surveying and Mapping Technicians	134	145	8.2%	11	30	40
Civil Engineering Technicians	237	240	1.3%	3	40	40
Electrical and Electronics Engineering Technicians	139	136	-2.2%	-3	30	30
Architects, Except Landscape and Naval	61	75	23.0%	14	10	20
Engineers, All Other	42	50	19.0%	8	10	20
Mechanical Drafters	58	69	19.0%	11	10	20
Environmental Engineers	35	41	17.1%	6	10	20
Surveyors	31	34	9.7%	3	10	10
Industrial Engineering Technicians	36	39	8.3%	3	10	10
Mining and Geological Engineers, Including Mining	28	30	7.1%	2	10	10
Engineering Technicians, Except Drafters, All Other	42	43	2.4%	1	10	10
Architectural and Civil Drafters	73	73	0.0%	0	10	10

Source: DEED, Employment Outlook



Table 5

Engineering-related Occupations in Demand, Northeast Minnesota

Job Title	Rank	Current Demand Indicator	25th Percentile Wage	Median Wage	Regional Growth Rate, 2010-2020	Total Openings, 2010-2020	Education Requirements
Architectural, Engineering Managers	38	*****	\$82,813	\$99,268	Above Average	60	Bachelor's
Civil Engineering Technicians	42	*****	\$47,013	\$56,013	Below Average	40	Associate's
Mining and Geological Engineers	44	*****	\$68,615	\$81,307	Average	10	Bachelor's
Electrical Engineers	61	*****	\$70,290	\$78,602	Average	60	Bachelor's
Environmental Engineers	65	*****	\$72,051	\$82,804	Above Average	20	Bachelor's
Industrial Engineers	82	****	\$66,595	\$79,049	Above Average	50	Bachelor's
Chemical Engineers	85	****	\$65,323	\$76,034	Below Average	0	Bachelor's
Aerospace Engineers	95	****	\$80,224	\$96,620	Well Above Average	0	Bachelor's
Mechanical Engineers	117	****	\$61,164	\$73,434	Above Average	80	Bachelor's
Health and Safety Engineers	174	***	\$78,015	\$89,283	Well Above Average	0	Bachelor's
Electronics Engineers	176	***	\$60,598	\$72,885	Well Above Average	0	Bachelor's
Mechanical Engineering Technicians	196	***	\$38,359	\$43,801	Below Average	10	Associate's
Engineering Technicians, All Other	199	***	\$48,382	\$53,216	Below Average	10	Associate's

Source: DEED. Occupations in Demand tool

High Demand, High Pay

Because of the recent growth in Northeast Minnesota, 13 engineering occupations are exhibiting conditions of high current demand according to DEED's Occupations in Demand tool. Engineering-related occupations are also some of the best-paying jobs in the region. Engineering technician jobs that generally require an associate degree pay a median annual salary ranging from the high \$30,000's to the high \$50,000's, while engineering jobs that require a bachelor's degree pay median wages beginning in the low \$70,000's to the high \$90,000's (Table 5).

A Blueprint for Success

After enjoying unprecedented job growth in the last 10 years, industries that rely on skilled engineers and technicians are expected to continue expanding rapidly in the next decade as well. Many of these occupations require college degrees but pay high wages and are currently in high demand. By connecting the dots, students and jobseekers looking to build a strong career should consider the Architecture and Engineering Services industry in Northeast Minnesota.



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by Jan Saxhaug
Labor Market Information Office
Minnesota Department of Employment
and Economic Development

Regional
Spotlight
NORTHEAST MINNESOTA

Minnesota Employment Review July 2014

Measuring Minnesota



Income inequality has become a widely-discussed topic lately. The Occupy Wall Street movement in 2011 brought the country's attention to the growing divide between rich and poor. More recently, the bestseller *Capital in the Twenty-First Century* by economist Thomas Piketty argued that this divide will continue to worsen, concentrating wealth further among the rich and damaging the entire economy in the process. While the causes and importance of rising income inequality are too complex to discuss here, we can look at how evenly distributed income is in Minnesota when compared with the rest of the country.

A cursory glance at Table 1 suggests that income in Minnesota is dispersed more evenly than it is nationwide, as people making the 90th percentile wage here actually make slightly less than the national average, while lower-wage workers, including those at the low end of the income scale and the median earners, make markedly more than their national counterparts.

There are more specific ways than this to measure income distribution, and the most widely used of those is called the Gini index (or the Gini coefficient or ratio, depending on the source). The Gini index measures income distribution on a scale of 0 to 1, where zero represents perfect equality (everyone makes the same amount of money) and one represents perfect inequality (one person makes 100 percent of the money). As you can see in Figure 1, Minnesota has greater income equality than the nation as a whole. In fact, we have the 14th lowest Gini index in the country. It's worth noting, however, that rural states with smaller population bases, such as Wyoming and Alaska, seem to tend toward lower scores. Likewise, the biggest Gini indices tend to belong to states with high population density or those in the deep south, such as Washington D.C., New York, and Mississippi (though these generalizations are far from constant, and there are multiple exceptions).¹

To get another view of our standing, while attempting to account for population and geography, we compared the Minneapolis-St. Paul Metropolitan Statistical Area to a number of MSAs roughly similar in population size and in location.

As you also may have noticed in Figure 1, income inequality in both the United States and Minnesota is indeed growing. The Gini Index in the U.S. has grown from .397 in 1967 to .477 in 2012.² Likewise, Minnesota's own Gini Index for families has grown from .361 in 1969 to .434 in 1999.³

For a more detailed look at wage inequality in Minnesota, see Amy Gehring's article in the January 2012 issue of Minnesota Employment Review or find it in our archives at <http://cdm16105.contentdm.oclc.org/>

Table 1: Average Wage by Income Level, First Quarter 2014

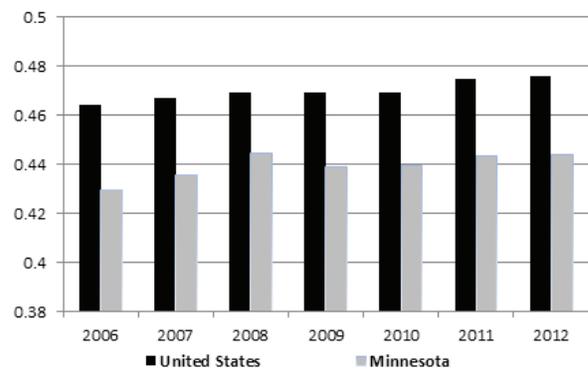
	Average (Mean) Wage	10th Percentile Wage	25th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile
Minnesota	\$23.00/hr	\$8.97	\$11.79	\$18.15	\$28.52	\$42.89
United States	\$22.56/hr	\$8.83	\$11.01	\$17.04	\$27.62	\$42.90

Source: Occupational Employment and Wages Statistics, Minnesota Department of Employment and Economic Development

Metropolitan Statistical Area	Gini Index
Portland-Vancouver-Beaverton, OR-WA	0.435
Minneapolis-St. Paul-Bloomington, MN	0.436
Milwaukee-Waukesha-West Allis, WI	0.448
St. Louis, MO-IL	0.449
Indianapolis-Carmel, IN	0.451
Denver-Aurora-Broomfield, CO	0.455
Detroit-Warren-Livonia, MI	0.457
Cleveland-Elyria-Mentor, OH	0.465

Source: U.S. Census Bureau, 2007-2009 American Community Survey

Figure 1: Gini Index for the United States and Minnesota,



¹United States Census Bureau, 2012 American Community Survey, 1-Year Estimates.

²U.S. Census Bureau, Historical Income Tables from the Current Population Survey, Annual Social and Economic Supplement.

³U.S. Census Bureau, 1970, 1980, 1990 and 2000 Decennial Censuses.

by Nick Dobbins

Labor Force Estimates

County/ Area

County/ Area	Labor Force			Employment			Unemployment			Rate of Unemployment		
	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013
United States ('000s) (Seasonally adjusted) (Unadjusted)	155,694 156,997	155,613 155,841	155,835 157,089	146,221 147,104	145,814 146,398	144,058 144,841	9,474 9,893	9,799 9,443	11,777 12,248	6.1% 6.3	6.3% 6.1	7.6% 7.8
Minnesota (Seasonally adjusted) (Unadjusted)	2,995,189 3,022,726	2,999,601 2,992,468	2,971,393 3,002,712	2,859,643 2,884,495	2,860,560 2,866,875	2,819,233 2,845,322	135,546 138,231	139,041 125,593	152,160 157,390	4.5 4.6	4.6 4.2	5.1 5.2
Metropolitan Statistical Areas (MSA)*												
Mpls.-St. Paul MSA	1,900,021	1,881,116	1,879,985	1,815,246	1,805,106	1,782,960	84,775	76,010	97,025	4.5	4.0	5.2
Duluth-Superior MSA	145,715	144,649	146,725	137,269	136,576	137,178	8,446	8,073	9,547	5.8	5.6	6.5
Rochester MSA	106,996	105,158	107,294	102,726	101,266	102,445	4,270	3,892	4,849	4.0	3.7	4.5
St. Cloud MSA	108,933	109,366	107,183	104,042	104,937	101,299	4,891	4,429	5,884	4.5	4.0	5.5
Mankato-N Mankato MSA	59,133	59,019	58,648	56,821	57,028	56,047	2,312	1,991	2,601	3.9	3.4	4.4
Fargo-Moorhead MSA	125,545	124,350	122,515	121,721	121,236	118,188	3,824	3,114	4,327	3.0	2.5	3.5
Grand Forks MSA	53,660	53,243	54,023	51,542	51,539	51,832	2,118	1,704	2,191	3.9	3.2	4.1
Region One	51,261	50,964	51,243	49,027	48,908	48,743	2,234	2,056	2,500	4.4	4.0	4.9
Kittson	2,702	2,677	2,730	2,583	2,576	2,581	119	101	149	4.4	3.8	5.5
Marshall	5,811	5,774	5,811	5,502	5,460	5,459	309	314	352	5.3	5.4	6.1
Norman	3,579	3,563	3,673	3,414	3,409	3,487	165	154	186	4.6	4.3	5.1
Pennington	9,881	9,764	9,801	9,502	9,387	9,340	379	377	461	3.8	3.9	4.7
Polk	17,746	17,698	17,621	16,951	17,004	16,789	795	694	832	4.5	3.9	4.7
Red Lake	2,344	2,339	2,349	2,227	2,228	2,219	117	111	130	5.0	4.7	5.5
Roseau	9,198	9,149	9,258	8,848	8,844	8,868	350	305	390	3.8	3.3	4.2
Region Two	41,373	40,933	41,299	38,730	38,414	38,428	2,643	2,519	2,871	6.4	6.2	7.0
Beltrami	22,344	22,287	22,262	21,007	21,036	20,765	1,337	1,251	1,497	6.0	5.6	6.7
Clearwater	4,315	4,371	4,272	3,903	3,912	3,857	412	459	415	9.5	10.5	9.7
Hubbard	9,822	9,449	9,845	9,218	8,885	9,189	604	564	656	6.1	6.0	6.7
Lake of the Woods	2,447	2,335	2,462	2,310	2,220	2,309	137	115	153	5.6	4.9	6.2
Mahnomen	2,445	2,491	2,458	2,292	2,361	2,308	153	130	150	6.3	5.2	6.1
Region Three	170,042	168,028	171,214	159,969	158,157	159,928	10,073	9,871	11,286	5.9	5.9	6.6
Aitkin	7,422	7,313	7,517	6,977	6,863	7,009	445	450	508	6.0	6.2	6.8
Carlton	17,793	17,766	17,819	16,815	16,737	16,788	978	1,029	1,031	5.5	5.8	5.8
Cook	3,569	3,251	3,546	3,399	3,072	3,385	170	179	161	4.8	5.5	4.5
Itasca	23,118	22,821	23,364	21,555	21,290	21,606	1,563	1,531	1,758	6.8	6.7	7.5
Koochiching	6,791	6,568	6,811	6,169	5,964	6,249	622	604	562	9.2	9.2	8.3
Lake	6,621	6,255	6,708	6,334	5,966	6,325	287	289	383	4.3	4.6	5.7
St. Louis	104,728	104,054	105,449	98,720	98,265	98,566	6,008	5,789	6,883	5.7	5.6	6.5
City of Duluth	45,973	45,659	46,212	43,577	43,376	43,509	2,396	2,283	2,703	5.2	5.0	5.8
Balance of St. Louis County	58,755	58,395	59,237	55,143	54,889	55,057	3,612	3,506	4,180	6.1	6.0	7.1
Region Four	130,496	128,940	128,857	125,744	124,546	123,331	4,752	4,394	5,526	3.6	3.4	4.3
Becker	18,614	18,275	18,505	17,789	17,520	17,553	825	755	952	4.4	4.1	5.1
Clay	35,555	35,477	34,269	34,551	34,529	33,008	1,004	948	1,261	2.8	2.7	3.7
Douglas	21,880	21,435	21,843	21,112	20,720	20,949	768	715	894	3.5	3.3	4.1
Grant	3,317	3,290	3,337	3,165	3,152	3,171	152	138	166	4.6	4.2	5.0
Otter Tail	32,148	31,658	32,007	30,752	30,369	30,442	1,396	1,289	1,565	4.3	4.1	4.9
Pope	6,764	6,686	6,730	6,541	6,484	6,478	223	202	252	3.3	3.0	3.7
Stevens	6,439	6,456	6,454	6,246	6,291	6,237	193	165	217	3.0	2.6	3.4
Traverse	1,799	1,756	1,852	1,720	1,682	1,765	79	74	87	4.4	4.2	4.7
Wilkin	3,980	3,907	3,860	3,868	3,799	3,728	112	108	132	2.8	2.8	3.4
Region Five	85,762	84,015	86,241	81,112	79,576	80,936	4,650	4,439	5,305	5.4	5.3	6.2
Cass	14,647	14,174	14,750	13,692	13,268	13,665	955	906	1,085	6.5	6.4	7.4
Crow Wing	34,771	33,698	35,023	32,998	31,977	32,932	1,773	1,721	2,091	5.1	5.1	6.0
Morrison	17,523	17,423	17,496	16,547	16,476	16,435	976	947	1,061	5.6	5.4	6.1
Todd	12,551	12,498	12,649	11,978	11,985	11,993	573	513	656	4.6	4.1	5.2
Wadena	6,270	6,222	6,323	5,897	5,870	5,911	373	352	412	5.9	5.7	6.5
Region Six East	67,367	66,453	67,622	64,316	63,585	64,098	3,051	2,868	3,524	4.5	4.3	5.2
Kandiyohi	25,247	25,007	25,404	24,237	24,047	24,267	1,010	960	1,137	4.0	3.8	4.5
McLeod	20,194	19,790	20,136	19,193	18,863	18,979	1,001	927	1,157	5.0	4.7	5.7
Meeker	12,724	12,631	12,760	12,157	12,089	12,084	567	542	676	4.5	4.3	5.3
Renville	9,202	9,025	9,322	8,729	8,586	8,768	473	439	554	5.1	4.9	5.9

*Minneapolis-St. Paul Metropolitan Statistical Area (MSA) now includes Sherburne County in Minnesota and Pierce County in Wisconsin. St. Cloud MSA is now comprised of Benton and Stearns counties.

Numbers are unadjusted unless otherwise labeled.
 Source: Department of Employment and Economic Development,
 Local Area Unemployment Statistics, and North Dakota Job Service, 2014.

Labor Force Estimates

County/ Area

County/ Area	Labor Force			Employment			Unemployment			Rate of Unemployment		
	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013	June 2014	May 2014	June 2013
Region Six West	25,017	24,698	25,351	23,946	23,726	24,119	1,071	972	1,232	4.3%	3.9%	4.9%
Big Stone	2,714	2,680	2,774	2,602	2,579	2,643	112	101	131	4.1	3.8	4.7
Chippewa	7,344	7,251	7,375	7,019	6,949	7,029	325	302	346	4.4	4.2	4.7
Lac Qui Parle	4,126	4,044	4,228	3,962	3,895	4,018	164	149	210	4.0	3.7	5.0
Swift	5,206	5,131	5,301	4,972	4,917	5,025	234	214	276	4.5	4.2	5.2
Yellow Medicine	5,627	5,592	5,673	5,391	5,386	5,404	236	206	269	4.2	3.7	4.7
Region Seven East	84,451	83,949	83,923	79,707	79,277	78,604	4,744	4,672	5,319	5.6	5.6	6.3
Chisago	28,525	28,362	28,371	27,206	27,057	26,716	1,319	1,305	1,655	4.6	4.6	5.8
Isanti	20,900	20,775	20,637	19,856	19,747	19,498	1,044	1,028	1,139	5.0	4.9	5.5
Kanabec	8,240	8,133	8,158	7,605	7,512	7,525	635	621	633	7.7	7.6	7.8
Mille Lacs	12,330	12,260	12,276	11,470	11,441	11,364	860	819	912	7.0	6.7	7.4
Pine	14,456	14,419	14,481	13,570	13,520	13,501	886	899	980	6.1	6.2	6.8
Region Seven West	229,258	228,757	226,167	219,046	219,310	214,233	10,212	9,447	11,934	4.5	4.1	5.3
Benton	22,557	22,682	22,119	21,472	21,656	20,906	1,085	1,026	1,213	4.8	4.5	5.5
Sherburne	49,795	49,451	49,262	47,548	47,287	46,692	2,247	2,164	2,570	4.5	4.4	5.2
Stearns	86,376	86,684	85,064	82,570	83,281	80,393	3,806	3,403	4,671	4.4	3.9	5.5
Wright	70,530	69,940	69,722	67,456	67,086	66,242	3,074	2,854	3,480	4.4	4.1	5.0
Region Eight	69,971	69,311	70,081	67,092	67,017	67,168	2,879	2,294	2,913	4.1	3.3	4.2
Cottonwood	6,688	6,463	6,582	6,199	6,221	6,267	489	242	315	7.3	3.7	4.8
Jackson	7,712	7,610	7,577	7,447	7,396	7,315	265	214	262	3.4	2.8	3.5
Lincoln	3,500	3,497	3,521	3,357	3,370	3,378	143	127	143	4.1	3.6	4.1
Lyon	15,087	15,099	15,109	14,518	14,599	14,459	569	500	650	3.8	3.3	4.3
Murray	6,113	6,002	6,091	5,880	5,823	5,879	233	179	212	3.8	3.0	3.5
Nobles	11,347	11,364	11,427	10,914	10,998	10,951	433	366	476	3.8	3.2	4.2
Pipestone	5,638	5,593	5,722	5,452	5,425	5,510	186	168	212	3.3	3.0	3.7
Redwood	8,186	8,007	8,343	7,795	7,662	7,898	391	345	445	4.8	4.3	5.3
Rock	5,700	5,676	5,709	5,530	5,523	5,511	170	153	198	3.0	2.7	3.5
Region Nine	132,949	131,934	133,053	126,997	126,599	126,411	5,952	5,335	6,642	4.5	4.0	5.0
Blue Earth	39,317	39,232	39,010	37,724	37,862	37,211	1,593	1,370	1,799	4.1	3.5	4.6
Brown	15,570	15,531	15,662	14,886	14,880	14,888	684	651	774	4.4	4.2	4.9
Faribault	7,420	7,213	7,540	7,025	6,834	7,128	395	379	412	5.3	5.3	5.5
Le Sueur	15,298	15,132	15,019	14,487	14,357	14,103	811	775	916	5.3	5.1	6.1
Martin	10,544	10,460	10,868	10,048	10,028	10,283	496	432	585	4.7	4.1	5.4
Nicollet	19,816	19,787	19,638	19,097	19,166	18,836	719	621	802	3.6	3.1	4.1
Sibley	9,564	9,420	9,744	9,174	9,057	9,280	390	363	464	4.1	3.9	4.8
Waseca	9,799	9,610	9,948	9,279	9,145	9,378	520	465	570	5.3	4.8	5.7
Watonwan	5,621	5,549	5,624	5,277	5,270	5,304	344	279	320	6.1	5.0	5.7
Region Ten	277,200	273,682	277,872	265,210	262,841	264,229	11,990	10,841	13,643	4.3	4.0	4.9
Dodge	11,325	11,091	11,394	10,849	10,695	10,820	476	396	574	4.2	3.6	5.0
Fillmore	11,513	11,358	11,622	11,034	10,914	11,052	479	444	570	4.2	3.9	4.9
Freeborn	16,461	16,295	16,670	15,725	15,587	15,812	736	708	858	4.5	4.3	5.1
Goodhue	26,096	25,720	26,169	24,925	24,667	24,832	1,171	1,053	1,337	4.5	4.1	5.1
Houston	10,656	10,643	10,554	10,169	10,170	9,973	487	473	581	4.6	4.4	5.5
Mower	21,466	21,342	21,632	20,589	20,522	20,612	877	820	1,020	4.1	3.8	4.7
Olmsted	83,719	82,325	83,885	80,443	79,299	80,223	3,276	3,026	3,662	3.9	3.7	4.4
City of Rochester	61,179	60,199	61,292	58,720	57,885	58,559	2,459	2,314	2,733	4.0	3.8	4.5
Rice	33,369	32,761	33,303	31,658	31,284	31,381	1,711	1,477	1,922	5.1	4.5	5.8
Steele	21,514	21,209	21,412	20,607	20,398	20,384	907	811	1,028	4.2	3.8	4.8
Wabasha	11,952	11,741	12,016	11,434	11,271	11,403	518	470	613	4.3	4.0	5.1
Winona	29,129	29,197	29,215	27,777	28,034	27,737	1,352	1,163	1,478	4.6	4.0	5.1
Region Eleven	1,657,577	1,640,803	1,639,791	1,583,596	1,574,918	1,555,094	73,981	65,885	84,697	4.5	4.0	5.2
Anoka	193,749	191,952	191,715	184,875	183,862	181,548	8,874	8,090	10,167	4.6	4.2	5.3
Carver	52,290	51,748	51,637	50,055	49,781	49,154	2,235	1,967	2,483	4.3	3.8	4.8
Dakota	236,813	234,483	234,188	226,551	225,310	222,474	10,262	9,173	11,714	4.3	3.9	5.0
Hennepin	679,811	673,024	672,292	649,395	645,836	637,707	30,416	27,188	34,585	4.5	4.0	5.1
City of Bloomington	50,093	49,644	49,516	47,873	47,611	47,011	2,220	2,033	2,505	4.4	4.1	5.1
City of Minneapolis	222,061	219,744	219,685	211,561	210,402	207,753	10,500	9,342	11,932	4.7	4.3	5.4
Ramsey	280,876	277,621	277,942	267,534	266,067	262,718	13,342	11,554	15,224	4.8	4.2	5.5
City of St. Paul	149,919	148,104	148,617	142,348	141,568	139,786	7,571	6,536	8,831	5.1	4.4	5.9
Scott	77,302	76,602	76,635	74,153	73,747	72,818	3,149	2,855	3,817	4.1	3.7	5.0
Washington	136,736	135,373	135,382	131,033	130,315	128,675	5,703	5,058	6,707	4.2	3.7	5.0



Industrial Analysis

Overview

Seasonally adjusted employment increased sharply in June, adding 8,500 jobs (0.3 percent) to settle at 2,822,400 for the month. This comes on the heels of a May increase of 7,200, revised downward from 10,300, giving us back-to-back months of solid job growth for the first time since November-December 2013. Monthly gains were driven by an increase of 9,300 among service providers, as goods producers lost 800 jobs, led by a drop of 900 (0.3 percent) in Manufacturing. Industry groups with strong growth included Trade, Transportation, and Utilities (up 2,200 or 0.4 percent), Educational and Health Services (up 3,500, 0.7 percent) and Government (up 3,900, 0.9 percent). Job growth continues to be strong on an annual basis, with employment up 53,779 (1.9 percent) from June 2013 and all but two major supersectors adding significant employment. Construction employment is up 8,363 (7.6 percent), Professional and Business Services is up 12,452 (3.6 percent) and Educational and Health Services has added 11,153 jobs (2.3 percent). The Other Services industry group saw a steep monthly drop, causing it to fall into a net employment loss for the year (down 1,854, 1.6 percent). It joins Financial Activities (down 1,886 or 1 percent) as the only industry groups with an annual decline in employment.

Mining and Logging

Employment increased in June, adding 200 jobs (2.8 percent) for a total of 7,400 for the month. This is a post-recession high for the supersector, marking its highest employment since January 2001. Employment is also strong on an annual basis, up 564 (7.9 percent) over 2013 levels.

Construction

Employment is down slightly for June, off by 100 jobs (0.1 percent). This dip represents a leveling-off for the supersector following its seasonally adjusted gain of 3,000 jobs in May. Employment remains strong for the year, however,

with 8,363 (7.6 percent) more jobs than in June 2013. The largest annual growth within the supersector has come from Heavy and Civil Engineering Construction (up 3,979, 22.3 percent) and Specialty Trade Contractors (4,847, 7.1 percent). Employment in Residential Building Construction is also up for the year (916, 8.4 percent) while Construction of Buildings and Foundation, Structure, and Building Exterior Contractors have lost jobs for the year.

Manufacturing

Manufacturing employment dropped in June, losing 900 jobs (0.3 percent) to settle at 315,000 for the month. Durable Goods Manufacturing added jobs for the fourth straight month (up 500 or 0.2 percent) but those gains were wiped out by a loss of 1,400 jobs (1.2 percent) in Non-Durable Goods Manufacturing. Annually, employment is up 8,415 (2.7 percent) on growth in both the Durable and Non-Durable Goods segments of the supersector (up 3.2 and 1.8 percent, respectively). Subsectors with large annual increases include Fabricated Metal Product Manufacturing (up 1,641 or 3.9 percent), Transportation Equipment Manufacturing (739, 6.6 percent), and Food Manufacturing (1,363, 3 percent).

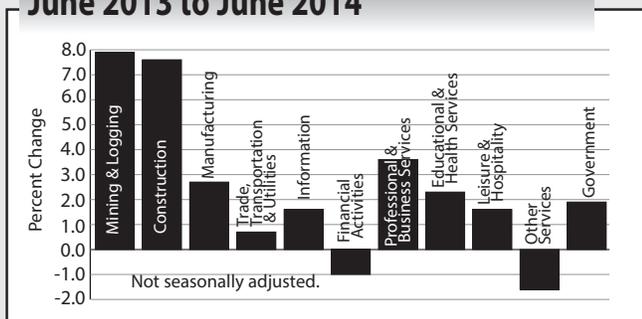
Trade, Transportation, and Utilities

Trade, Transportation, and Utilities employment displayed healthy growth in June, adding 2,200 jobs (0.4 percent) and rebounding fully from May's 600 job decline. The monthly increase was largely driven by growth in Retail Trade (up 2,600, 0.9 percent) while employment in Wholesale Trade was nearly flat, adding just 100 jobs (0.1 percent) and the Transportation and Warehousing sector shed jobs, down 500 (0.5 percent) in June. On an annual basis, employment in the supersector is up 3,592 (0.7 percent) with growth in all three component sectors. Wholesale Trade employment makes up most of those gains, adding 2,672 jobs (2 percent) since June 2013, thanks to an increase of 2,983 (4.6 percent) among Durable Goods Merchant Wholesalers, which overcame small losses in other component industries. Retail Trade is up 498 (0.2 percent) and Transportation, Warehousing, and Utilities is up 422 (0.5 percent).

Information

Employment was up 500 (0.9 percent) in June for a total of 54,500 jobs. That marks four straight months where employment in Information has either grown or held steady. The supersector has also added employment on an annual basis, up 826 (1.6 percent) since June 2013. Despite this growth, employment in the two available component subsectors, Publishing Industries (except Internet) and Telecommunications, both remain down (1.2 and 0.9 percent, respectively). Unavailable subsectors include Internet Publishing and Broadcasting, Data Processing, Hosting, and Related Services, and Other Information Services.

MN Employment Growth June 2013 to June 2014



Source: Department of Employment and Economic Development, Current Employment Statistics, 2014.

*Over-the-year data are not seasonally adjusted because of small changes in seasonal adjustment factors from year to year. Also, there is no seasonality in over-the-year changes.

Financial Activities

Employment grew slightly in June, adding 600 jobs (0.3 percent) and recovering from the small employment loss it suffered in May. The growth was entirely from an increase in the Real Estate and Rental and Leasing sector, which added 1,000 jobs (2.5 percent). This overcame the loss of 400 jobs (0.3 percent) in Finance and Insurance. The small monthly gain was not enough to pull the supersector into annual job gain, as employment remains off, down 1,886 (1 percent) over the past 12 months. An annual decline of 2,479 (1.7 percent) in Finance and Insurance more than overwhelmed the gain of 593 (1.5 percent) in Real Estate and Rental and Leasing.

Professional and Business Services

Employment grew slightly in June, adding 300 jobs (0.1 percent) on the heels of May's strong month of growth. The addition of 1,300 jobs (0.9 percent) in Professional, Scientific, and Technical Services overcame the loss of 900 (0.7 percent) in Administrative and Support and Waste Management and Remediation Services and 100 (0.1 percent) in Management of Companies and Enterprises. The supersector is also showing strong growth on an annual basis, adding 12,452 jobs (3.6 percent) in the last 12 months thanks to increases in Professional, Scientific, and Technical Services (up 4,669, 3.5 percent), Management of Companies and Enterprises (up 2,432, 3.1 percent), and Administrative and Support and Waste Management and Remediation Services (up 5,352, 3.9 percent).

Educational and Health Services

Seasonally adjusted employment rebounded from a down month in May to add 3,500 jobs (0.7 percent) in June. Both component sectors added employment with Educational Services growing 2,100 (3.2 percent) and Health Care and Social Assistance employment increasing by 1,400 (0.3 percent). Annually, the supersector's employment has increased 11,153 (2.3 percent) with growth in both component sectors. Notable subsector changes include a growth of 5,581 (4.1 percent) in Ambulatory Health Care Services and an increase of 2,577 (3.3 percent) in Social Assistance.

Leisure and Hospitality

Employment dropped slightly for the second straight month, losing 300 jobs (0.1 percent) in June because of a decrease of 1,700 (0.8 percent) in Accommodation and Food Services. Employment in the industry group remains strong for the year, however, up 4,254 (1.6 percent) since 2013. Notable among subsectors is a sharp decline in Full-Service Restaurant employment which has dropped 4,909 (5.5 percent) in the past year.

Other Services

Employment was off 1,400 (1.2 percent) in June, giving back all of its May employment gains and more. Annually, the supersector is now losing jobs as well, down 1,854 (1.6 percent) since June 2013. All three component subsectors have lost employment, with the largest numerical and proportional decline in Religious, Grantmaking, Civic, Professional, and Similar Organizations, down 1,662 (2.4 percent).

Government

Employment increased by 3,900 (0.9 percent) in June, with growth of 4,200 (1.5 percent) in Local Government overcoming losses of 100 and 200, respectively, in Federal and State Government. Employment in this supersector remains up for the year as well, with 7,898 (1.9 percent) more jobs than in June 2013. As is the case on a monthly basis, annual declines in Federal and State Government employment were overwhelmed by growth in Local Government (up 10,487, 3.6 percent).

by Nick Dobbins

Seasonally Adjusted Nonfarm Employment

Industry	In 1,000's		
	June 2014	May 2014	April 2014
Total Nonagricultural	2,822.4	2,813.9	2,806.7
Goods-Producing	431.3	432.1	427.0
Mining and Logging	7.4	7.2	7.1
Construction	108.9	109.0	106.0
Manufacturing	315.0	315.9	313.9
Service-Providing	2,391.1	2,381.8	2,379.7
Trade, Transportation, and Utilities	514.7	512.5	513.1
Information	54.5	54.0	53.0
Financial Activities	180.1	179.5	179.4
Professional and Business Services	354.4	354.1	349.3
Educational and Health Services	68.0	65.9	67.4
Leisure and Hospitality	249.3	249.6	251.6
Other Services	117.3	118.7	117.7
Government	419.5	415.6	417.3

Source: Department of Employment and Economic Development
Current Employment Statistics, 2014.

Regional Analysis

Minneapolis-St. Paul-Bloomington Metropolitan Statistical Area (MSA)

The MSA showed strong employment growth in June, adding 17,995 jobs (1.0 percent) before seasonal adjustment. The increase extends the metro's streak to five straight months with employment gains, as the last time employment dipped was the post-holiday slump between December and January. Industry groups with particularly large employment gains for the month included Mining, Logging, and Construction (up 3,112 or 4.8 percent), Manufacturing (up 3,299, 1.8 percent), Leisure and Hospitality (up 3,879, 2.2 percent), and Professional and Business Services (up 6,712, 2.4 percent). The gains in Professional and Business Services were driven largely by a gain of 4,952 (5 percent) in Administrative and Support and Waste Management and Remediation Services, although every major component sector saw monthly job gains. The only supersectors to lose employment in June were Educational and Health Services, which dropped 1,199 jobs (0.4 percent), Other Services (down 710 or 0.9 percent), and Government (down 570, 0.2 percent). For the year, employment in the Twin Cities metro was up 32,286 (1.8 percent) with large gains in Manufacturing (up 6,957, 3.8 percent), Educational and Health Service (11,142, 3.8 percent), and Government (8,246, 3.5 percent). Trade, Transportation, and Utilities (down 3,861, 1.2 percent), Information (down 91, 0.2 percent), and Other Services (down 1,678, 2.1 percent) were the only supersectors to lose employment on the year.

Duluth-Superior MSA

Employment continued growing last month, adding 1,389 jobs (1.0 percent) for a total June estimate of 134,432. Increases were spread across most industries, with the only

losses coming in Educational and Health Services (down 418 or 1.3 percent), and Government, down 1,424 (5.3 percent), largely due to a decline of 1,144 (2.6 percent) in State Government. Supersectors with the largest employment increases included Mining, Logging, and Construction (up 1,163 or 13.6 percent) and Leisure and Hospitality (up 1,307, 9.5 percent). Employment levels in the Duluth metro also rose on an annual basis, albeit less dramatically, with the area adding 445 (0.3 percent) jobs over June 2013.

Rochester MSA

Employment jumped sharply in June, adding 2,085 jobs (1.9 percent) and outpacing statewide growth as well as employment growth in any other metropolitan statistical area for the month. Job gains were widely distributed among industry groups, with notable gains occurring in Manufacturing (up 598, 6.1 percent), Mining, Logging, and Construction (up 191, 5.5 percent), Educational and Health Services (up 394, 0.9 percent) and Government (up 372, 3.4 percent). The only supersector to lose employment in the Rochester MSA was Financial Activities, which lost only 10 jobs (0.4 percent). Employment gains were less dramatic on an annual basis, with 392 more jobs than in June 2013.

St. Cloud MSA

Employment dipped slightly in June, off 411 jobs (0.4 percent) from May estimates. The decline is largely caused by steep drops in Educational and Health Services (down 631 or 3.1 percent) and Government employment (down 1,029, 6.5 percent).

Every other supersector added jobs for the month. Mining, Logging, and Construction added 235 jobs (4.2 percent), Manufacturing added 304 (2 percent), Leisure and Hospitality added 288 (3.1 percent), and Trade, Transportation, and Utilities added 185 (0.9 percent) thanks to an increase of 152 (3.6 percent) in Wholesale Trade. Annually, employment in St. Cloud has increased by 2,904 (2.8 percent).

Mankato-North Mankato MSA

Employment decreased slightly in June with the metro area shedding 32 jobs (0.1 percent) from May estimates. Goods producers increased employment by 165 (1.6 percent) while service providers lost 197 jobs (0.4 percent). The decline in service providers was tempered by an increase of 410 (4.7 percent) in Government employment, as private sector service providers lost 607 jobs (1.7 percent) for the month. On an annual basis, Mankato area employment increased by 868 (1.6 percent).

Fargo-Moorhead MSA

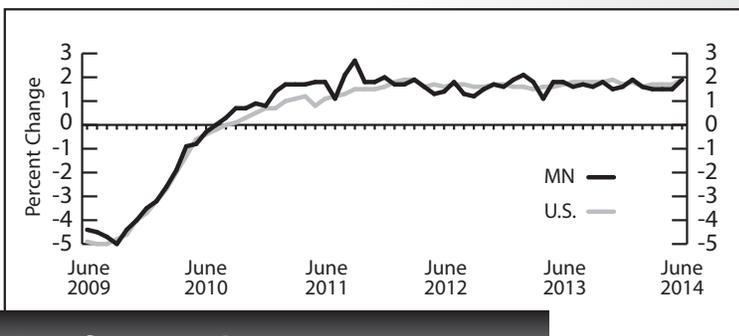
Employment grew by 352 (0.3 percent) in June as notable increases in Mining, Logging, and Construction (up 1,305, 14 percent) and Professional and Business Service (up 522, 3.2 percent) overcame losses in Government (down 1,046 or 5.7 percent), Trade, Transportation, and Utilities (down 205, 0.7 percent), and a handful of other supersectors. Annually, employment in the Fargo-Moorhead area showed strong growth, adding 5,900 jobs (4.5 percent) through increases in almost every major industry group.

Grand Forks-East Grand Forks MSA

The MSA lost a small number of jobs in June, with employment dropping by 108 (0.2 percent) over May estimates. Among the industry groups with significant movement, Mining, Logging, and Construction added 352 jobs (10.9 percent), Leisure and Hospitality lost 138 jobs (2.4 percent), and Government employers lost 220 jobs (1.6 percent). Employment has been virtually flat on the year as the metro area has added just 55 jobs (0.1 percent) since June 2013.

by Nick Dobbins

Source: Department of Employment and Economic Development, Current Employment Statistics, 2014; Bureau of Labor Statistics, U.S. Department of Labor, Current Employment Statistics, 2014.



Total Nonfarm Jobs U.S. and MN over-the-year percent change

Employer Survey of Minnesota Nonfarm Payroll Jobs, Hours and Earnings

Numbers are unadjusted.

Note: State, regional and local estimates from past months (for all tables pages 11-13) may be revised from figures previously published.

Industry

Industry	Jobs* (Thousands)			Percent Change: From**		Production Workers Hours and Earnings					
	June 2014	May 2014	June 2013	May 2014	June 2013	Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
						June 2014	June 2013	June 2014	June 2013	June 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	2,873.1	2,837.4	2,819.3	1.3%	1.9%	—	—	—	—	—	—
GOODS-PRODUCING	445.9	433.7	428.6	2.8	4.0	—	—	—	—	—	—
Mining and Logging	7.7	7.3	7.2	6.0	7.9	—	—	—	—	—	—
Construction	118.6	111.4	110.2	6.5	7.6	—	—	—	—	—	—
Specialty Trade Contractors	73.4	69.5	68.6	5.6	7.1	\$1,059.53	\$1,248.83	37.8	41.6	\$28.03	\$30.02
Manufacturing	319.6	315.1	311.1	1.4	2.7	842.94	823.78	42.0	41.5	20.07	19.85
Durable Goods	204.6	201.2	198.2	1.7	3.2	850.54	829.09	43.0	41.6	19.78	19.93
Wood Product Manufacturing	10.7	10.4	10.7	2.9	0.0	—	—	—	—	—	—
Fabricated Metal Production	43.5	42.7	41.9	2.1	3.9	—	—	—	—	—	—
Machinery Manufacturing	32.0	32.0	32.5	0.1	-1.6	—	—	—	—	—	—
Computer and Electronic Product	45.4	45.0	45.6	1.0	-0.3	—	—	—	—	—	—
Navigational, Measuring, Electromedical and Control	25.1	24.8	24.9	1.3	1.0	—	—	—	—	—	—
Transportation Equipment	12.0	11.9	11.3	1.2	6.6	—	—	—	—	—	—
Medical Equipment and Supplies Manufacturing	15.3	15.2	15.4	0.3	-0.6	—	—	—	—	—	—
Nondurable Goods	115.0	113.9	113.0	1.0	1.8	830.62	814.44	40.4	41.3	20.56	19.72
Food Manufacturing	47.0	46.5	45.6	1.0	3.0	—	—	—	—	—	—
Paper Manufacturing	32.6	32.4	33.6	0.5	-2.9	—	—	—	—	—	—
Printing and Related	23.5	23.5	23.6	0.4	-0.4	—	—	—	—	—	—
SERVICE-PROVIDING	2,427.2	2,403.7	2,390.7	1.0	1.5	—	—	—	—	—	—
Trade, Transportation, and Utilities	518.9	511.7	515.3	1.4	0.7	—	—	—	—	—	—
Wholesale Trade	135.3	133.9	132.6	1.0	2.0	949.54	962.33	39.4	39.7	24.1	24.24
Retail Trade	290.5	283.4	290.0	2.5	0.2	408.05	394.73	28.2	28.5	14.47	13.85
Motor Vehicle and Parts	33.9	33.3	32.4	1.7	4.5	—	—	—	—	—	—
Building Material and Garden Equipment	27.8	27.5	27.7	1.1	0.4	—	—	—	—	—	—
Food and Beverage Stores	52.6	51.4	51.7	2.3	1.7	—	—	—	—	—	—
Gasoline Stations	24.0	23.6	23.6	1.8	1.4	—	—	—	—	—	—
General Merchandise Stores	60.2	60.0	61.2	0.5	-1.6	303.94	318.49	28.3	29.3	10.74	10.87
Transportation, Warehouse, Utilities	93.2	94.4	92.7	-1.3	0.5	—	—	—	—	—	—
Transportation and Warehousing	79.8	81.1	79.6	-1.6	0.2	607.07	637.69	35.9	37.8	16.91	16.87
Information	54.2	53.9	53.4	0.5	1.6	854.01	812.24	36.7	35.5	23.27	22.88
Publishing Industries	20.9	20.9	21.2	0.2	-1.2	—	—	—	—	—	—
Telecommunications	13.3	13.3	13.5	0.1	-0.9	—	—	—	—	—	—
Financial Activities	181.0	179.6	182.9	0.8	-1.0	—	—	—	—	—	—
Finance and Insurance	140.0	139.5	142.4	0.3	-1.7	928.85	1,001.05	36.1	37.2	25.73	26.91
Credit Intermediation	53.8	53.5	55.8	0.5	-3.5	756.36	796.05	36.0	36.6	21.01	21.75
Securities, Commodity Contracts, and Other	18.6	18.6	18.5	0.0	0.9	—	—	—	—	—	—
Insurance Carriers and Related	66.7	66.4	67.0	0.4	-0.5	—	—	—	—	—	—
Real Estate and Rental and Leasing	41.0	40.1	40.4	2.3	1.5	—	—	—	—	—	—
Professional and Business Services	361.1	353.3	348.7	2.2	3.6	—	—	—	—	—	—
Professional, Scientific, and Technical Services	140.0	137.8	135.3	1.5	3.5	—	—	—	—	—	—
Legal Services	19.1	18.8	19.2	1.5	-0.5	—	—	—	—	—	—
Accounting, Tax Preparation	14.6	14.7	14.1	-1.3	3.3	—	—	—	—	—	—
Computer Systems Design	32.9	32.5	32.0	1.4	2.8	—	—	—	—	—	—
Management of Companies and Enterprises	79.9	79.4	77.5	0.7	3.1	—	—	—	—	—	—
Administrative and Support Services	141.3	136.1	135.9	3.8	3.9	—	—	—	—	—	—
Educational and Health Services	497.4	501.0	486.2	-0.7	2.3	—	—	—	—	—	—
Educational Services	62.2	69.2	59.7	-10.1	4.1	—	—	—	—	—	—
Health Care and Social Assistance	435.2	431.8	426.5	0.8	2.0	—	—	—	—	—	—
Ambulatory Health Care	142.0	140.3	136.4	1.2	4.1	1,192.64	1,177.44	34.7	34.6	34.37	34.03
Offices of Physicians	67.5	66.8	66.5	1.0	1.4	—	—	—	—	—	—
Hospitals	105.8	105.4	105.0	0.4	0.8	—	—	—	—	—	—
Nursing and Residential Care Facilities	105.7	104.7	106.0	1.0	-0.2	425.10	413.80	29.5	29.1	14.41	14.22
Social Assistance	81.7	81.5	79.1	0.3	3.3	—	—	—	—	—	—
Leisure and Hospitality	269.7	260.1	265.4	3.7	1.6	—	—	—	—	—	—
Arts, Entertainment, and Recreation	49.1	43.7	45.4	12.6	8.1	—	—	—	—	—	—
Accommodation and Food Services	220.5	216.5	220.0	1.9	0.3	—	—	—	—	—	—
Food Services and Drinking Places	190.7	189.1	189.8	0.9	0.5	265.14	233.04	22.7	21.8	11.68	10.69
Other Services	117.5	118.9	119.3	-1.2	-1.6	—	—	—	—	—	—
Religious, Grantmaking, Civic, Professional Organizations	68.1	69.3	69.8	-1.7	-2.4	—	—	—	—	—	—
Government	427.5	425.2	419.6	0.5	1.9	—	—	—	—	—	—
Federal Government	31.1	31.0	31.2	0.4	-0.4	—	—	—	—	—	—
State Government	95.2	101.7	97.7	-6.3	-2.5	—	—	—	—	—	—
State Government Education	56.1	62.9	59.4	-10.8	-5.4	—	—	—	—	—	—
Local Government	301.1	292.5	290.6	2.9	3.6	—	—	—	—	—	—
Local Government Education	143.4	145.2	139.7	-1.3	2.6	—	—	—	—	—	—

Note: Not all industry subgroups are shown for every major industry category.

* Totals may not add because of rounding.

** Percent change based on unrounded numbers.

Source: Department of Employment and Economic Development, Current Employment Statistics, 2014.

Employer Survey of Twin Cities Nonfarm Payroll Jobs, Hours and Earnings

Numbers are unadjusted.

Note: State, regional and local estimates from past months (for all tables pages 11-13) may be revised from figures previously published.

Industry	Jobs*			Percent Change		Production Workers Hours and Earnings					
	(Thousands)			From**		Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	June 2014	May 2014	June 2013	May 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	1,850.7	1,832.7	1,818.4	1.0%	1.8%	—	—	—	—	—	—
GOODS-PRODUCING	258.8	252.4	251.1	2.5	3.1	—	—	—	—	—	—
Mining, Logging, and Construction	67.6	64.5	66.9	4.8	1.1	—	—	—	—	—	—
Construction of Buildings	15.7	14.8	14.0	5.8	11.9	—	—	—	—	—	—
Specialty Trade Contractors	45.1	43.2	44.4	4.4	1.7	\$1,256.08	\$1,307.50	38.9	41.8	\$32.29	\$31.28
Manufacturing	191.2	187.9	184.2	1.8	3.8	876.71	829.05	42.6	40.6	20.58	20.42
Durable Goods	131.5	129.0	126.6	1.9	3.9	871.05	849.00	43.1	40.7	20.21	20.86
Fabricated Metal Production	28.8	28.3	28.3	1.8	1.8	—	—	—	—	—	—
Machinery Manufacturing	19.4	19.3	19.8	0.5	-1.6	—	—	—	—	—	—
Computer and Electronic Product	36.0	35.6	35.7	1.0	0.9	—	—	—	—	—	—
Navigational, Measuring, Electromedical and Control	23.7	23.4	23.3	1.4	1.7	—	—	—	—	—	—
Medical Equipment and Supplies Manufacturing	14.0	14.0	14.2	0.0	-1.1	—	—	—	—	—	—
Nondurable Goods	59.7	58.8	57.6	1.4	3.6	889.04	791.84	41.7	40.4	21.32	19.6
Food Manufacturing	13.5	13.4	13.4	0.7	0.6	—	—	—	—	—	—
Printing and Related	15.0	15.0	15.0	0.3	0.3	—	—	—	—	—	—
SERVICE-PROVIDING	1,591.8	1,580.3	1,567.3	0.7	1.6	—	—	—	—	—	—
Trade, Transportation, and Utilities	318.4	316.2	322.2	0.7	-1.2	—	—	—	—	—	—
Wholesale Trade	82.2	82.2	82.7	0.0	-0.6	929.83	997.07	39.5	40.4	23.54	24.68
Merchant Wholesalers - Durable Goods	44.8	44.9	43.8	-0.1	2.3	—	—	—	—	—	—
Merchant Wholesalers - Nondurable Goods	24.9	24.7	25.1	0.8	-0.8	—	—	—	—	—	—
Retail Trade	175.5	171.7	177.6	2.2	-1.2	425.43	382.19	29.0	28.5	14.67	13.41
Food and Beverage Stores	30.0	29.2	29.4	2.7	2.1	—	—	—	—	—	—
General Merchandise Stores	37.5	37.4	37.6	0.3	-0.4	308.56	327.70	29.0	29.9	10.64	10.96
Transportation, Warehouse, Utilities	60.7	62.3	62.0	-2.6	-2.1	—	—	—	—	—	—
Utilities	7.7	7.8	7.8	-0.5	-0.3	—	—	—	—	—	—
Transportation and Warehousing	52.9	54.5	54.2	-2.8	-2.4	814.72	731.42	42.7	41.3	19.08	17.71
Information	38.6	38.5	38.7	0.2	-0.2	—	—	—	—	—	—
Publishing Industries	16.6	16.6	16.6	0.0	0.4	—	—	—	—	—	—
Telecommunications	9.5	9.5	9.5	-0.3	-0.2	—	—	—	—	—	—
Financial Activities	143.0	141.8	143.0	0.9	0.0	—	—	—	—	—	—
Finance and Insurance	109.3	108.8	110.2	0.5	-0.8	1,015.27	1,151.77	35.4	37.8	28.68	30.47
Credit Intermediation	37.8	37.6	39.0	0.5	-3.1	—	—	—	—	—	—
Securities, Commodity Contracts, and Other	16.9	16.9	16.5	0.1	2.9	—	—	—	—	—	—
Insurance Carriers and Related	53.9	53.3	53.7	1.1	0.4	—	—	—	—	—	—
Real Estate and Rental and Leasing	33.7	33.0	32.8	2.2	2.7	—	—	—	—	—	—
Professional and Business Services	284.0	277.3	278.4	2.4	2.0	—	—	—	—	—	—
Professional, Scientific, and Technical Services	109.3	107.9	107.7	1.3	1.5	—	—	—	—	—	—
Legal Services	15.9	15.7	16.1	1.4	-0.9	—	—	—	—	—	—
Architectural, Engineering, and Related	16.6	15.9	15.7	4.4	5.4	—	—	—	—	—	—
Computer Systems Design	26.9	26.4	26.5	1.7	1.6	—	—	—	—	—	—
Management of Companies and Enterprises	71.2	70.8	69.6	0.5	2.3	—	—	—	—	—	—
Administrative and Support Services	103.6	98.6	101.1	5.0	2.4	—	—	—	—	—	—
Employment Services	47.1	45.5	47.8	3.6	-1.6	—	—	—	—	—	—
Educational and Health Services	304.2	305.4	293.1	-0.4	3.8	—	—	—	—	—	—
Educational Services	40.5	45.0	39.4	-9.8	2.8	—	—	—	—	—	—
Health Care and Social Assistance	263.7	260.5	253.7	1.2	4.0	—	—	—	—	—	—
Ambulatory Health Care	85.4	84.3	81.3	1.2	5.0	—	—	—	—	—	—
Hospitals	61.8	61.4	61.0	0.6	1.3	—	—	—	—	—	—
Nursing and Residential Care Facilities	58.0	57.3	56.5	1.2	2.5	—	—	—	—	—	—
Social Assistance	58.6	57.5	54.9	1.9	6.8	—	—	—	—	—	—
Leisure and Hospitality	180.9	177.0	175.8	2.2	2.9	—	—	—	—	—	—
Arts, Entertainment, and Recreation	35.9	33.3	34.3	7.6	4.6	—	—	—	—	—	—
Accommodation and Food Services	145.0	143.7	141.5	0.9	2.5	300.35	263.11	24.3	23.1	12.36	11.39
Food Services and Drinking Places	131.1	130.5	127.8	0.5	2.6	291.22	254.93	23.6	22.6	12.34	11.28
Other Services	77.2	77.9	78.9	-0.9	-2.1	—	—	—	—	—	—
Repair and Maintenance	13.1	13.3	13.5	-1.5	-3.0	—	—	—	—	—	—
Religious, Grantmaking, Civic, Professional Organizations	43.1	43.1	43.8	0.0	-1.5	—	—	—	—	—	—
Government	245.5	246.0	237.2	-0.2	3.5	—	—	—	—	—	—
Federal Government	19.8	19.8	20.0	-0.1	-0.8	—	—	—	—	—	—
State Government	64.1	69.5	64.6	-7.8	-0.8	—	—	—	—	—	—
State Government Education	38.0	43.7	39.2	-12.9	-2.9	—	—	—	—	—	—
Local Government	161.6	156.7	152.6	3.1	5.9	—	—	—	—	—	—
Local Government Education	87.8	89.4	84.3	-1.9	4.1	—	—	—	—	—	—

Note: Not all industry subgroups are shown for every major industry category.

* Totals may not add because of rounding.

** Percent change based on unrounded numbers.

Source: Department of Employment and Economic Development, Current Employment Statistics, 2014.

Employer Survey

Industry

TOTAL NONFARM WAGE AND SALARY

GOODS-PRODUCING

Mining, Logging, and Construction
Manufacturing

SERVICE-PROVIDING

Trade, Transportation, and Utilities
Wholesale Trade
Retail Trade
Transportation, Warehouse, Utilities
Information
Financial Activities
Professional and Business Services
Educational and Health Services
Leisure and Hospitality
Other Services
Government

Duluth-Superior MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	134,432	133,043	133,987	1.0%	0.3%
GOODS-PRODUCING	17,197	15,869	16,715	8.4	2.9
Mining, Logging, and Construction	9,687	8,524	9,149	13.6	5.9
Manufacturing	7,510	7,345	7,566	2.2	-0.7
SERVICE-PROVIDING	117,235	117,174	117,272	0.1	0.0
Trade, Transportation, and Utilities	24,386	24,068	24,390	1.3	0.0
Wholesale Trade	3,175	3,114	3,192	2.0	-0.5
Retail Trade	15,382	15,224	15,248	1.0	0.9
Transportation, Warehouse, Utilities	5,829	5,730	5,950	1.7	-2.0
Information	1,418	1,401	1,435	1.2	-1.2
Financial Activities	5,511	5,485	5,509	0.5	0.0
Professional and Business Services	7,823	7,679	8,057	1.9	-2.9
Educational and Health Services	30,947	31,365	30,877	-1.3	0.2
Leisure and Hospitality	15,112	13,805	14,900	9.5	1.4
Other Services	6,575	6,484	6,590	1.4	-0.2
Government	25,463	26,887	25,514	-5.3	-0.2

Rochester MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	110,091	108,006	109,699	1.9%	0.4%
GOODS-PRODUCING	14,109	13,320	14,404	5.9	-2.0
Mining, Logging, and Construction	3,688	3,497	3,818	5.5	-3.4
Manufacturing	10,421	9,823	10,586	6.1	-1.6
SERVICE-PROVIDING	95,982	94,686	95,295	1.4	0.7
Trade, Transportation, and Utilities	16,947	16,718	16,573	1.4	2.3
Wholesale Trade	2,349	2,334	2,364	0.6	-0.6
Retail Trade	12,165	11,929	11,809	2.0	3.0
Transportation, Warehouse, Utilities	2,433	2,455	2,400	-0.9	1.4
Information	1,786	1,752	1,684	1.9	6.1
Financial Activities	2,620	2,630	2,561	-0.4	2.3
Professional and Business Services	5,549	5,521	5,445	0.5	1.9
Educational and Health Services	44,014	43,620	44,329	0.9	-0.7
Leisure and Hospitality	9,706	9,527	9,717	1.9	-0.1
Other Services	3,928	3,858	3,700	1.8	6.2
Government	11,432	11,060	11,286	3.4	1.3

Employer Survey

Industry

TOTAL NONFARM WAGE AND SALARY

GOODS-PRODUCING

Mining, Logging, and Construction
Manufacturing

SERVICE-PROVIDING

Trade, Transportation, and Utilities
Wholesale Trade
Retail Trade
Transportation, Warehouse, Utilities
Information
Financial Activities
Professional and Business Services
Educational and Health Services
Leisure and Hospitality
Other Services
Government

St. Cloud MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	105,701	106,112	102,797	-0.4%	2.8%
GOODS-PRODUCING	21,121	20,582	20,803	2.6	1.5
Mining, Logging, and Construction	5,769	5,534	5,511	4.2	4.7
Manufacturing	15,352	15,048	15,292	2.0	0.4
SERVICE-PROVIDING	84,580	85,530	81,994	-1.1	3.2
Trade, Transportation, and Utilities	20,964	20,779	20,433	0.9	2.6
Wholesale Trade	4,345	4,193	4,207	3.6	3.3
Retail Trade	13,153	13,070	12,910	0.6	1.9
Transportation, Warehouse, Utilities	3,466	3,516	3,316	-1.4	4.5
Information	1,711	1,684	1,733	1.6	-1.3
Financial Activities	4,563	4,531	4,598	0.7	-0.8
Professional and Business Services	9,322	9,253	8,774	0.7	6.2
Educational and Health Services	20,010	20,641	18,793	-3.1	6.5
Leisure and Hospitality	9,469	9,181	8,991	3.1	5.3
Other Services	3,666	3,557	3,621	3.1	1.2
Government	14,875	15,904	15,051	-6.5	-1.2

Mankato MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	55,493	55,525	54,625	-0.1%	1.6%
GOODS-PRODUCING	10,289	10,124	9,987	1.6	3.0
Mining, Logging, and Construction	--	--	--	--	--
Manufacturing	--	--	--	--	--
SERVICE-PROVIDING	45,204	45,401	44,638	-0.4	1.3
Trade, Transportation, and Utilities	--	--	--	--	--
Wholesale Trade	--	--	--	--	--
Retail Trade	--	--	--	--	--
Transportation, Warehouse, Utilities	--	--	--	--	--
Information	--	--	--	--	--
Financial Activities	--	--	--	--	--
Professional and Business Services	--	--	--	--	--
Educational and Health Services	--	--	--	--	--
Leisure and Hospitality	--	--	--	--	--
Other Services	--	--	--	--	--
Government	9,214	8,804	9,545	4.7	-3.5

Employer Survey

Industry

TOTAL NONFARM WAGE AND SALARY

GOODS-PRODUCING

Mining, Logging, and Construction
Manufacturing

SERVICE-PROVIDING

Trade, Transportation, and Utilities
Wholesale Trade
Retail Trade
Transportation, Warehouse, Utilities
Information
Financial Activities
Professional and Business Services
Educational and Health Services
Leisure and Hospitality
Other Services
Government

Fargo-Moorhead MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	138,256	137,904	132,356	0.3%	4.5%
GOODS-PRODUCING	20,882	19,413	18,844	7.6	10.8
Mining, Logging, and Construction	10,647	9,342	8,699	14.0	22.4
Manufacturing	10,235	10,071	10,145	1.6	0.9
SERVICE-PROVIDING	117,374	118,491	113,512	-0.9	3.4
Trade, Transportation, and Utilities	29,226	29,431	29,004	-0.7	0.8
Wholesale Trade	9,290	9,259	9,030	0.3	2.9
Retail Trade	15,026	15,225	15,224	-1.3	-1.3
Transportation, Warehouse, Utilities	4,910	4,947	4,750	-0.8	3.4
Information	3,337	3,319	3,249	0.5	2.7
Financial Activities	10,025	9,948	9,619	0.8	4.2
Professional and Business Services	16,861	16,339	15,454	3.2	9.1
Educational and Health Services	21,570	21,753	20,778	-0.8	3.8
Leisure and Hospitality	13,924	14,104	13,302	-1.3	4.7
Other Services	5,111	5,231	5,166	-2.3	-1.1
Government	17,320	18,366	16,940	-5.7	2.2

Grand Forks-East Grand Forks MSA

Jobs % Chg. From

	June 2014	May 2014	June 2013	May 2014	June 2013
TOTAL NONFARM WAGE AND SALARY	55,957	56,065	55,902	-0.2%	0.1%
GOODS-PRODUCING	7,068	6,759	6,979	4.6	1.3
Mining, Logging, and Construction	3,589	3,237	3,293	10.9	9.0
Manufacturing	3,479	3,522	3,686	-1.2	-5.6
SERVICE-PROVIDING	48,889	49,306	48,923	-0.9	-0.1
Trade, Transportation, and Utilities	12,129	12,173	12,005	-0.4	1.0
Wholesale Trade	2,046	2,016	2,034	1.5	0.6
Retail Trade	8,165	8,208	8,022	-0.5	1.8
Transportation, Warehouse, Utilities	1,918	1,949	1,949	-1.6	-1.6
Information	620	612	593	1.3	4.6
Financial Activities	1,724	1,729	1,715	-0.3	0.5
Professional and Business Services	2,774	2,769	2,964	0.2	-6.4
Educational and Health Services	9,836	9,867	9,698	-0.3	1.4
Leisure and Hospitality	5,730	5,868	5,831	-2.4	-1.7
Other Services	2,079	2,071	2,038	0.4	2.0
Government	13,997	14,217	14,079	-1.6	-0.6

Source: Department of Employment and Economic Development, Current Employment Statistics, and North Dakota Job Service, 2014.

Minnesota Economic Indicators

Highlights

The **Minnesota Index** increased 0.2 percent for the seventh straight month in June. The U.S. Index increased 0.3 percent for the fifth month in a row last month. Minnesota's index has lagged behind the U.S. index since February. Slower job growth during the first few months of the year slowed the Minnesota index. Minnesota's index advanced 1.2 percent over the first half of the year compared to a 1.5 percent advance for the U.S. index. Minnesota's index increased 1.3 percent over the first half of 2013 while the U.S. index increased 1.7 percent.

Despite the lower readings during the first half of 2013, Minnesota's real GDP increased 2.8 percent in 2013, significantly outpacing the 1.9 percent national increase. Private sector GDP growth in Minnesota was even stronger last year, climbing 3.1 percent compared to the U.S. private sector GDP gain of 2.3 percent. Minnesota's real GDP expansion last year ranked 13th highest among the states. The Minnesota Index is a monthly proxy for the state's economic growth but is subject to significant revisions as more reliable data become available.

Minnesota's adjusted **Wage and Salary Employment** recorded its second straight month of solid growth in June, adding 8,500 workers. Private sector employment increased 4,600 while public sector jobs jumped 3,900. All job gains were on the service-providing side as goods-producing employment dropped slightly. Educational and Health Services along with Trade, Transportation, and Utilities added the most jobs. Job cutbacks were significant in Other

Services. Staffing additions in local government units accounted for all public sector job expansion.

Minnesota job growth over the year raced up to 1.9 percent, matching the national pace for the first time since February. Minnesota's over-the-year job growth rate through the first six months of 2014 has averaged 1.7 percent which also matched the U.S. growth rate. Minnesota's annual average job growth rate was also 1.7 percent as was the 2013 U.S. job growth.

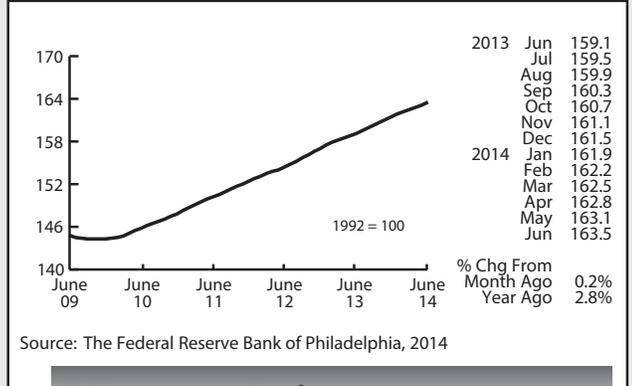
Minnesota's adjusted online **Help-Wanted Ads** slipped slightly in June, dipping 1.0 percent. U.S. help-wanted advertising climbed 3.2 percent.

Minnesota's share of online help-wanted ads came in at 2.4 percent in June which is still higher than the state's 2.0 percent share of national employment. The higher help-wanted share suggests that labor demand in Minnesota continues to be at least as strong as, if not stronger than, national demand.

Minnesota's **Purchasing Managers' Index (PMI)** climbed for its sixth time in the last eight months in June, soaring to its third highest reading on record. June's 70.1 level implies that Minnesota manufactures are extremely optimistic about business activity over the next few months. The nine-state Mid-American Index which includes Minnesota was 60.6 in June while the corresponding national index was 55.3. The slight loss of manufacturing jobs in June was surprising since the employment component of the index continues to

run strong, reaching 59.6 in June. The upward direction of Minnesota's Purchasing Managers Index over the last couple of months indicates that manufacturing hiring will be picking up in the near future.

Adjusted **Manufacturing Hours** remained at an elevated level in



Source: The Federal Reserve Bank of Philadelphia, 2014

Minnesota Index

June, offering more evidence that Minnesota's manufacturing sector has shifted gears and is expanding at a fast clip. Manufacturing may be adding workers through the temporary-help industry. Workers added through temp agencies would not be showing up in manufacturing payroll numbers. After dropping during the previous two months, **Manufacturing Earnings** soared to an \$844.69 average weekly paycheck in June. That is the highest paycheck since October 2010.

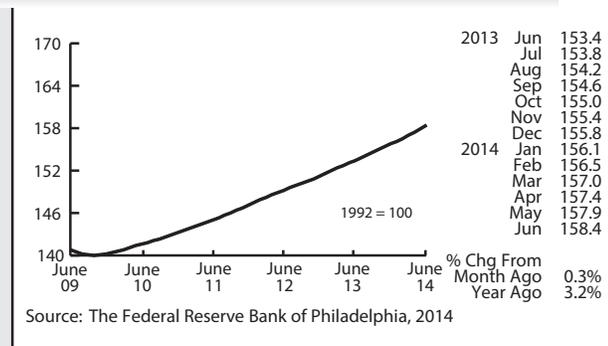
After rising during the previous three months, the **Minnesota Leading Index** tailed off in June, sliding to 1.43. June's reading is roughly equal to the 1.34 average monthly reading over the last five years. The 1.4 level translates into a predicted 1.4 percent increase in the state's economic activity over the next six months.

Adjusted **Residential Building Permits** inched up in June to 1,731. Compared to last June's level — 1,178 — building permits are up but not as much as was hoped for at the start of the year. The recovery road for Minnesota's home-builders continues to be a long slow climb.

Adjusted **Initial Claims for Unemployment Benefits (UB)** dipped slightly in June, finishing below 20,000 for the third time this year. Initial claims averaged 20,400 during the first half of the year compared to 22,000 during the same period last year. That's a 7.2 percent decline which points towards Minnesota's job growth remaining in the 1.6 — 1.8 percent range for the rest of the year.

by Dave Senf

United States Index

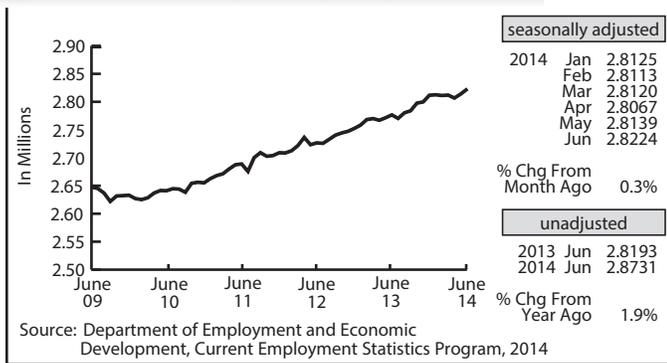


Source: The Federal Reserve Bank of Philadelphia, 2014

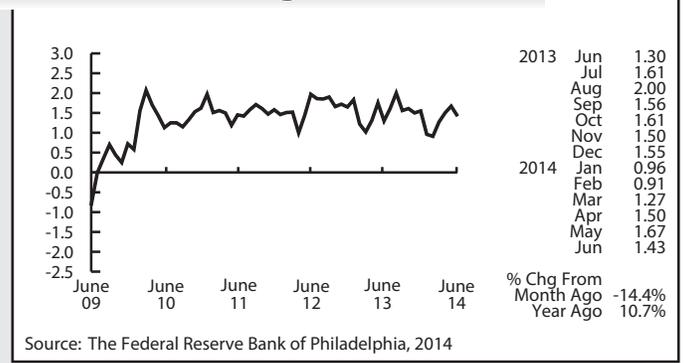
Note: All data except for Minnesota's PMI have been seasonally adjusted. See the feature article in the Minnesota Employment Review, May 2010, for more information on the Minnesota Index.

Minnesota Economic Indicators

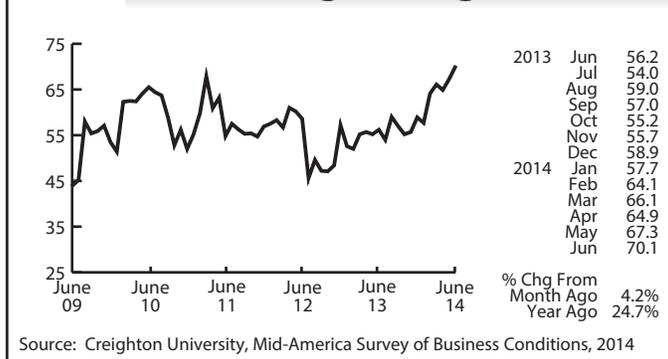
Wage and Salary Employment



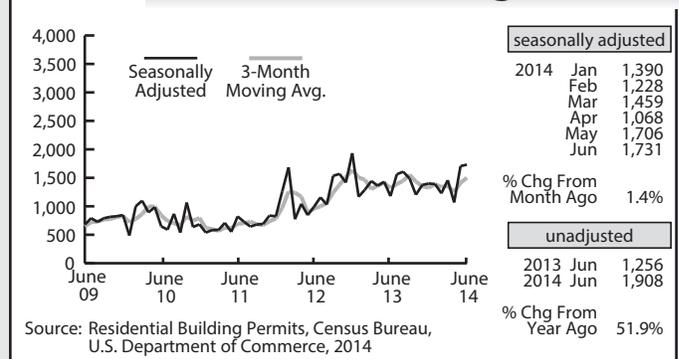
Minnesota Leading Index



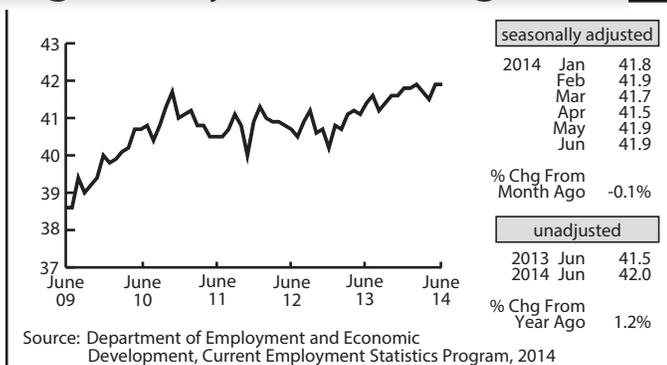
Purchasing Managers' Index



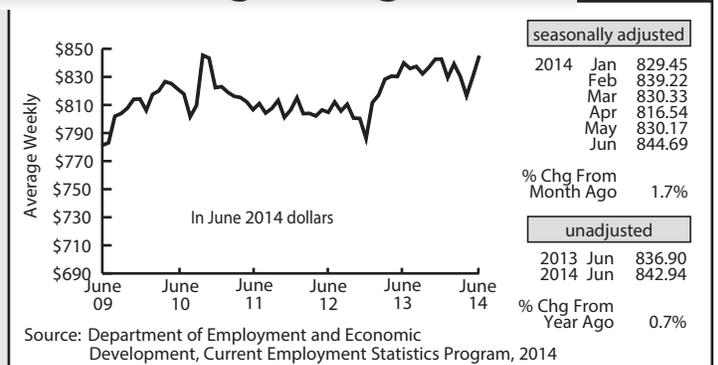
Residential Building Permits



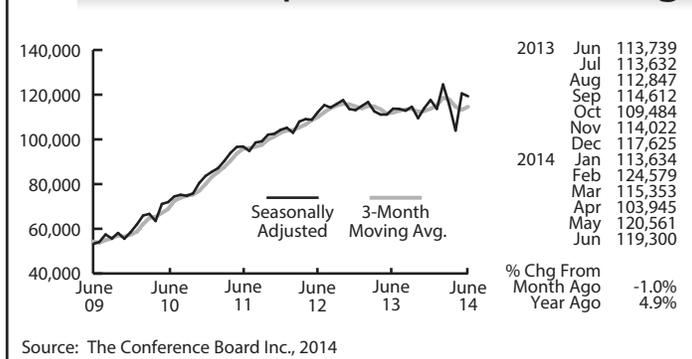
Average Weekly Manufacturing Hours



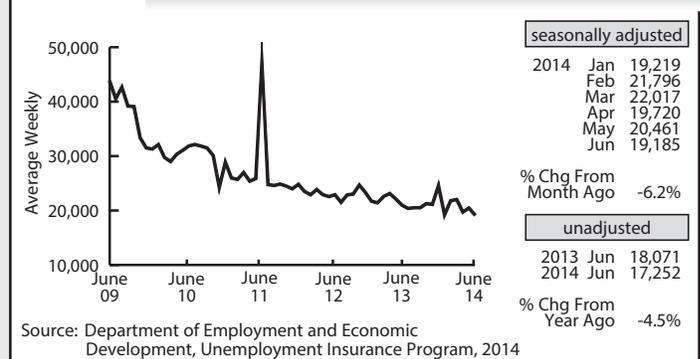
Manufacturing Earnings



Online Help-Wanted Advertising



Initial UB Claimants



Review

Minnesota Employment



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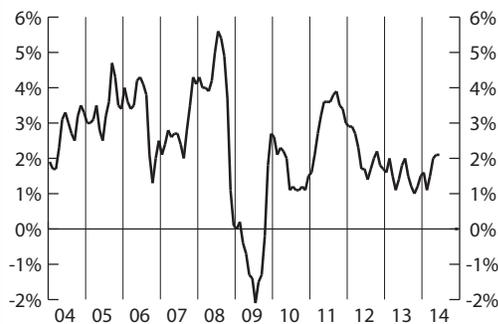
U.S. Consumer Price Index for All Urban Consumers (CPI-U)

The CPI-U increased 0.3 percent in June on a seasonally adjusted basis. The increase was driven by the gasoline index, which rose 3.3 percent. Other energy indices were mixed. The food index rose slightly. The index for all items less food and energy also rose slightly in June, increasing 0.1 percent after a 0.3 percent increase in May.

The all items index increased 2.1 percent over the last 12 months before seasonal adjustment. The index for all items less food and energy rose 1.9 percent over the last 12 months, a slight decline from the 2.0 percent figure last month.

See the official BLS news release:
www.bls.gov/news.release/pdf/cpi.pdf

Percent Change From One Year Ago



For more information
on the U.S. CPI
or the semi-annual
Minneapolis-St. Paul CPI, call:
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What's Going On?

Angel Tax Credit Program Targets Underserved Groups

The Minnesota Angel Tax Credit Program is spreading its wings.

The state program that has attracted nearly \$250 million for hundreds of high-tech startups in Minnesota since 2010 has been extended for another two years — and will focus much of its efforts on helping businesses owned by women, members of minority groups and entrepreneurs located in Greater Minnesota.

Half of the \$120 million in investments that the program hopes to attract over the next two years will be reserved for businesses owned by people in one of those three groups. Any leftover investments not tapped by those businesses by the Sept. 1 deadline each year will go to firms outside those groups.

The Angel Tax Program was created four years ago to get money into the hands of high-tech startups that need cash because they are considered too risky for conventional bank loans.

For more details, see
www.mn.gov/deed/angelcredit.

Minnesota
Department of Employment and Economic Development



Minnesota Job Outlook to 2022

Total jobs in Minnesota are projected to increase by 205,000 between 2012 and 2022, reaching over 3.1 million jobs by 2022, according to recently released 2012-2022 Minnesota employment projections.¹ The projected growth is seven times as large as job growth over the previous 10 years (2002-2012) when the state added just 29,000 jobs as the state's economy struggled through the most severe recession since the Great Depression. Recovery from the steep job losses suffered during the Great Recession has been slow with the pre-recession peak in 2007 expected to be passed in 2014. Projected jobs include wage and salary employment as well as self-employment with all jobs measured on an annual average basis. Wage and salary jobs reached the pre-recession peak in September 2013, but self-employment, which declined significantly more than wage and salary employment during the recession, has been much slower to rebound.

Job growth has averaged 1.4 percent since 2011 and will continue around this pace for the next several years before waning during the second half of the decade. Baby-boom retirements will slow labor force growth later in the decade, hampering job growth. The moderate job growth combined with slower labor force growth will push Minnesota's unemployment down well below 4 percent within the next few years.

Job growth over the next decade will average 0.7 percent a year or about half the rate experienced during the last couple of years. Job growth between 2012 and 2017 will be similar to recent years but will fall off significantly from 2017-2022 as labor shortages limit job expansion. After adding roughly 46,000 jobs each year between 1992 and 2002, then adding fewer than 3,000 jobs annually between 2002 and 2012, the state is projected to add an average of 20,500 jobs annually over the next decade with most of the growth occurring during the next five years.

Minnesota's long-term industry and occupational employment projections (10-year timeframe) rely heavily on national industry and occupational employment projections produced by the U.S. Department of Labor's Bureau of Labor Statistics (BLS).² Minnesota, along with most other states, customizes national projections to reflect state specific industrial, occupational, and demographic traits. Historical employment trends for 290 industries in Minnesota are compared to corresponding national industry employment trends using statistical models (time-series and regression models). The models are used with BLS's projections of 2022 national industry employment to produce industry projections for Minnesota.

The key macroeconomic assumptions driving the 2012-2022 national industry projections are:

1. GDP (Gross Domestic Product) growth will average 2.6 percent annually during the 10-year period, up from the 1.6 percent annual average experienced during the previous decade, but slower than the 3.4 percent growth achieved between 1992 and 2002.
2. Productivity growth will increase slightly over the next 10 years, averaging 2.0 percent between 2012 and 2022 compared to the 1.9 percent average experienced between 2002 and 2012. The 2.0 percent annual productivity gain will be down from the 2.3 percent achieved between 1992 and 2002.
3. U.S. labor force growth will inch down over the next 10 years averaging 0.5 percent a year compared to the 0.7 percent annual average of the previous 10 years. Labor force growth between 1992 and 2002 averaged 1.2 percent annually.

¹Detailed 2012 – 2022 occupational and industry employment projections for Minnesota can be found at <https://apps.deed.state.mn.us/lmi/projections>.

²The BLS's main projection website is www.bls.gov/emp/home.htm.

4. Unemployment will average 5.4 percent in 2022, a huge improvement over the 8.1 percent averaged in 2012 and the same as in 2002.

Projected industry employment is converted into occupational employment projections based on industry staffing patterns (distribution of industry employment across occupations). Staffing patterns for Minnesota industries are developed from estimates of occupational employment collected by the Minnesota Salary Survey, a product



of the Occupational Employment Statistics (OES) program.³ Shifts in staffing patterns between 2012 and 2022 across industries are also projected as part of the BLS national projections. These shifts in staffing patterns are used in Minnesota's projections. For example, accountants and auditors jobs (SOC 13-2011) accounted for 45.1 percent of the accounting industry's (NAICS 5412) workforce in 2012. By 2022 that percentage is expected to be 48.1 percent.

The main goal of employment projections is to provide details on projected job growth and employment prospects for 809 occupations in Minnesota. Projections of future job growth at the national, state, and substate level are widely used in career guidance, in planning education and training programs, and in workforce development efforts in the private and public sectors.

Changes in demand for goods and services, productivity advances, technological innovations, and shifts in business practices all combine to alter the mix of occupations that employers will be looking to fill over the next 10 years. Another important factor in what occupations will be in demand over the next decade is the retirement wave of the baby boomers. Job openings arising from retirements are always higher than job openings created by employment growth.

The expected expansion of health care services over the next 10 years is a prime example of how changes in the demand for goods and services fuel demand for particular occupations. As the baby boomers enter their senior years, demand for health care services will increase steadily. Increasing health care service expenditures will in turn boost the demand for workers in health care-related jobs like registered nurses, pharmacists, dental assistants, personal care aides, and home health aides both nationally and in Minnesota.

On the other hand almost half of the occupations included in the office and administrative support occupational group are expected to shrink. Automation of duties will continue to increase productivity thereby reducing demand for employees in these occupations. The declining occupations include: stock clerks and order fillers, data entry keyers, reservation and transportation ticket agents, and switchboard operators.

A majority of occupations in Minnesota will experience employment growth over the next 10 years. Eighteen occupations are expected to see no change in the number of workers. The other 159 occupations (roughly 20 percent of all occupations) are projected to decline.

The 159 shrinking occupations combined together accounted for roughly 408,000 jobs or 14 percent of total jobs in 2012. The number of jobs in these occupations is projected to tail off to 384,000 by 2022, an aggregated 6 percent drop. Declining occupations are concentrated in the office and administrative support, production, and management occupational groups. Almost all of the job loss in the managerial group is expected to be farmers, ranchers, and other agricultural managers. Minnesota farmers (46,500 in 2012), are projected to slip to 44,300 by 2022, and are included in the managerial occupation group. Other occupations expected to see their numbers shrink the most over the next 10 years are stock clerks and order fillers, postal service mail carriers, data entry keyers, cashiers, and executive secretaries and administrative assistants.

Minnesota's total employment is projected to climb 7.0 percent over the 2012-2022 period compared to the 10.8 percent projected for U.S. employment over the same time period. Minnesota's employment growth trailed the U.S. pace during the previous 10 years, 1.0 percent for

³Information on the Minnesota Salary Survey is available at <http://mn.gov/deed/data/data-tools/oes.jsp>

Table 1

Minnesota Employment Outlook by Major Occupational Group				
Major Occupational Group	2012 Estimated Employment	2022 Projected Employment	2012 - 2022 Percent Change	2012 - 2022 Numeric Change
	2,915,400	3,120,400	7.0	205,000
Service	609,041	680,396	11.7	71,355
Professional and related	614,894	668,410	8.7	53,516
Management, business, and financial	376,925	398,372	5.7	21,447
Construction and extraction	101,738	119,999	17.9	18,261
Sales and related	289,184	301,800	4.4	12,616
Office and administrative support	419,024	428,236	2.2	9,212
Transportation and material moving	170,769	178,050	4.3	7,281
Installation, maintenance, and repair	96,776	103,230	6.7	6,454
Production	220,698	225,578	2.2	4,880
Farming, fishing, and forestry	16,352	16,329	-0.1	-23

the state compared to 2.2 percent nationwide.

The two largest major occupational groups in Minnesota — professional and related occupations and service occupations — will add the most jobs from 2012 to 2022 (see Table 1). These two major occupational groups, which tend to have occupations at the opposite ends of the educational attainment and earnings range, are projected to account for 61 percent of all employment growth over the next 10 years.

The fastest growing occupational group will be construction and extraction jobs. This group, fueled by a recovering construction industry, is anticipated to expand by over 17.9 percent or more than twice as fast as the overall rate of job growth. The six-year home building collapse pushed construction employment down by nearly 30 percent from its record high in 2005. The gradual home-building rebound will increase construction employment over the next 10 years but not to the housing bubble level in 2005.

All major occupational groups except farming, fishing, and forestry are expected to add jobs between 2012 and 2022. Even production occupations

which are concentrated in Minnesota's manufacturing sector are expected to increase although manufacturing employment is expected to decline slightly. Minnesota's manufacturing employment is projected to decline by 1.3 percent compared to a projected 4.6 percent drop for U.S. manufacturing between 2012 and 2022. Production jobs nationwide are projected to expand 0.8 percent over the time period while in Minnesota the increase is projected to be 2.2 percent. Most of the 5,000 job increase in production occupations will occur in the employment services industry (NAICS 5613) as Minnesota manufacturing companies increasingly turn to temporary staffing agencies to meet their staffing demands.

Almost half of office and administrative support occupations are expected to see employment numbers shrink over the next 10 years, but other occupations within the group which are employed across many industries will increase in numbers as the economy grows. The expanding office and administrative support occupations will add 19,200 positions over the next 10 years, but that job growth will be offset by the loss of 10,000 positions in the shrinking occupations.

Only three occupational groups will experience job growth above overall job growth over the next 10 years — construction and extraction, service, and professional and related. Management, business and financial jobs along with installation, maintenance and repair jobs will expand slightly slower than average job growth. Sales and related occupations will expand 4.4 percent with just over half of the projected increase occurring in retail salesperson positions. Farming, fishing, and forestry jobs will essentially be the same in 2022 as they are today.

Job growth is predicted to be concentrated in the 305 occupations projected to grow faster than overall employment. These fast growing occupations are anticipated to account for roughly 80 percent of new jobs. The rest of employment expansion will occur in the other 327 occupations expected to add workers during the next 10 years but at a slower pace than the 7 percent projected average. Roughly 24,100 positions are expected to be lost across 159 shrinking occupations. The declining occupations accounted for 14 percent of all employment in 2012 and are expected to account for 12.3 percent of all jobs by 2022.

Table 2

Fastest Growing Occupations		
	2012 - 2022 Percent Change	2012 - 2022 Numeric Change
Personal Care Aides	44.7	22,595
Physician Assistants	34.5	571
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	33.3	270
Helpers—Carpenters	32.9	169
Brickmasons and Blockmasons	31.9	437
Interpreters and Translators	31.4	468
Diagnostic Medical Sonographers	31.1	430
Cement Masons and Concrete Finishers	30.7	900
Plasterers and Stucco Masons	30.1	239
Meeting, Convention, and Event Planners	29.8	582
Home Health Aides	29.3	10,131
Medical Equipment Repairers	26.8	351
Statisticians	26.2	182
Nurse Practitioners	26.1	721
Actuaries	25.6	208
Biochemists and Biophysicists	25.2	142
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	25.2	400
Substance Abuse and Behavioral Disorder Counselors	25.0	489
Crane and Tower Operators	24.7	222
Paving, Surfacing, and Tamping Equipment Operators	24.4	315
Physical Therapist Assistants	24.4	265
Medical Secretaries	24.3	1,914
Skincare Specialists	23.9	272
Magnetic Resonance Imaging Technologists	23.9	199
Veterinary Technologists and Technicians	23.8	412
Medical and Clinical Laboratory Technicians	23.4	767
Cardiovascular Technologists and Technicians	23.2	213
Carpenters	22.9	4,491
Physical Therapists	22.7	779
Phlebotomists	22.5	551
Refuse and Recyclable Material Collectors	22.3	599
Market Research Analysts and Marketing Specialists	22.1	2,511
Anesthesiologists	21.6	285
Ophthalmic Medical Technicians	21.3	144
Surgeons	21.2	209
Credit Counselors	21.0	215
Health Technologists and Technicians, All Other	20.8	314
Radiologic Technologists	20.7	796
Operations Research Analysts	20.2	325
Glaziers	20.0	110
Structural Iron and Steel Workers	19.9	110
Medical Equipment Preparers	19.8	337
Information Security Analysts	19.7	261
Septic Tank Servicers and Sewer Pipe Cleaners	19.7	106
Medical Assistants	19.7	1,693
Telecommunications Line Installers and Repairers	19.7	325
Logisticians	19.6	498
Occupational Therapy Assistants	19.6	114
Plumbers, Pipefitters, and Steamfitters	19.1	1,520
Mental Health Counselors	19.1	430

The top 50 occupations, in terms of the number of workers employed, accounted for approximately 50 percent of all employment in Minnesota in 2012. The largest occupations range from retail salespersons (85,800 jobs) to software developers — applications (12,900). Employment growth in these large occupations will account for 57 percent of the new jobs. Four of the largest occupations, however, are expected to see their workforce numbers shrink — farmers, ranchers, and other agricultural managers, stock clerks and order fillers, cashiers, and executive secretaries and executive administrative assistants.

The top 50 fastest-growing occupations among occupations with employment of more than 500 workers in 2012 combined for just over 7 percent of the 2012 employment base but are anticipated to account for just under 30 percent of jobs created over the next 10 years. These fast-growing occupations are projected to grow by 19 percent or higher or at rates nearly three times or higher than overall job growth.

As presented above, projected employment growth can be viewed from two perspectives: percent change and numerical change. Some occupations, which start with a large number of workers in 2012, are projected to grow slower than overall employment growth but will add large number of workers by 2022. Other occupations, which have relatively small numbers of worker in 2012, are projected to grow rapidly over the next 10 years but will add relatively few new jobs. The distinction between occupations with fast employment growth and occupations expected to add the most jobs is apparent when the 50 fastest-growing occupations (see Table 2) are compared to the 50 occupations expected to add the most jobs (see Table 3).

Only seven occupations — carpenters, home health aides, market research analysts, medical assistants, medical



secretaries, personal care aides, and plumbers, pipefitters, and steamfitters — make both lists. Fast-growing occupations tend to be either health care or construction occupations. Occupations adding the most jobs tend to be occupations that are employed across most industries, have a relative large base of workers in 2012, and are projected to experience average employment growth over the next 10 years.

Job opportunities tend to be better in occupations that are growing, but new openings created by employment growth are only part of the future job opportunity picture. The chance of scoring a job in a particular occupation also depends on how many workers are leaving the occupation and on how many job seekers are looking to enter that occupation.

There were an estimated 85,800 workers employed in the Minnesota's largest occupation, retail salespersons in 2012. By 2022 the state is expected have nearly 92,500 retail salespersons. The 6,700 new retail salesperson jobs expected over the next 10 years will represent 7 percent of all retail salesperson jobs in 2022, the other 83 percent of retail salesperson jobs already exist.

Many of the 85,800 individuals working as retail salespersons in 2012,

however, will not be working as retail salespersons in 2022. Workers will switch occupations, retire, or leave the labor force for other reasons thereby creating job openings. An estimated 29,300 net replacement openings for retail salespersons will develop during the next 10 years as current retail salesperson leave the occupation. For most occupations the number of job openings arising from the need to replace workers, net replacement openings, is projected to be higher than job openings from employment growth.

Even occupations that are expected to decline in numbers over the next 10 years will have replacement openings. Fewer postal service mail carriers are projected to be employed in Minnesota in 2022 than in 2012 (6,000 vs. 4,400), but many of the men and women working as postal service mail carriers in 2022 will have been hired over the last 10 years, filling mail carriers jobs that opened as workers moved to other occupations or retired. More than 2,000 net replacement mail carriers job openings will need to be filled over the next 10 years.

Because of the importance of replacement needs, estimates of net replacement openings for each occupation over the next 10 years are included in the 2012-

Table 3

Occupations Adding the Most Jobs

	2012 - 2022 Percent Change	2012 - 2022 Numeric Change
Personal Care Aides	44.7	22,595
Home Health Aides	29.3	10,131
Registered Nurses	16.9	9,477
Retail Salespersons	7.8	6,655
Combined Food Preparation and Serving Workers, Including Fast Food	9.7	5,465
Carpenters	22.9	4,491
Childcare Workers	13.0	4,006
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	8.2	3,777
Licensed Practical and Licensed Vocational Nurses	18.6	3,239
Customer Service Representatives	6.7	3,218
General and Operations Managers	7.7	2,836
Social and Human Service Assistants	15.6	2,825
Bookkeeping, Accounting, and Auditing Clerks	7.1	2,779
Nursing Assistants	9.1	2,742
Maids and Housekeeping Cleaners	10.0	2,742
Heavy and Tractor-Trailer Truck Drivers	7.1	2,543
Market Research Analysts and Marketing Specialists	22.1	2,511
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	10.2	2,463
Cooks, Restaurant	9.2	2,271
Computer Systems Analysts	17.0	2,227
Medical Secretaries	24.3	1,914
Construction Laborers	16.8	1,862
Accountants and Auditors	7.2	1,854
Electricians	16.0	1,740
Medical Assistants	19.7	1,693
Sales Representatives, Services, All Other	10.9	1,676
Management Analysts	13.1	1,534
First-Line Supervisors of Office and Administrative Support Workers	6.4	1,528
Plumbers, Pipefitters, and Steamfitters	19.1	1,520
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	4.8	1,499
Assemblers and Fabricators, All Other	8.8	1,454
Operating Engineers and Other Construction Equipment Operators	16.9	1,408
Landscaping and Groundskeeping Workers	8.3	1,390
Software Developers, Applications	10.7	1,379
Laborers and Freight, Stock, and Material Movers, Hand	4.1	1,363
First-Line Supervisors of Construction Trades and Extraction Workers	17.7	1,286
Business Operations Specialists, All Other	4.9	1,277
Machinists	11.7	1,264
Teacher Assistants	3.8	1,259
Office Clerks, General	2.1	1,219
Computer User Support Specialists	11.0	1,198
Painters, Construction and Maintenance	18.0	1,194
Industrial Machinery Mechanics	18.0	1,152
Maintenance and Repair Workers, General	5.8	1,149
Receptionists and Information Clerks	5.4	1,135
First-Line Supervisors of Food Preparation and Serving Workers	7.6	1,101
Billing and Posting Clerks	11.3	1,096
Food Servers, Nonrestaurant	16.7	1,076
Medical and Health Services Managers	17.4	1,055
First-Line Supervisors of Retail Sales Workers	4.2	1,037

2022 employment projections for Minnesota. Net replacement openings, entrants minus separations, are based on nationwide census data which track the entrants and separations of an occupation by age cohorts. The net replacement opening estimates understate the total number of job openings in an occupation over the next 10 years but are the best available estimates of job openings available to new labor force entrants.

In addition to the 205,000 job openings projected to be created through employment growth over the next 10 years, roughly 674,000 net replacement openings are projected. Occupations with high number of net replacement openings tend to be occupations with large employment bases in 2012 and high turnover rates (see Table 4). Nearly 90 percent of the occupations are projected to have more net replacement openings than

openings from employment growth. Net replacement openings should be considered when exploring the future prospects of any occupation. The need to fill replacement openings will only increase over the next decade as the wave of baby boomers retiring swamps Minnesota's job market.

by Dave Senf
Labor Market Information Office
Minnesota Department of Employment
and Economic Development

Table 4

Most Net Replacement Openings		
	Net Replacement Openings 2012 - 2022	Job Openings from Employment Growth 2012 - 2022
Retail Salespersons	29,346	6,655
Cashiers	25,695	0
Waiters and Waitresses	23,393	515
Combined Food Preparation and Serving Workers, Including Fast Food	21,428	5,465
Customer Service Representatives	13,060	3,218
Office Clerks, General	12,208	1,219
Registered Nurses	10,848	9,477
Stock Clerks and Order Fillers	10,442	0
Laborers and Freight, Stock, and Material Movers, Hand	10,203	1,363
Childcare Workers	9,073	4,006
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	8,682	3,777
Accountants and Auditors	7,622	1,854
Teacher Assistants	7,539	1,259
Farmers, Ranchers, and Other Agricultural Managers	7,502	0
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	7,350	0
General and Operations Managers	6,896	2,836
Home Health Aides	6,566	10,131
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	6,118	1,499
Heavy and Tractor-Trailer Truck Drivers	5,747	2,543
Nursing Assistants	5,741	2,742

Sources of Job Churn in Minnesota

by Mustapha Hammida
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The Minnesota labor market regularly experiences a significant amount of job creation and destruction. In 2012 employers reallocated about 300,000 jobs on average each quarter, according to the Minnesota Business Employment Dynamics. This is a natural outcome of the employers' demand for and employees' supply of labor continuously interacting with each other to create or terminate jobs. Jobs are created as firms expand, open as a startup, or reopen after a short closure. Conversely, jobs are terminated as firms contract, close for good, or close for a temporary duration. However, little is known about how these forces drive job creation and destruction in Minnesota.¹ This article seeks to fill this gap by investigating the distributions of job creation and destruction at the state level and across industries.

The analysis is based on statistics from the Minnesota Business Employment Dynamics (MBED). These statistics, produced each quarter with the cooperation of the U.S. Bureau of Labor Statistics, measure the number of jobs added at expanding and opening businesses and the number of jobs lost at contracting and closing businesses. The MBED statistics are constructed² from the Quarterly Census of Employment and Wages (QCEW) by linking employment data at the third month of each calendar quarter at each business or establishment. The QCEW compiles all businesses subject to Minnesota Unemployment Insurance (UI) and covers more than 97 percent of Minnesota employment. Comparing employment levels between a particular quarter, referred to as current quarter, and the quarter preceding it give rise to five types of businesses: expanding, opening, contracting, closing, and stable.

Definitions:

- An establishment is an economic unit that produces goods and services, generally a single physical location with a specific industry classification, such as a factory or store.
- Employment is the number of UI-covered workers who received wages during the period that includes the 12th of the third month of each quarter.
- An expanding establishment is an establishment that expands its quarterly employment from a positive level in the previous quarter to a higher level in the current quarter.
- An opening establishment is an establishment that expands its quarterly employment from zero in the previous quarter to a positive level in the current quarter.
- The sum of jobs added at expanding and opening establishments is defined as gross job gains, which capture job creation.
- A contracting establishment is an establishment that reduces its quarterly employment from a positive level in the previous quarter to a lower level in the current quarter.
- A closing establishment is an establishment that reduces its quarterly employment from a positive level in the previous quarter to zero in the current quarter.
- The sum of jobs lost at contracting and closing establishments is defined as gross job losses, which capture job destruction.
- A stable establishment is an establishment that holds its quarterly employment constant in the previous and current

quarters. Although these establishments don't contribute to gross job flows, counting them as well as their employment levels is important to determine the total number of establishments and total employment and consequently to express the MBED statistics in terms of rates.

Gross job gains and gross job losses at the state level

Table 1 presents the seasonally unadjusted gross job gains and losses for Minnesota in the third quarter of 2013, the most recent MBED statistics available. These MBED statistics reveal many salient characteristics of the Minnesota labor market and the distributions of job creation and destruction. First, the magnitudes of job creation and job destruction are significantly larger than the net employment change. Gross job gains were 128,055 jobs and gross job losses were 149,482 jobs, which together contributed to a negative net employment change of 21,427 jobs on a seasonally unadjusted basis. Viewed differently, the drop of 21,427 in employment levels between June and September 2013 is a net product of a job churn of 277,537 jobs that were either created or terminated.

We obtain the same conclusion when considering these measures expressed in relative terms. While the negative net employment change was barely 1 percent of total employment, gross job gains and gross job losses represented 4.7 percent and 5.5 percent of total employment, respectively. This means that 4.7 percent of jobs in September 2013 were not there in June 2013, and 5.5 percent of jobs that were there in June 2013 disappeared in September 2013. Adding these two rates together

¹For a discussion on Minnesota job creation and job destruction see research previously published by this author in DEED's Employment Review of May 2012.

²For a detailed discussion on how the MBED statistics are developed visit: www.bls.gov/bdm/

indicate that job reallocation accounted for 12.2 percent of total employment between June and September 2013. Ten of every 82 jobs were either created or terminated.

Second, expanding establishments dominate gross job gains or job creation. Out of the 128,055 gross job gains between June and September 2013, 111,151 jobs or 86.8 percent were added by expanding establishments while only 16,904 jobs or 13.2 percent were added by opening establishments. And in relative measures, gross job gains from expanding establishments amounted to 4.1 percent of total employment, while gross job gains from opening establishments were only 0.6 percent of total employment.

Third, contracting establishments dominate gross job losses or job destruction. During the third quarter of 2013, contracting establishments shed 132,515 jobs or 88.6 percent of gross job losses, and closing establishments eliminated 16,967 jobs or 11.4 percent of gross job losses. In relative terms, gross job losses at contracting establishments accounted for 4.9 percent of total employment compared to 0.6 percent of total employment at closing establishments.

Fourth, the net employment change in third quarter 2013 was driven mainly by the net change of employment between expanding and contracting establishments. Recall that net employment change is the difference between gross job gains and gross job losses from all establishments. We can redefine the overall net employment change by breaking it into two parts: (1) the difference of gross job gains at expanding establishments and gross job losses at contracting establishments and (2) the difference of gross job gains at opening establishments and gross job losses at closing establishments. Table 1 shows that gross job gains at opening establishments and gross job losses at closing establishments offset each other at roughly 17,000 jobs. Specifically, the net employment change resulting from job creation at opening establishments and job destruction at closing establishments was tiny, a loss of 63 jobs statewide. On the other hand, the difference of gross job gains at expanding establishments and gross job losses at contracting establishments was a loss of 21,364 jobs which is almost all of the overall net employment loss of 21,427 jobs.

Table 1

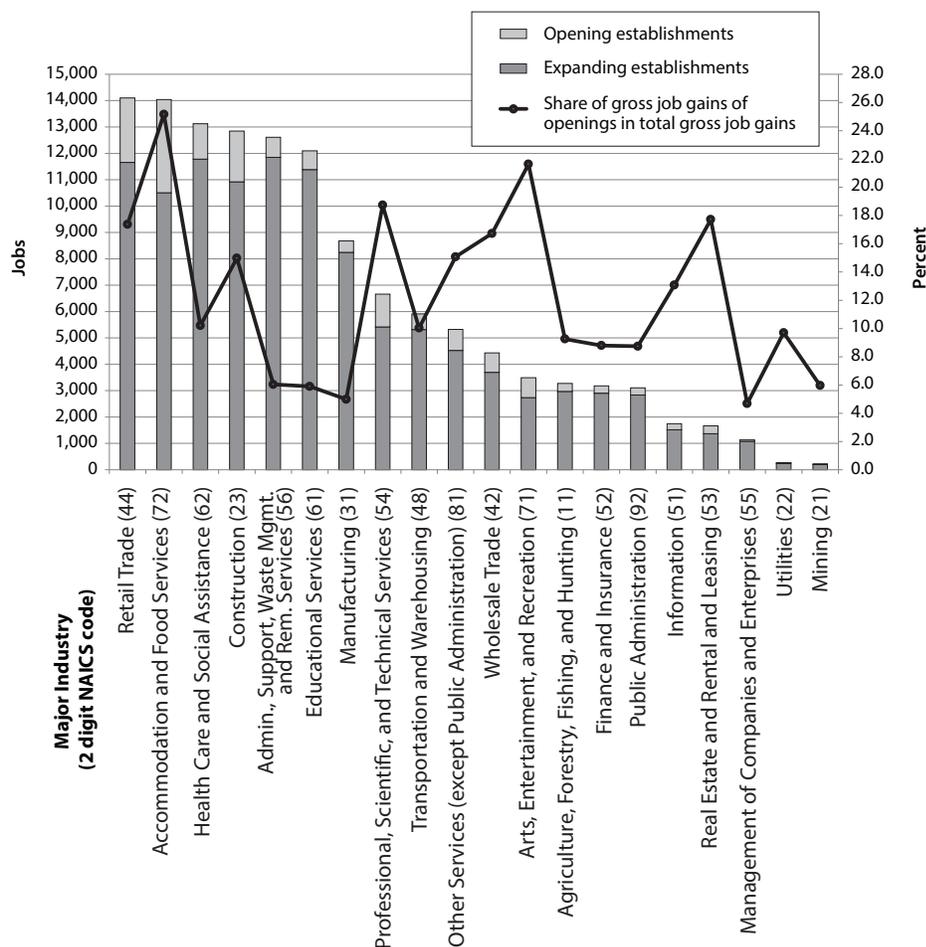
Gross Job Gains and Losses, Minnesota, All Employment, Quarter Ending September 2013

Business Employment Dynamics Statistics	Jobs	Rate (%)
Gross job gains	128,055	4.7
Expanding establishments	111,151	4.1
Opening establishments	16,904	0.6
Gross job losses	149,482	5.5
Contracting establishments	132,515	4.9
Closing establishments	16,967	0.6
Net change	-21,427	-0.8

Source: Minnesota Department of Employment and Economic Development, MBED Program

Chart 1

Gross Job Gains by Establishment Type and Major Industry, Minnesota, 2013 Q3



Moreover, inspecting these net employment changes expressed in percent of total employment reveals this result even more clearly. The overall net employment change was -0.8 percent between June and September 2013. This is exactly the value we obtain from the difference of gross job gains of expanding establishments (4.1 percent) and the gross job losses of contracting establishments (4.9 percent). This means that the net employment change resulting from opening establishments and closing establishments was basically zero percent of total employment. In fact, the rates of gross job gains from opening establishments and gross job losses from closing establishments were each 0.6 percent, therefore cancelling out each other.

Gross job gains by industry

The overall distributions of job creation and job destruction are certainly influenced by many factors such as establishments industry, geographic location, size, and age,

to mention a few. This article considers only industry. Chart 1 shows a significant amount of heterogeneity in gross job gains across industries for each establishment type: all establishments, expanding establishments, and opening establishments. Overall, gross job gains varied significantly across industries, from a high of 14,105 jobs in the Retail Trade industry to a low of only 218 jobs in the Mining industry. Likewise, the gross job gains of expanding establishments were widely spread across industries. Over three-fifths of gross job gains at expanding establishments were at six industries, each with more than 10,000 jobs created. These industries are: Administrative, Support, Waste Management and Remediation Services, Health Care and Social Assistance, Retail Trade, Educational Services, Construction, and Accommodation and Food Services. At the lower end, we find that expanding establishments at Utilities and Mining industries had gross job gains of only 242 and 205 jobs, respectively.

Like expanding establishments, the opening

establishments had gross job gains that were significantly different across industries. Opening establishments at Accommodation and Food Services, Retail Trade, and Construction industries contributed 47 percent, or 7,907 jobs, of all gross job gains at opening establishments. An additional 15 percent, or 2,588 jobs, were added by opening establishments in Health Care and Social Assistance industry and in the Professional, Scientific, and Technical Services industry. In each of the other 15 remaining industries, opening establishments had gross job gains smaller than 1,000 jobs, with the lowest levels generated at Management of Companies and Enterprises, Utilities, and Mining industries with gross job gains of 92 jobs between them.

Although industries differed in the magnitudes of gross job gains from expanding and opening establishments, we find that gross job gains from expanding establishments dominate gross job gains in all industries. Chart 1 gives the share of gross job gains of opening establishments in

Table 2

Percent Distribution of Gross Job Gains and Losses by Establishment Type and Major Industry, Minnesota, 2013 Q3

Industry (2-digit NAICS code)	Gross job gains			Gross job losses		
	Expansion	Openings	Total	Contracting	Closings	Total
Agriculture, Forestry, Fishing, and Hunting (11)	13.4	1.4	14.8	14.2	1.2	15.4
Mining (21)	3.2	0.2	3.4	4.0	0.0	4.0
Utilities (22)	1.7	0.2	1.9	1.4	0.2	1.6
Construction (23)	9.2	1.6	10.8	6.5	1.3	7.8
Manufacturing (31)	2.7	0.1	2.8	2.9	0.3	3.2
Wholesale Trade (42)	2.8	0.6	3.4	4.3	0.7	5.0
Retail Trade (44)	4.0	0.8	4.8	5.2	0.6	5.8
Transportation and Warehousing (48)	5.7	0.6	6.3	3.7	0.8	4.5
Information (51)	2.7	0.4	3.1	3.0	0.4	3.4
Finance and Insurance (52)	2.1	0.2	2.3	2.7	0.4	3.1
Real Estate and Rental and Leasing (53)	3.4	0.7	4.1	4.3	1.1	5.4
Professional, Scientific, and Technical Services (54)	4.0	0.9	4.9	4.1	1.3	5.4
Management of Companies and Enterprises (55)	1.4	0.1	1.5	2.5	0.1	2.6
Admin, Support, Waste Manag and Remed Services (56)	8.5	0.5	9.0	5.6	0.7	6.3
Educational Services (61)	5.2	0.3	5.5	8.9	0.6	9.5
Health Care and Social Assistance (62)	2.6	0.3	2.9	2.7	0.3	3.0
Arts, Entertainment, and Recreation (71)	5.1	1.4	6.5	11.1	0.9	12.0
Accommodation and Food Services (72)	4.7	1.6	6.3	6.7	1.1	7.8
Other Services (except Public Administration) (81)	5.4	1.0	6.4	6.4	1.3	7.7
Public Administration (92)	2.2	0.2	2.4	5.9	0.1	6.0

Source: Minnesota Department of Employment and Economic Development, MBED Program

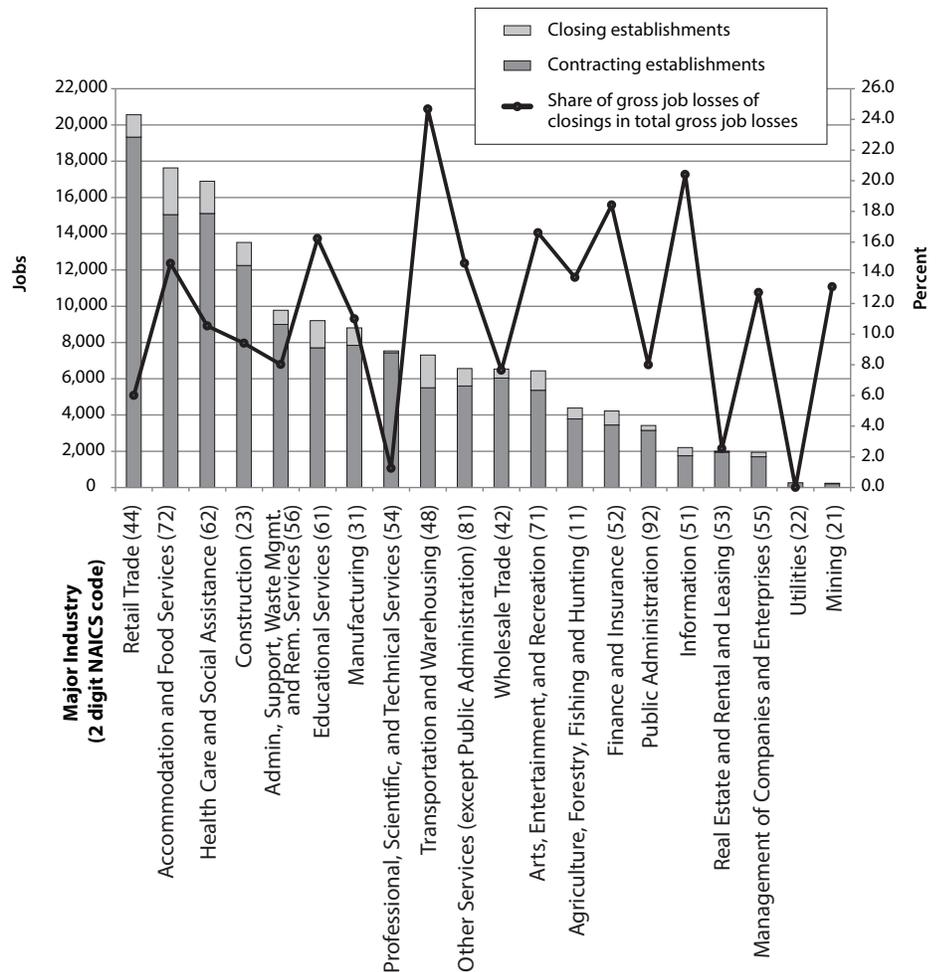
all gross job gains by industry.³ The highest level of this share was 25.2 percent in Accommodation and Food Services industry. This also means that in Accommodation and Food Services industry expanding establishments accounted for 74.8 percent of all gross job gains. The second highest share of gross job gains from opening establishments was 21.6 percent in Arts, Entertainment, and Recreation industry. Marching down the distribution, the smallest share of gross job gains from opening establishments was 4.7 percent in Management of Companies and Enterprises industry. In other words, almost all gross job gains in Management of Companies and Enterprises industry were from expanding establishments, 95.3 percent. In fact, gross job gains from expanding establishments in this industry were 1,078 jobs compared to 53 jobs from opening establishments. Thus, expanding establishments seem to play a more significant role in job creation than opening establishments in all industries, generating at least three-fourths of jobs created in each industry.

Extending this analysis to the relative measures of gross job gains yields similar findings. First, as Table 2 shows, the rates of gross job gains in total employment for expanding and for opening establishments varied significantly across industries. Among expanding establishments, the rate of gross job gains was as high as 13.4 percent in Agriculture, Forestry, Fishing, and Hunting and as low as 1.4 percent in Management of Companies and Enterprises. Looking at opening establishments, their rate of gross job gains varied as well across industries, but the range of variation was much narrower than that of expanding establishments. The highest rate of gross job gains at opening establishments was 1.6 percent in both Construction and Accommodation and Food Services and the lowest rate was 0.1 percent in Manufacturing and in Management of Companies and Enterprises.

Second, Table 2 also shows that the rate of job gains from expanding establishments is much greater than the rate of job gains from opening establishments in all industries. For example, in Manufacturing the rate of gross job gains for expanding establishments was 2.7 percent of total employment while for opening establishments it was 0.1 percent of total employment. In all industries, expanding establishments were the major drivers of gross job gains between June and September 2013.

Chart 2

Gross Job Losses by Establishment Type and Major Industry, Minnesota, 2013 Q3



Gross job losses by industry

Gross job gains captures one part of the job dynamics; the other part is gross job losses. Chart 2 displays gross job losses from contracting establishments and closing establishments across industries. It is evident from looking at of Chart 2 that the distributions of gross job losses show features that are similar to those of the distributions of gross job gains. First of all, gross job losses have a large degree of heterogeneity across industries. The highest level of gross job losses was the 20,567 jobs lost in Educational Services, while the lowest level was only 237 jobs in Utilities. Peeking into gross job losses by source, the heterogeneity is also apparent. Contracting establishments generate the widest variation in gross job losses as they varied from a high of 19,333 jobs in Educational Services to a low of 206 in Utilities. The gross job losses

at closing establishments were also variable across industries, varying from 2,575 jobs in Accommodation and Food Services to no jobs lost in mining.

This variation among industries has a natural consequence; gross job losses tend to be concentrated in a handful of industries. About 47 percent of gross job losses at contracting establishments were in four industries: Educational Services, Accommodation and Food Services, Retail Trade, and Health Care and Social Assistance. Contracting establishments in these industries contributed 61,751 jobs to gross job losses, of which 19,333 jobs were in Educational Services alone. The significant amount of gross job losses in education between June and September 2013 seems to be the result of reducing employment in elementary and secondary schools as they moved into summer months.

³The share of gross job gains from expanding establishments expressed in percent can easily be obtained by subtracting from 100 percent the gross job gains from opening establishments in each industry.

In fact, the gross job losses of contracting establishments in these schools were 15,352 jobs, or 79 percent of gross job losses at contracting establishments in Educational Services.

By analogy to contracting establishments, gross job losses from closing establishments were also concentrated in few industries. Of the 16,697 gross job losses from all closing establishments 7,652 or 45 percent were in Accommodation and Food Services, Professional, Scientific, and Technical Services, Retail Trade, and Construction. Two other industries contributed an additional 2,505 jobs, or 15 percent, to gross job losses from closing establishments. Thus, three-fifths of gross job losses from closing establishments were in these six industries.

Chart 2 reveals that the distributions of gross job losses bear another common feature with those of gross job gains. By analogy with gross job gains from expanding establishments dominating gross job gains in all industries, gross job losses from contracting establishments dominate gross job losses in all industries. Chart 2 gives the share of gross job losses from closing establishments in total gross job losses by industry.⁴ The largest share of closing establishments in gross job losses was a modest 24.7 percent in Professional, Scientific, and Technical Services. In other words the share of contracting establishments was 75.3 percent, and that is the lowest of all industries. Only one other industry, Real Estate and Rental and Leasing, had a share of closing establishments in gross job losses barely above 20 percent. The lowest shares of closing establishments in gross job losses were in Management of Companies

and Enterprises (2.5 percent), Public Administration (1.2 percent), and Mining (0 percent). In these three industries almost all of gross job losses occurred at contracting establishments.

The discussion so far emphasized absolute measures of gross job losses. One direction of generality is to consider relative measures of gross job losses. Table 2 gives the percent distributions of gross job losses in total employment for contracting and closing establishments. As obtained with absolute measures above, the ratios of gross job losses to employment for both contracting and closing establishments exhibit significant heterogeneity across industries. The ratio of gross job losses to employment for contracting establishments was highest at 14.2 percent in Agriculture, Forestry, Fishing, and Hunting and lowest at 1.4 percent in Utilities. Contracting establishments in Educational Services which have the largest number of gross job losses is now the third largest with a ratio of gross job losses to employment of 8.9 percent.

Similarly, the ratio of gross job losses to employment for closing establishments varied across industries, albeit over a smaller range compared to that seen with contracting establishments. The highest rate of gross job losses to employment for closing establishments was 1.3 percent in Professional, Scientific, and Technical Service, Other Services, and Construction. And as expected, the lowest rate of gross job losses to employment for closing establishments was zero percent in Mining.

Finally, Table 2 indicates that contracting establishments play a more important

role in generating gross job losses than closing establishments in all industries. In Manufacturing the rate of gross job losses for contracting establishments was 2.9 percent of total employment, while for closing establishments it was only 0.3 percent of total employment. This means that between June and September 2013 more than 90 percent of gross job losses in Manufacturing came from contracting establishments.

Summary:

Gross job gains or job creation and gross job losses or job destruction are significant and occur simultaneously in the Minnesota labor market. Between them, they reached close to 278,000 jobs between June and September 2013. Most of the job creation in the state and by industry was generated by expanding establishments, and likewise most of the job destruction was generated by contracting establishments. Moreover, heterogeneity across industries characterized all distributions of gross job gains and gross job losses by type of establishment. It is likely that the extent and magnitude of these heterogeneities across industries is time-dependent. The results of this analysis are pertinent to the third quarter time period. Job dynamics from other quarters of the year might yield different results. Extending this analysis to each of the other quarters will improve our understanding of how job creation and destruction evolve over a calendar year.

⁴The share of gross job losses from contracting establishments expressed in percent can easily be obtained by subtracting from 100 percent the gross job losses from closing establishments in each industry.

