



Seasonal Variation in Northeast Minnesota's Economy

Minnesotans don't need a calendar to announce the changing of the seasons. The formation of ice on lakes and its disappearance, the budding of leaves and their brilliant transformation before their fall, and even the incremental changes of daylight hours indicate the yearly cycle that distinguishes Minnesota. The turning of the season alters nature all around, and it also creates changes to the labor market and the local economy. This article focuses on the

magnitude and relationship of these changes for Northeast Minnesota.

In order to examine the effects that seasons have on the regional economy, the months of January, February, and March were used to represent the winter season and the months of July, August, and September to make up the summer season. To get a seasonal estimate the average of the three months to the corresponding season were used. By comparing

employment information from winter to summer, seasonal change can be measured and analyzed for trends over time.

The unemployment rate is one indicator of economic activity, and Figure 1 shows the changes that occur from the first quarter to the third quarter for the six planning regions of Minnesota, according to data from DEED's Local Area Unemployment Statistics (LAUS). Since 2004 Northeast Minnesota's unemployment rate has dropped an average of

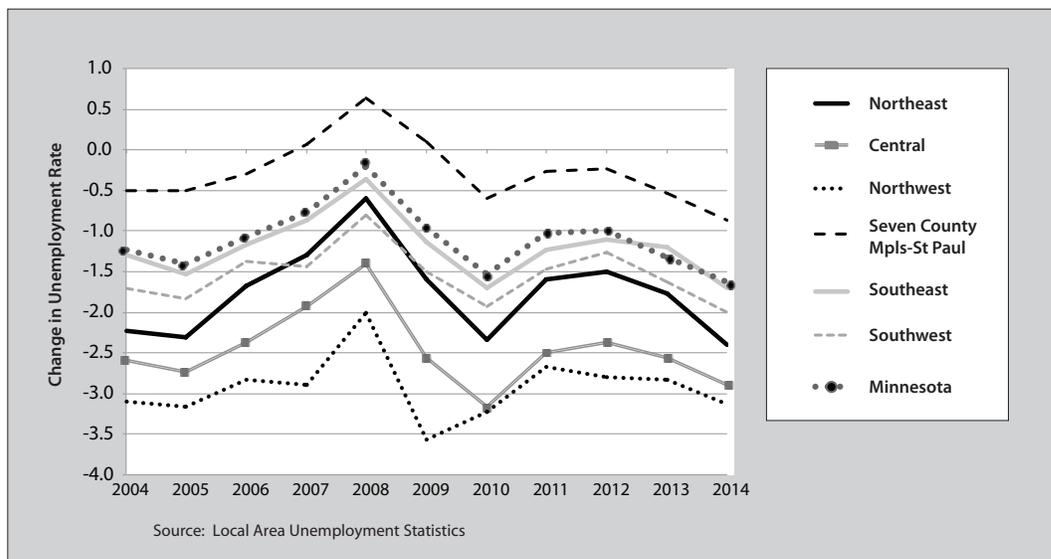
Feature:

Follow the Yellow Brick Roads

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Figure 1: Unemployment Rate Change between First Quarter and Third Quarter (Winter and Summer)



1.75 percent between the two seasons, a much greater change than that for the State of Minnesota, but less than the drop in unemployment for Northwest Minnesota.

The winters of Northern Minnesota may be viewed as harsh by the uninitiated, but by summer time the cabins are filled and the lakes are populated throughout the region, causing service industries to increase hiring to meet the demands of these seasonal residents and tourists. This feature, shared by Northeast and Northwest Minnesota, helps to explain the considerable drop in the unemployment rate from winter to summer (see Figure 1).

Much as we would include a measure of the wind to determine how cold it feels during a Minnesota winter day, so it's important we measure the changes in the overall labor force to determine the seasonal effect on the local economy. Since 2004 the average size of the labor force in Northeast Minnesota expanded 1.7 percent between the two seasons, as the average estimate for the winter labor force was 166,783 available workers compared to 169,569 workers during the summer.

Figure 2: Percent Change in the Size of the Labor Force between First Quarter and Third Quarter (Winter and Summer)

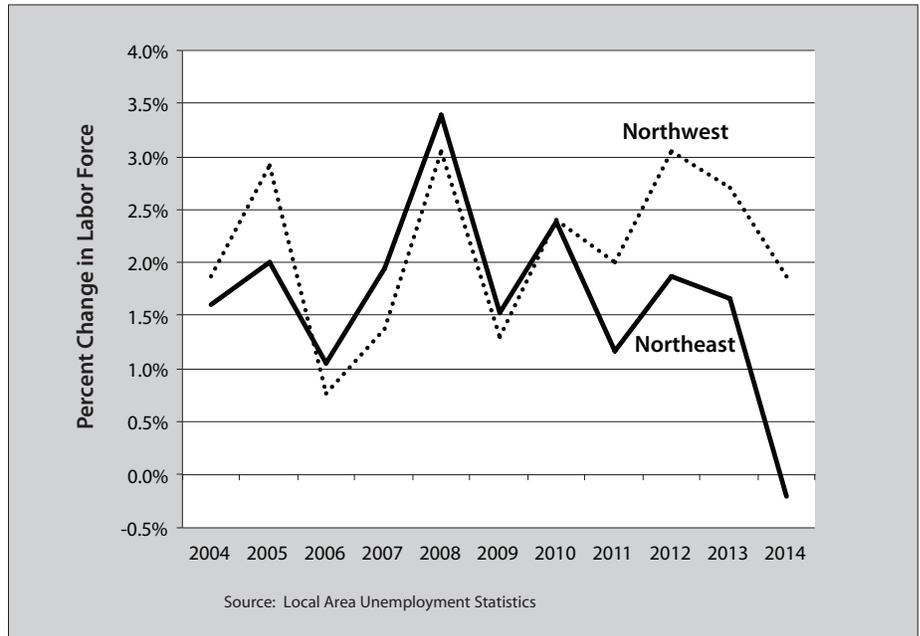


Table 1: Northeast Minnesota Change in Available Labor Force from Winter to Summer

Year	Labor Force Estimates			Labor Force Change			
	Season	Labor Force Estimate	Unemployed Estimate	Change from Q1 to Q3	Labor Force	Unemployed Workers	Unemployment Rate
2008	Winter	164,758	11,486	Absolute Change	+5,596	-720	-0.6%
	Summer	170,354	10,766	Percent Change	+3.4%	-6.3%	
2010	Winter	169,626	16,910	Absolute Change	+4,036	-3,572	-2.3%
	Summer	173,662	13,338	Percent Change	+2.4%	-21.1%	
2012	Winter	167,108	13,162	Absolute Change	+3,140	-2,327	-1.5%
	Summer	170,248	10,836	Percent Change	+1.9%	-17.7%	
2014	Winter	168,545	12,379	Absolute Change	-345	-4,058	-2.4%
	Summer	168,201	8,321	Percent Change	-0.2%	-32.8%	

Source: DEED Local Area Unemployment Statistics (LAUS)

As Figure 2 shows, the pattern of seasonal fluctuations to the labor force for Northeast Minnesota is also shared with Northwest Minnesota, highlighting the seasonal variation for regions that are known as summer vacation destinations. Typically, the change from winter to summer causes Northeast Minnesota's unemployment rate to drop along with a corresponding increase to the labor force, but there are exceptions to this pattern.

In 2008, in the midst of the recession, Northeast Minnesota's labor force actually increased by 5,596 people, the greatest gain measured since 2004. At the same time, the number of unemployed fell from 11,486 in the winter to 10,766 in the summer, constituting the smallest drop since 2004. The large increase to the labor force and the small decrease in the number of unemployed workers led to high unemployment rates and generated just a 0.6 percent decrease between the two seasons.

As the recovery gained momentum in 2014, the trend for 2008 was completely reversed. The region's labor force contracted by 345 people from the winter to the spring, while the number of unemployed fell by 4,058 people. The large decrease of unemployed workers who were finding jobs coupled with the decrease in size of the labor force led to a considerable drop of 2.4 percent in the unemployment rate. These two examples highlight the peculiarities of the seasonal effects on the labor force in Northeast Minnesota (see Figure 2 and Table 1).

Industries are also affected by the changing of the seasons and this effect can be varied depending on the nature of the industry's activity. One way to identify the industries that experience seasonal variation is to analyze hiring behavior because industries that have greater demand in the summer will need to hire new employees to keep up with the increased workload. DEED's Quarterly Workforce Indicators (QWI)



Photo: Judy Parker

program keeps track of hiring data by industry for Northeast Minnesota. Because the data is quarterly, it is consistent with the employment data used in this article to determine seasonal variation (see Table 2).

Table 2 lists the industries and the seasonal variation that occurs to the number of hires. It's not surprising that the Construction industry experiences considerable hiring activity during the summer, as it is nearly impossible to dig foundations in frozen ground or repairs roads which are snow covered and, while Retail Trade stores hire consistently year-round, the hiring activity climbs in the summer.

The industry that experiences the most hiring and the biggest seasonal shift in Northeast Minnesota is the Accommodation and Food Services industry, however, as it has averaged 2,663 hires during the winter and 4,916 in the summer. The region's hotels and restaurants nearly double their hiring in the summer compared to winter, a pattern that

Table 2: Industries with the Highest Amount of Seasonal Variation of All Hires for Northeast Minnesota, 2004-2013

	2004-2013 Average			
	Quarter 1 Estimate	Quarter 3 Estimate	Absolute Change	Percent Change
Total, All Industries	20,060	26,361	6,300	31.4%
Construction	1,443	2,539	1,097	81.0%
Retail Trade	2,148	3,375	1,227	62.2%
Arts, Entertainment, and Recreation	694	1,314	620	103.6%
Accommodation and Food Services	2,663	4,916	2,253	91.7%

Source: DEED, QWI Explorer Application



is also shared by the Arts, Entertainment, and Recreation industry. All of these industries respond to the influx of summer tourists and seasonal residents, who create more demand for eating, drinking, shopping, and other recreation activities.

Hiring activity is one indicator of the effects that seasons have on industries, but it doesn't differentiate whether all those hires generate actual growth of new jobs or might instead be indicative of high turnover within the industry. Using DEED's Quarterly Census of Employment and Wages

(QCEW) data, however, the industries that had considerable hiring activity can be analyzed to determine the extent of job growth between winter and summer.

For the Total of All Industries in Northeast Minnesota, the average net change in employment from the first quarter to the third quarter was an increase of 5,705 jobs or a 4.2 percent gain. Nearly half of all employment growth in the region that occurs from winter to summer can be attributed to the Accommodation and Food Services Industry where, on average, just over 2,800 jobs are gained through the changing of the seasons each year (see Table 3). Hiring activity and job growth for Northeast Minnesota is affected by the changing of the seasons and the Accommodation and Food Services Industry is a major reason why.

As winter recedes and summer approaches, the economic activity for Northeast Minnesota springs into action. The labor force expands as the construction season resumes, and the unemployment rate falls as shops, restaurants, and resorts look to hire in preparation for their recurring visitors. The changing of the seasons has a considerable impact on the regional economy and, much like the seasons themselves, is a uniquely defining characteristic of Northeast Minnesota.

Table 3: Seasonal Variation in Industry Employment for Northeast Minnesota, 2008-2013

	2008-2013 Average			
	Quarter 1 Estimate	Quarter 3 Estimate	Absolute Change	Percent Change
Total, All Industries	135,190	140,895	5,705	4.2%
Construction	4,821	6,806	1,985	41.2%
Retail Trade	16,955	17,770	815	4.8%
Arts, Entertainment, and Recreation	3,444	4,073	630	18.3%
Accommodation and Food Services	12,970	15,788	2,818	21.7%

Source: DEED Quarterly Census of Employment & Wages (QCEW)

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Featuring the Job Vacancy Survey



The Minnesota Job Vacancy Survey (JVS) is a semi-annual survey that is conducted by the Labor Market Information Office (LMI) of the Minnesota Department of Employment and Economic Development (DEED) in the spring and fall of each year. The JVS was launched for the first time in 2001 with the aim of providing a snapshot of timely and consistent information on labor demand. While we based our survey loosely on a federal program called Job Openings and Labor Turnover, the federal survey does not provide state level data. The JVS provides only Minnesota data since currently we are the only state with an economy-wide job vacancy survey.

Specifically the survey provides a snapshot of:

- The number and types of open positions in Minnesota
- The educational and training requirements for those positions
- The wages and benefits offered to applicants for the positions
- Hiring trends over the next six months

The population from which the survey sample is selected includes all employers in Minnesota who employ at least one employee. The survey is sent to private employers and agencies of the federal government, state government, and local government. The sample, about 10,000 units or firms, is randomly selected from Minnesota's Quarterly Census of Employment and Wages (QCEW) which is the universe of firms that are doing business in Minnesota. Firms are selected based on a sampling procedure that stratifies by Economic Development Region, four firm sizes (one to nine employees, 10 to 49 employees, 50 to 249 employees, and 250 employees or more), and by the 20 major industrial sectors. To estimate the number of job vacancies for the total population all responses to the survey are weighted and scaled to produce statistically valid results that represent the population of employers in Minnesota.

Firms participating in the survey are allowed to respond using several methods that include mail, fax, email, directing us to the firm's website, or telephone.

So that we may analyze turning points in the demand for workers across the state, the employers are asked if they intend to:

- Increase employment levels
- Decrease employment levels
- Maintain current employment levels over the next six months

Among the results produced from job vacancy survey are: job vacancy rate, which is the number of job openings per 100 jobs, and the unemployment to job vacancy ratio, which indicates the number of unemployed people per 100 jobs. The latest job vacancy survey results showed that Minnesota has the highest job vacancy rate, as well as the lowest unemployment to job vacancy ratio in 13 years.

Employers can use the data to evaluate if the job or jobs they have posted are offering competitive wages for their region and industry. Job seekers can check to see if jobs are available in their field, if they need to tweak their job search, or if they need to consider moving to a region of the state with more openings in their field.

Look over the web site and see what it has to offer:
mn.gov/deed/jvs



by Mohamed Mourssi Alfash

Labor Force Estimates

County/ Area

County/ Area	Labor Force			Employment			Unemployment			Rate of Unemployment		
	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013
United States ('000s)												
(Seasonally adjusted)	156,129	156,402	154,937	147,442	147,331	144,586	8,688	9,071	10,351	5.6%	5.8%	6.7%
(Unadjusted)	155,521	156,297	154,408	147,190	147,666	144,423	8,331	8,630	9,984	5.4	5.5	6.5
Minnesota												
(Seasonally adjusted)	2,995,353	2,990,383	2,971,572	2,886,343	2,879,503	2,834,248	109,010	110,880	137,324	3.6	3.7	4.6
(Unadjusted)	2,985,228	2,989,888	2,963,358	2,876,012	2,893,585	2,825,408	109,216	96,303	137,950	3.7	3.2	4.7
Metropolitan Statistical Areas (MSA)*												
Mpls.-St. Paul MSA	1,876,171	1,883,046	1,862,843	1,814,376	1,826,057	1,782,400	61,795	56,989	80,443	3.3	3.0	4.3
Duluth-Superior MSA	143,054	143,684	145,338	136,692	137,737	136,849	6,362	5,947	8,489	4.4	4.1	5.8
Rochester MSA	104,848	104,710	104,382	101,613	101,946	100,406	3,235	2,764	3,976	3.1	2.6	3.8
St. Cloud MSA	109,837	109,938	108,512	105,555	106,283	103,345	4,282	3,655	5,167	3.9	3.3	4.8
Mankato-N Mankato MSA	60,463	60,687	58,549	58,869	59,340	56,499	1,594	1,347	2,050	2.6	2.2	3.5
Fargo-Moorhead MSA	124,877	124,542	120,074	121,318	121,810	116,569	3,559	2,732	3,505	2.9	2.2	2.9
Grand Forks MSA	54,111	54,704	54,150	52,408	53,255	52,301	1,703	1,449	1,849	3.1	2.6	3.4
Region One	51,945	51,491	51,484	49,512	49,892	48,940	2,433	1,599	2,544	4.7	3.1	4.9
Kittson	2,735	2,661	2,665	2,620	2,584	2,549	115	77	116	4.2	2.9	4.4
Marshall	5,875	5,749	5,709	5,446	5,470	5,289	429	279	420	7.3	4.9	7.4
Norman	3,598	3,499	3,595	3,440	3,381	3,412	158	118	183	4.4	3.4	5.1
Pennington	10,004	9,805	9,674	9,437	9,544	9,170	567	261	504	5.7	2.7	5.2
Polk	18,079	18,317	18,355	17,374	17,741	17,494	705	576	861	3.9	3.1	4.7
Red Lake	2,350	2,340	2,290	2,226	2,260	2,171	124	80	119	5.3	3.4	5.2
Roseau	9,304	9,120	9,196	8,969	8,912	8,855	335	208	341	3.6	2.3	3.7
Region Two	40,486	40,411	40,249	37,962	38,279	37,327	2,524	2,132	2,922	6.2	5.3	7.3
Beltrami	22,215	22,390	22,138	21,037	21,376	20,707	1,178	1,014	1,431	5.3	4.5	6.5
Clearwater	4,383	4,342	4,334	3,915	3,958	3,832	468	384	502	10.7	8.8	11.6
Hubbard	9,009	9,022	8,978	8,366	8,493	8,259	643	529	719	7.1	5.9	8.0
Lake of the Woods	2,410	2,223	2,366	2,311	2,115	2,232	99	108	134	4.1	4.9	5.7
Mahnomen	2,469	2,434	2,433	2,333	2,337	2,297	136	97	136	5.5	4.0	5.6
Region Three	164,957	165,523	167,554	157,015	158,063	157,028	7,942	7,460	10,526	4.8	4.5	6.3
Aitkin	7,166	7,164	7,256	6,718	6,795	6,716	448	369	540	6.3	5.2	7.4
Carlton	17,606	17,628	17,829	16,730	16,852	16,749	876	776	1,080	5.0	4.4	6.1
Cook	3,075	3,046	3,064	2,907	2,902	2,872	168	144	192	5.5	4.7	6.3
Itasca	22,157	22,203	22,459	20,855	20,960	20,830	1,302	1,243	1,629	5.9	5.6	7.3
Koochiching	6,399	6,287	6,449	5,875	5,818	5,835	524	469	614	8.2	7.5	9.5
Lake	5,936	6,009	6,022	5,709	5,794	5,691	227	215	331	3.8	3.6	5.5
St. Louis	102,618	103,186	104,475	98,221	98,942	98,335	4,397	4,244	6,140	4.3	4.1	5.9
City of Duluth	44,979	45,249	45,658	43,356	43,675	43,407	1,623	1,574	2,251	3.6	3.5	4.9
Balance of St. Louis County	57,639	57,937	58,817	54,865	55,267	54,928	2,774	2,670	3,889	4.8	4.6	6.6
Region Four	128,377	128,090	126,260	123,341	124,329	120,547	5,036	3,761	5,713	3.9	2.9	4.5
Becker	18,000	17,974	17,732	17,118	17,302	16,715	882	672	1,017	4.9	3.7	5.7
Clay	35,843	35,845	34,992	34,730	35,053	33,690	1,113	792	1,302	3.1	2.2	3.7
Douglas	21,087	21,094	20,749	20,315	20,464	19,895	772	630	854	3.7	3.0	4.1
Grant	3,327	3,277	3,234	3,150	3,164	3,053	177	113	181	5.3	3.4	5.6
Otter Tail	31,196	30,989	30,849	29,723	29,905	29,189	1,473	1,084	1,660	4.7	3.5	5.4
Pope	6,716	6,714	6,547	6,483	6,529	6,266	233	185	281	3.5	2.8	4.3
Stevens	6,549	6,535	6,432	6,373	6,410	6,233	176	125	199	2.7	1.9	3.1
Traverse	1,802	1,761	1,762	1,717	1,697	1,688	85	64	74	4.7	3.6	4.2
Wilkin	3,857	3,901	3,963	3,732	3,805	3,818	125	96	145	3.2	2.5	3.7
Region Five	81,842	81,937	81,950	76,752	77,716	75,913	5,090	4,221	6,037	6.2	5.2	7.4
Cass	13,482	13,545	13,605	12,473	12,706	12,398	1,009	839	1,207	7.5	6.2	8.9
Crow Wing	31,946	32,280	32,254	30,059	30,623	29,880	1,887	1,657	2,374	5.9	5.1	7.4
Morrison	17,496	17,405	17,328	16,336	16,489	16,026	1,160	916	1,302	6.6	5.3	7.5
Todd	12,690	12,544	12,593	12,068	12,056	11,870	622	488	723	4.9	3.9	5.7
Wadena	6,228	6,163	6,170	5,816	5,842	5,739	412	321	431	6.6	5.2	7.0
Region Six East	66,624	66,394	66,217	63,864	64,205	62,888	2,760	2,189	3,329	4.1	3.3	5.0
Kandiyohi	24,876	24,859	24,749	23,922	24,104	23,610	954	755	1,139	3.8	3.0	4.6
McLeod	19,688	19,677	19,568	18,887	19,027	18,571	801	650	997	4.1	3.3	5.1
Meeker	12,744	12,676	12,626	12,138	12,204	11,929	606	472	697	4.8	3.7	5.5
Renville	9,316	9,182	9,274	8,917	8,870	8,778	399	312	496	4.3	3.4	5.3

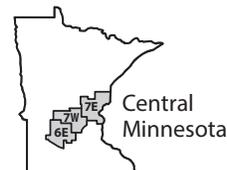
*Minneapolis-St. Paul Metropolitan Statistical Area (MSA) now includes Sherburne County in Minnesota and Pierce County in Wisconsin. St. Cloud MSA is now comprised of Benton and Stearns counties.

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		
	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013	Dec 2014	Nov 2014	Dec 2013
Region Six West	24,771	24,602	24,518	23,756	23,833	23,342	1,015	769	1,176	4.1%	3.1%	4.8%
Big Stone	2,636	2,639	2,626	2,506	2,554	2,494	130	85	132	4.9	3.2	5.0
Chippewa	7,249	7,211	7,193	6,970	6,994	6,867	279	217	326	3.8	3.0	4.5
Lac Qui Parle	4,049	4,056	4,015	3,896	3,929	3,819	153	127	196	3.8	3.1	4.9
Swift	5,170	5,122	5,109	4,934	4,951	4,844	236	171	265	4.6	3.3	5.2
Yellow Medicine	5,667	5,574	5,575	5,450	5,405	5,318	217	169	257	3.8	3.0	4.6
Region Seven East	84,211	84,008	83,931	79,312	80,017	78,056	4,899	3,991	5,875	5.8	4.8	7.0
Chisago	28,564	28,452	28,435	27,187	27,360	26,708	1,377	1,092	1,727	4.8	3.8	6.1
Isanti	20,891	20,828	20,697	19,842	19,968	19,492	1,049	860	1,205	5.0	4.1	5.8
Kanabec	8,078	8,099	8,037	7,372	7,521	7,249	706	578	788	8.7	7.1	9.8
Mille Lacs	12,281	12,246	12,315	11,411	11,533	11,244	870	713	1,071	7.1	5.8	8.7
Pine	14,397	14,383	14,447	13,500	13,635	13,363	897	748	1,084	6.2	5.2	7.5
Region Seven West	230,049	230,068	227,807	220,480	221,939	216,245	9,569	8,129	11,562	4.2	3.5	5.1
Benton	22,825	22,827	22,578	21,784	21,934	21,328	1,041	893	1,250	4.6	3.9	5.5
Sherburne	49,749	49,681	49,431	47,515	47,817	46,678	2,234	1,864	2,753	4.5	3.8	5.6
Stearns	87,012	87,111	85,934	83,771	84,349	82,017	3,241	2,762	3,917	3.7	3.2	4.6
Wright	70,463	70,449	69,864	67,410	67,839	66,222	3,053	2,610	3,642	4.3	3.7	5.2
Region Eight	70,173	69,378	69,213	67,831	67,614	66,574	2,342	1,764	2,639	3.3	2.5	3.8
Cottonwood	6,584	6,456	6,548	6,360	6,269	6,301	224	187	247	3.4	2.9	3.8
Jackson	7,717	7,647	7,455	7,466	7,458	7,229	251	189	226	3.3	2.5	3.0
Lincoln	3,575	3,471	3,463	3,425	3,376	3,327	150	95	136	4.2	2.7	3.9
Lyon	15,126	15,108	15,024	14,626	14,703	14,417	500	405	607	3.3	2.7	4.0
Murray	6,111	5,991	5,966	5,857	5,823	5,711	254	168	255	4.2	2.8	4.3
Nobles	11,467	11,390	11,402	11,141	11,129	11,004	326	261	398	2.8	2.3	3.5
Pipestone	5,677	5,675	5,629	5,500	5,559	5,417	177	116	212	3.1	2.0	3.8
Redwood	8,120	7,936	8,076	7,783	7,697	7,671	337	239	405	4.2	3.0	5.0
Rock	5,796	5,704	5,650	5,673	5,600	5,497	123	104	153	2.1	1.8	2.7
Region Nine	134,131	133,835	131,733	129,259	129,932	125,901	4,872	3,903	5,832	3.6	2.9	4.4
Blue Earth	40,169	40,348	38,900	39,084	39,397	37,511	1,085	951	1,389	2.7	2.4	3.6
Brown	15,555	15,464	15,489	14,962	15,027	14,808	593	437	681	3.8	2.8	4.4
Faribault	7,342	7,251	7,270	7,010	6,970	6,879	332	281	391	4.5	3.9	5.4
Le Sueur	15,321	15,288	14,912	14,459	14,659	13,893	862	629	1,019	5.6	4.1	6.8
Martin	10,631	10,482	10,647	10,201	10,123	10,177	430	359	470	4.0	3.4	4.4
Nicollet	20,294	20,339	19,649	19,785	19,943	18,988	509	396	661	2.5	1.9	3.4
Sibley	9,568	9,466	9,580	9,186	9,201	9,148	382	265	432	4.0	2.8	4.5
Waseca	9,570	9,596	9,661	9,158	9,236	9,159	412	360	502	4.3	3.8	5.2
Watonwan	5,681	5,601	5,625	5,414	5,376	5,338	267	225	287	4.7	4.0	5.1
Region Ten	273,720	273,020	272,188	264,414	265,184	260,626	9,306	7,836	11,562	3.4	2.9	4.2
Dodge	11,171	11,089	11,138	10,732	10,767	10,604	439	322	534	3.9	2.9	4.8
Fillmore	11,416	11,419	11,187	10,953	11,032	10,671	463	387	516	4.1	3.4	4.6
Freeborn	16,202	16,157	16,177	15,539	15,582	15,404	663	575	773	4.1	3.6	4.8
Goodhue	25,788	25,615	25,447	24,833	24,845	24,270	955	770	1,177	3.7	3.0	4.6
Houston	10,760	10,735	10,770	10,286	10,324	10,156	474	411	614	4.4	3.8	5.7
Mower	21,309	21,269	21,261	20,665	20,702	20,447	644	567	814	3.0	2.7	3.8
Olmsted	81,939	81,955	81,599	79,571	79,832	78,626	2,368	2,123	2,973	2.9	2.6	3.6
City of Rochester	59,790	59,882	59,616	58,083	58,274	57,394	1,707	1,608	2,222	2.9	2.7	3.7
Rice	32,436	32,357	32,346	31,163	31,325	30,730	1,273	1,032	1,616	3.9	3.2	5.0
Steele	21,881	21,739	21,613	21,181	21,160	20,741	700	579	872	3.2	2.7	4.0
Wabasha	11,739	11,666	11,645	11,310	11,347	11,176	429	319	469	3.7	2.7	4.0
Winona	29,079	29,019	29,005	28,181	28,268	27,801	898	751	1,204	3.1	2.6	4.2
Region Eleven	1,633,936	1,641,130	1,622,786	1,582,510	1,592,581	1,554,625	51,426	48,549	68,161	3.1	3.0	4.2
Anoka	191,629	192,095	190,163	184,749	185,924	181,493	6,880	6,171	8,670	3.6	3.2	4.6
Carver	51,767	51,846	51,402	50,021	50,339	49,139	1,746	1,507	2,263	3.4	2.9	4.4
Dakota	233,829	234,506	232,030	226,396	227,837	222,407	7,433	6,669	9,623	3.2	2.8	4.1
Hennepin	668,819	672,855	664,526	648,949	653,079	637,514	19,870	19,776	27,012	3.0	2.9	4.1
City of Bloomington	49,224	49,536	48,989	47,840	48,145	46,997	1,384	1,391	1,992	2.8	2.8	4.1
City of Minneapolis	218,220	219,587	216,977	211,416	212,761	207,691	6,804	6,826	9,286	3.1	3.1	4.3
Ramsey	276,208	277,485	274,546	267,350	269,051	262,639	8,858	8,434	11,907	3.2	3.0	4.3
City of St. Paul	147,284	147,957	146,446	142,250	143,155	139,744	5,034	4,802	6,702	3.4	3.2	4.6
Scott	76,618	76,693	76,021	74,102	74,574	72,797	2,516	2,119	3,224	3.3	2.8	4.2
Washington	135,066	135,650	134,098	130,943	131,777	128,636	4,123	3,873	5,462	3.1	2.9	4.1



Industrial Analysis

Overview

Seasonally adjusted employment levels in Minnesota dipped significantly in December as the state shed 5,200 jobs (0.2 percent). This reverses a recent trend of seasonally adjusted employment increases in the state. Employment losses were spread across the market as significant declines occurred in a number of supersectors including Manufacturing (down 1,400, 0.4 percent), Financial Activities (down 1,100, 0.6 percent), Educational and Health Services (down 1,500 or 0.3 percent), Government employment (down 4,200, 1.0 percent), and others. Industries to show employment gains included Trade, Transportation, and Utilities (up 4,100, 0.8 percent) and Other Services (up 400, 0.3 percent). For the year, state employment remained firmly in the black, up 33,400 jobs (1.2 percent) from December 2013. Large over-the-year increases came in Manufacturing (up 7,589, 2.4 percent), Professional and Business Services (up 11,995, 3.5 percent), and Educational and Health Services (up 8,910, 1.8 percent). The only supersectors to lose employment on the year were Financial Activities (down 2,503, 1.4 percent) and Information (down 206, or 0.4 percent) which just dipped into negative annual job growth this month. Other Services, meanwhile, returned to positive annual job growth this month (up 480, 0.4 percent) after being down in November.

Mining and Logging

Mining and Logging employment was static in December as the supersector held steady at 7,700 jobs. On an annual basis, Mining and Logging added 648 jobs (9.7 percent) since December of 2013.

Construction

Seasonally adjusted employment in the Construction supersector declined again in December, dipping by 300 (0.3 percent) over November estimates. Over the year,

Construction has been relatively flat, adding just 127 jobs (0.1 percent) over December of 2013. Annual growth in Specialty Trade Contractors (up 2,538, 4 percent) and Residential Building Construction (up 718, 6.7 percent) was largely offset by losses in the other component sectors. Heavy and Civil Engineering Construction lost 794 jobs (6.4 percent), Building Equipment Contractors lost 507 (1.8 percent), and Foundation, Structure, and Building Exterior Contractors lost 487 jobs (4.3 percent).

Manufacturing

Employment in the Manufacturing supersector declined in December, dropping 1,400 jobs (0.4 percent) on the month. This decline came entirely from the Durable Goods sector which gave back all of its gains from last month and then some, losing 1,700 jobs (0.8 percent) while Nondurable Goods Manufacturing added 300 jobs (0.3 percent). Annually, Manufacturing has added 7,589 jobs (2.4 percent) on the strength of a growing Durable Goods Manufacturing sector which is up 8,036 jobs (4.1 percent). The plurality of that increase came from Fabricated Metal Product Manufacturing which added 1,721 jobs (4.1 percent) on the year. The Non-Durable Goods sector lost 447 jobs (0.4 percent) over the year, with declines coming in both major component sectors (Food Manufacturing, down 283 or 0.6 percent, and Paper Manufacturing and Printing and Related Support Activities, down 832, 2.5 percent).

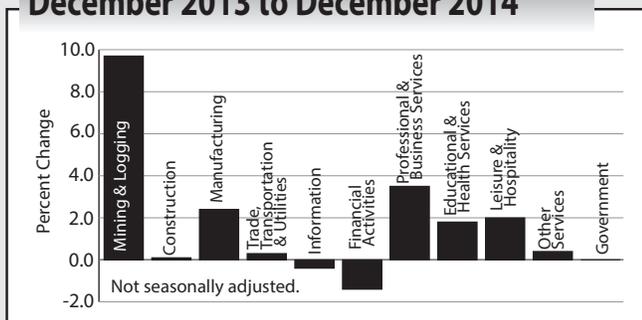
Trade, Transportation, and Utilities

Employment in Trade, Transportation, and Utilities bucked the monthly trend in December, adding 4,100 jobs (0.8 percent), with growth in the three major component industry groups. The most significant bit of growth came in Transportation, Warehousing, and Utilities which added 2,400 jobs (2.6 percent), by far the largest proportional increase in any published sector in the state this month. On an annual basis, the supersector has added 1,329 jobs (0.3 percent). Increases in Wholesale Trade (up 1,308 jobs, 1 percent) and Transportation, Warehousing, and Utilities (up 2,326, 2.4 percent) more than offset losses in Retail Trade (down 2,305, 0.8 percent).

Information

Information employment grew by 300 jobs (0.5 percent) in December on a seasonally adjusted basis. Annually, the Information supersector has lost 206 jobs (0.4 percent). Both published component industry groups had declines, with Publishing Industries (except Internet) losing 701 jobs (3.3 percent) and Telecommunications losing 324 jobs (2.4 percent).

MN Employment Growth December 2013 to December 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

Seasonally adjusted employment in Financial Activities declined sharply in December with the supersector shedding 1,100 jobs (0.6 percent). Growth of 100 (0.1 percent) in Finance and Insurance was not enough to overcome the drop of 1,200 (2.9 percent) in Real Estate and Rental and Leasing. For the year, the supersector is down 2,503 (1.4 percent) continuing its poor performance in Minnesota and running contrary to the supersector's performance nationwide which has been showing over-the-year job gains consistently since 2011.

Professional and Business Services

Professional and Business Services employment declined in December as the supersector lost 600 jobs (0.2 percent). Two of three published component sectors lost jobs, as Professional, Scientific, and Technical Services employment was down 400 (0.3 percent) and Management of Companies employment was down 500 (0.6 percent). On the year, the supersector remained solidly in positive employment growth, up 11,995 jobs (3.5 percent) over December of 2013. Employment in all major component sectors was either up or flat, with the only net job losses coming in Services to Buildings and Dwellings which was down just 24 or 0.1 percent.

Educational and Health Services

Educational and Health Services employment shrank on a seasonally adjusted basis in December as the supersector lost 1,500 jobs (0.3 percent) thanks to a loss of 1,600 (0.4 percent) in Health Care and Social Assistance. The other component industry group, Educational Services, added 100 jobs (0.1 percent). Annually, employment has increased by 8,910 (1.8 percent) with both major components showing significant job growth.

Leisure and Hospitality

Employment in Leisure and Hospitality dropped by 900 (0.3 percent) in December with all of that loss coming in Accommodation and Food Service, as Arts, Entertainment, and Recreation employment was flat. Over the year the supersector has added 4,891 jobs (2.0 percent). The only published component to lose jobs was Full-Service Restaurants which dropped by 3,740 (4.5 percent), although

that was made up for in other areas as the broader Food Services and Drinking Places industry group remained up, adding 4,375 jobs (2.4 percent) on the year. The Arts, Entertainment, and Recreation component added 395 jobs (1.1 percent).

Other Services

Employment in Other Services grew by 400 jobs (0.3 percent) in December. For the year, Other Services has added 480 jobs (0.4 percent) entirely in Religious, Grantmaking, Civic, Professional, and Similar Organizations.

Government

Government employment lost 4,200 jobs (1 percent) in December as Federal, State, and Local Government employers all showed a net loss. Local Government Employers had the largest numerical loss of any published supersector last month, losing 2,500 jobs (0.9 percent). Annually, employment has remained largely flat with Government employers adding 140 jobs (0.0 percent).

by Nick Dobbins

Seasonally Adjusted Nonfarm Employment

In 1,000's

Industry	Dec 2014	Nov 2014	Oct 2014
Total Nonagricultural	2,844.8	2,850.0	2,847.4
Goods-Producing	432.6	434.3	439.2
Mining and Logging	7.7	7.7	7.5
Construction	106.3	106.6	111.3
Manufacturing	318.6	320.0	320.4
Service-Providing	2,412.2	2,415.7	2,408.2
Trade, Transportation, and Utilities	519.5	515.4	519.8
Information	55.0	54.7	54.9
Financial Activities	179.2	180.3	177.6
Professional and Business Services	358.8	359.4	357.6
Educational and Health Services	506.7	508.2	506.9
Leisure and Hospitality	257.2	258.1	252.8
Other Services	119.3	118.9	119.9
Government	416.5	420.7	418.7

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

Regional Analysis

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

Employment dropped sharply in December as the metro lost 9,480 jobs (0.5 percent). Net job losses in December are common, although this year's decline was slightly larger than usual. Steepest declines came in Government, Educational and Health Services, and Mining, Logging, and Construction. Government employment was down 3,741 (1.5 percent), most of which came from Local Government excluding Educational Services (down 3,001, 1.9 percent). Educational and Health Services lost 2,909 jobs (0.9 percent). Mining, Logging, and Construction lost 4,412 jobs (6.7 percent). The supersector with the most positive employment growth was Trade, Transportation, and Utilities which added 3,055 jobs (0.9 percent) with growth of 1,320 (1.6 percent) in Wholesale Trade, 1,160 (0.6 percent) in Retail Trade, and 575 (0.9 percent) in Transportation, Warehousing, and Utilities.

Duluth-Superior MSA

Employment dipped by 742 jobs (0.6 percent) in December. The biggest decline came in Mining, Logging, and Construction which lost 478 jobs (5.5 percent), with significant drops also appearing in Leisure and Hospitality, Professional and Business Services, and Manufacturing. The largest monthly gain came in the Other Services supersector which added 178 jobs (2.6 percent) over November estimates. Over the year, employment in the Duluth metro has declined by 885 jobs (0.7 percent). As has been the case since October, the largest annual declines, by a significant margin, came in the Leisure and Hospitality

industry group (down 1,791, 13.1 percent). The largest employment increase came in Educational and Health Services which added 953 jobs (3 percent).

Rochester MSA

Employment waned slightly as the area lost 321 jobs (0.3 percent) from November estimates. Declines in Mining, Logging, and Construction (down 283, 8 percent), and Leisure and Hospitality (down 299, 3.2 percent) outweighed gains in Trade, Transportation, and Utilities (up 136, 0.8 percent) and Other Services (67, 1.8 percent) among other gains and losses in the metro. Annually, Rochester has added 709 jobs (0.7 percent). Most supersectors added employment on the year. Notable exceptions were Mining, Logging, and Construction (down 122, 3.6 percent), Financial Activities (down 38, 1.5 percent), Leisure and Hospitality (down 42, 0.5 percent), and Government (down 221, 2 percent).

St. Cloud MSA

The MSA lost 625 jobs (0.6 percent) in December. Most of the decline came in Mining, Logging, and Construction which dropped 445 jobs (7.5 percent). Other industry groups to contract included Manufacturing (down 216 or 1.4 percent), Educational and Health Services (down 137, 0.7 percent), Leisure and Hospitality (down 96, 1 percent), and Professional and Business Services (down 98, 1 percent). Employment remains up on an annual basis, with the metro supporting 1,836 (1.8 percent) more jobs than in December 2013. Mining, Logging, and Construction is responsible for a plurality of that increase,

as the supersector added 808 jobs (17.2 percent) over the year. Other supersectors with strong growth included Educational and Health Services (up 534, 2.7 percent), Leisure and Hospitality (up 373, 4.1 percent), and Professional and Business Services (up 297, 3.3 percent). Government employment remains significantly depressed on the year with 356 (2.2 percent) fewer jobs than the previous December.

Mankato-North Mankato MSA

Employment dipped by 462 (0.8 percent) in December, the area's first such decline since July. The losses were spread throughout published industry groups, as Goods Producers and Service Providers, as well as Private and Government employers, shared in the contraction. Employment remains up on an annual basis, however, with the MSA holding 2,082 (3.7 percent) more jobs than in December 2013.

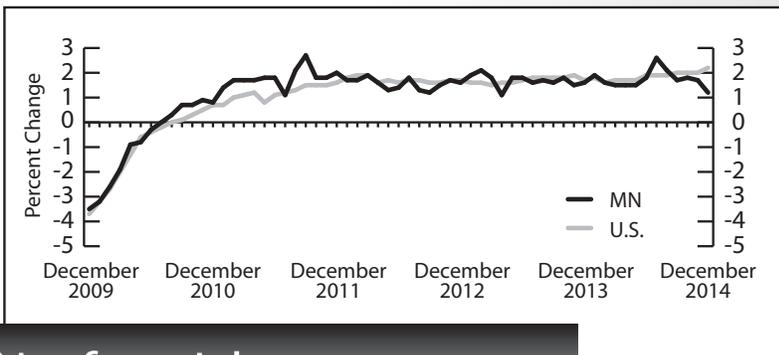
Fargo-Moorhead MSA

The MSA lost 748 jobs (0.5 percent) in December, largely driven by a sharp decline in Mining, Logging, and Construction which lost 1,109 jobs (10.9 percent) over the month. The largest monthly increase came in Leisure and Hospitality which added 399 jobs (2.8 percent). Annually, Fargo-Moorhead added 5,126 jobs (3.8 percent). Every supersector added jobs for the year, with the largest gain coming in Leisure and Hospitality (up 1,516, 11.6 percent).

Grand Forks-East Grand Forks MSA

As was the norm in December, the MSA saw significant employment declines for the month, losing 775 jobs (1.3 percent). Most supersectors lost jobs, with notable exceptions being Financial Activities (up 25, 1.5 percent), Leisure and Hospitality (63, 1 percent), and Other Services (15, 0.7 percent). Annually, the MSA added 470 jobs (0.8 percent), with increases in Trade, Transportation, and Utilities (up 106, 0.8 percent), Educational and Health Services (137, 1.4 percent), and Other Services (129, 6.3 percent) overcoming losses in Leisure and Hospitality (down 143, 2.3 percent) and Government (down 118 or 0.8 percent).

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

by Nick Dobbins

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					
	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013	Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
						Dec 2014	Dec 2013	Dec 2014	Dec 2013	Dec 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	2,842.6	2,865.5	2,809.2	-0.8%	1.2%	—	—	—	—	—	—
GOODS-PRODUCING	423.9	438.8	415.6	-3.4	2.0	—	—	—	—	—	—
Mining and Logging	7.4	7.7	6.7	-4.2	9.7	—	—	—	—	—	—
Construction	99.2	111.2	99.0	-10.8	0.1	—	—	—	—	—	—
Specialty Trade Contractors	65.9	71.3	63.4	-7.6	4.0	\$1,071.36	\$1,162.05	37.2	38.1	\$28.80	\$30.50
Manufacturing	317.4	320.0	309.8	-0.8	2.4	821.12	847.47	41.2	42.1	19.93	20.13
Durable Goods	204.7	206.5	196.7	-0.9	4.1	816.48	861.23	42.0	42.3	19.44	20.36
Wood Product Manufacturing	10.3	10.6	10.6	-2.6	-2.8	—	—	—	—	—	—
Fabricated Metal Production	44.1	43.9	42.4	0.4	4.1	—	—	—	—	—	—
Machinery Manufacturing	31.7	31.7	32.1	-0.2	-1.4	—	—	—	—	—	—
Computer and Electronic Product	45.1	44.9	44.8	0.3	0.5	—	—	—	—	—	—
Navigational, Measuring, Electromedical and Control	24.9	24.9	24.6	-0.1	1.1	—	—	—	—	—	—
Transportation Equipment	12.1	12.1	11.3	-0.3	6.5	—	—	—	—	—	—
Medical Equipment and Supplies Manufacturing	15.4	15.3	15.3	0.2	0.6	—	—	—	—	—	—
Nondurable Goods	112.7	113.5	113.1	-0.7	-0.4	831.20	824.83	40.0	41.7	20.78	19.78
Food Manufacturing	46.0	46.1	46.3	-0.2	-0.6	—	—	—	—	—	—
Paper Manufacturing	32.1	32.2	32.9	-0.3	-2.5	—	—	—	—	—	—
Printing and Related	23.3	23.4	23.6	-0.1	-1.3	—	—	—	—	—	—
SERVICE-PROVIDING	2,418.7	2,426.7	2,393.6	-0.3	1.0	—	—	—	—	—	—
Trade, Transportation, and Utilities	529.2	524.6	527.8	0.9	0.3	—	—	—	—	—	—
Wholesale Trade	132.9	132.0	131.6	0.7	1.0	975.22	1,004.55	38.9	39.8	25.07	25.24
Retail Trade	298.3	296.3	300.6	0.7	-0.8	409.54	391.79	29.4	29.0	13.93	13.51
Motor Vehicle and Parts	34.1	34.0	32.2	0.2	5.6	—	—	—	—	—	—
Building Material and Garden Equipment	24.2	24.6	24.9	-1.5	-2.8	—	—	—	—	—	—
Food and Beverage Stores	52.1	51.6	52.4	1.1	-0.5	—	—	—	—	—	—
Gasoline Stations	23.7	23.8	23.6	-0.1	0.7	—	—	—	—	—	—
General Merchandise Stores	65.8	64.4	66.9	2.3	-1.7	311.47	317.32	30.9	30.6	10.08	10.37
Transportation, Warehouse, Utilities	98.0	96.3	95.6	1.8	2.4	—	—	—	—	—	—
Transportation and Warehousing	84.6	82.9	82.6	2.1	2.4	649.06	646.50	34.0	38.3	19.09	16.88
Information	55.4	54.6	55.6	1.4	-0.4	816.89	836.85	33.7	35.0	24.24	23.91
Publishing Industries	20.5	20.5	21.2	0.1	-3.3	—	—	—	—	—	—
Telecommunications	13.1	13.1	13.4	-0.3	-2.4	—	—	—	—	—	—
Financial Activities	178.5	179.4	181.0	-0.5	-1.4	—	—	—	—	—	—
Finance and Insurance	138.5	138.2	141.2	0.2	-1.9	845.91	986.00	35.1	36.6	24.10	26.94
Credit Intermediation	53.5	53.2	55.3	0.5	-3.3	690.35	771.85	34.5	35.9	20.01	21.50
Securities, Commodity Contracts, and Other	18.2	18.3	18.5	-0.2	-1.3	—	—	—	—	—	—
Insurance Carriers and Related	66.7	66.7	67.2	0.0	-0.8	—	—	—	—	—	—
Real Estate and Rental and Leasing	40.0	41.1	39.8	-2.8	0.4	—	—	—	—	—	—
Professional and Business Services	359.6	361.4	347.6	-0.5	3.5	—	—	—	—	—	—
Professional, Scientific, and Technical Services	141.9	141.5	135.4	0.3	4.8	—	—	—	—	—	—
Legal Services	19.1	19.0	18.9	0.6	1.0	—	—	—	—	—	—
Accounting, Tax Preparation	16.1	15.7	14.7	2.5	9.6	—	—	—	—	—	—
Computer Systems Design	33.9	33.8	32.5	0.3	4.3	—	—	—	—	—	—
Management of Companies and Enterprises	79.5	79.5	77.8	0.1	2.2	—	—	—	—	—	—
Administrative and Support Services	138.1	140.5	134.4	-1.7	2.8	—	—	—	—	—	—
Educational and Health Services	508.7	511.8	499.8	-0.6	1.8	—	—	—	—	—	—
Educational Services	71.7	74.1	68.8	-3.2	4.3	—	—	—	—	—	—
Health Care and Social Assistance	437.0	437.7	431.0	-0.2	1.4	—	—	—	—	—	—
Ambulatory Health Care	143.6	143.2	139.6	0.3	2.8	1,233.38	1,214.52	35.3	34.8	34.94	34.90
Offices of Physicians	68.1	67.9	66.6	0.3	2.3	—	—	—	—	—	—
Hospitals	103.8	105.0	105.3	-1.1	-1.4	—	—	—	—	—	—
Nursing and Residential Care Facilities	106.4	106.6	106.3	-0.2	0.1	436.60	418.90	29.5	29.5	14.80	14.20
Social Assistance	83.2	82.9	79.8	0.4	4.2	—	—	—	—	—	—
Leisure and Hospitality	244.8	247.5	239.9	-1.1	2.0	—	—	—	—	—	—
Arts, Entertainment, and Recreation	35.4	35.3	35.0	0.3	1.1	—	—	—	—	—	—
Accommodation and Food Services	209.4	212.2	204.9	-1.3	2.2	—	—	—	—	—	—
Food Services and Drinking Places	185.6	187.3	181.2	-0.9	2.4	254.20	239.93	20.7	20.9	12.28	11.48
Other Services	119.8	118.7	119.4	1.0	0.4	—	—	—	—	—	—
Religious, Grantmaking, Civic, Professional Organizations	70.7	69.7	69.7	1.6	1.4	—	—	—	—	—	—
Government	422.7	428.8	422.6	-1.4	0.0	—	—	—	—	—	—
Federal Government	31.3	31.1	31.3	0.7	0.0	—	—	—	—	—	—
State Government	101.4	103.8	102.5	-2.4	-1.1	—	—	—	—	—	—
State Government Education	63.3	65.8	64.9	-3.7	-2.4	—	—	—	—	—	—
Local Government	290.1	293.9	288.8	-1.3	0.4	—	—	—	—	—	—
Local Government Education	145.3	145.7	143.9	-0.3	1.0	—	—	—	—	—	—

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* (Thousands)			Percent Change From**		Production Workers Hours and Earnings					
	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013	Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
						Dec 2014	Dec 2013	Dec 2014	Dec 2013	Dec 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	1,851.6	1,861.1	1,819.6	-0.5%	1.8%	—	—	—	—	—	—
GOODS-PRODUCING	254.1	258.6	244.8	-1.8	3.8	—	—	—	—	—	—
Mining, Logging, and Construction	61.4	65.9	59.9	-6.7	2.6	—	—	—	—	—	—
Construction of Buildings	15.9	15.9	14.6	-0.5	9.0	—	—	—	—	—	—
Specialty Trade Contractors	44.0	45.3	41.6	-2.8	5.9	\$1,224.31	\$1,262.01	38.2	38.7	\$32.05	\$32.61
Manufacturing	192.6	192.8	184.8	-0.1	4.2	868.61	847.04	41.7	40.9	20.83	20.71
Durable Goods	133.6	133.4	127.0	0.1	5.2	839.18	879.87	41.4	41.7	20.27	21.10
Fabricated Metal Production	29.2	29.0	28.2	0.9	3.7	—	—	—	—	—	—
Machinery Manufacturing	19.3	19.4	19.5	-0.9	-1.1	—	—	—	—	—	—
Computer and Electronic Product	35.9	35.7	35.5	0.4	1.1	—	—	—	—	—	—
Navigational, Measuring, Electromedical and Control	23.5	23.6	23.0	-0.2	2.0	—	—	—	—	—	—
Medical Equipment and Supplies Manufacturing	14.3	14.3	14.1	-0.1	0.8	—	—	—	—	—	—
Nondurable Goods	59.0	59.4	57.9	-0.6	2.0	931.02	788.42	42.3	39.5	22.01	19.96
Food Manufacturing	13.4	13.5	13.4	-0.2	0.5	—	—	—	—	—	—
Printing and Related	15.0	15.0	15.1	-0.3	-0.8	—	—	—	—	—	—
SERVICE-PROVIDING	1,597.6	1,602.5	1,574.9	-0.3	1.4	—	—	—	—	—	—
Trade, Transportation, and Utilities	329.6	326.6	330.5	0.9	-0.3	—	—	—	—	—	—
Wholesale Trade	81.6	80.3	82.2	1.6	-0.8	969.39	1,019.84	38.9	39.9	24.92	25.56
Merchant Wholesalers - Durable Goods	44.3	43.5	43.8	1.8	1.1	—	—	—	—	—	—
Merchant Wholesalers - Nondurable Goods	24.6	24.6	24.5	0.0	0.6	—	—	—	—	—	—
Retail Trade	181.7	180.6	184.6	0.6	-1.6	450.59	385.98	31.4	29.6	14.35	13.04
Food and Beverage Stores	30.0	29.6	30.1	1.2	-0.4	—	—	—	—	—	—
General Merchandise Stores	41.3	40.2	41.9	2.9	-1.2	322.19	333.26	31.9	31.8	10.10	10.48
Transportation, Warehouse, Utilities	66.3	65.7	63.7	0.9	4.1	—	—	—	—	—	—
Utilities	7.8	7.9	7.6	-0.6	2.4	—	—	—	—	—	—
Transportation and Warehousing	58.5	57.9	56.1	1.1	4.3	792.02	833.11	39.9	45.7	19.85	18.23
Information	38.7	38.5	38.9	0.5	-0.5	—	—	—	—	—	—
Publishing Industries	16.5	16.4	16.7	0.6	-1.6	—	—	—	—	—	—
Telecommunications	9.3	9.4	9.5	-0.3	-2.2	—	—	—	—	—	—
Financial Activities	141.8	142.2	141.7	-0.2	0.1	—	—	—	—	—	—
Finance and Insurance	108.9	108.7	109.3	0.2	-0.4	886.77	1,127.02	33.2	37.0	26.71	30.46
Credit Intermediation	37.6	37.4	38.1	0.3	-1.3	—	—	—	—	—	—
Securities, Commodity Contracts, and Other	16.5	16.5	16.4	0.0	0.3	—	—	—	—	—	—
Insurance Carriers and Related	53.5	53.6	53.5	-0.2	-0.1	—	—	—	—	—	—
Real Estate and Rental and Leasing	32.9	33.4	32.4	-1.5	1.5	—	—	—	—	—	—
Professional and Business Services	287.6	288.2	275.8	-0.2	4.3	—	—	—	—	—	—
Professional, Scientific, and Technical Services	113.1	112.1	107.6	0.9	5.1	—	—	—	—	—	—
Legal Services	16.0	15.9	15.8	0.6	0.8	—	—	—	—	—	—
Architectural, Engineering, and Related	16.1	16.1	15.6	0.4	3.4	—	—	—	—	—	—
Computer Systems Design	28.0	27.8	26.6	1.0	5.5	—	—	—	—	—	—
Management of Companies and Enterprises	71.5	71.4	69.5	0.1	2.8	—	—	—	—	—	—
Administrative and Support Services	103.0	104.7	98.7	-1.7	4.3	—	—	—	—	—	—
Employment Services	49.4	49.9	49.4	-1.1	-0.1	—	—	—	—	—	—
Educational and Health Services	310.0	312.9	304.5	-0.9	1.8	—	—	—	—	—	—
Educational Services	45.8	47.2	45.5	-3.1	0.7	—	—	—	—	—	—
Health Care and Social Assistance	264.2	265.7	259.0	-0.6	2.0	—	—	—	—	—	—
Ambulatory Health Care	85.8	85.7	85.2	0.2	0.7	—	—	—	—	—	—
Hospitals	60.8	61.9	61.3	-1.7	-0.8	—	—	—	—	—	—
Nursing and Residential Care Facilities	58.4	58.4	56.7	-0.1	3.0	—	—	—	—	—	—
Social Assistance	59.2	59.7	55.8	-0.8	6.0	—	—	—	—	—	—
Leisure and Hospitality	168.3	168.7	163.0	-0.2	3.2	—	—	—	—	—	—
Arts, Entertainment, and Recreation	26.8	27.0	26.9	-0.7	-0.5	—	—	—	—	—	—
Accommodation and Food Services	141.5	141.7	136.1	-0.2	4.0	272.41	274.74	21.5	22.8	12.67	12.05
Food Services and Drinking Places	128.9	129.2	123.0	-0.2	4.9	270.24	270.40	20.9	22.2	12.93	12.18
Other Services	76.9	77.0	78.1	0.0	-1.5	—	—	—	—	—	—
Repair and Maintenance	13.3	13.3	13.4	0.7	-0.7	—	—	—	—	—	—
Religious, Grantmaking, Civic, Professional Organizations	43.1	42.9	43.3	0.4	-0.4	—	—	—	—	—	—
Government	244.7	248.5	242.3	-1.5	1.0	—	—	—	—	—	—
Federal Government	20.0	19.8	20.2	0.7	-1.1	—	—	—	—	—	—
State Government	69.7	70.6	68.8	-1.2	1.3	—	—	—	—	—	—
State Government Education	44.0	44.9	43.5	-1.9	1.2	—	—	—	—	—	—
Local Government	155.0	158.0	153.3	-1.9	1.1	—	—	—	—	—	—
Local Government Education	89.1	89.1	88.2	0.0	0.9	—	—	—	—	—	—

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

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	133,364	134,106	134,249	-0.6%	-0.7%
GOODS-PRODUCING	15,462	16,069	15,642	-3.8	-1.2
Mining, Logging, and Construction	8,205	8,683	8,366	-5.5	-1.9
Manufacturing	7,257	7,386	7,276	-1.7	-0.3
SERVICE-PROVIDING	117,902	118,037	118,607	-0.1	-0.6
Trade, Transportation, and Utilities	25,330	25,288	25,302	0.2	0.1
Wholesale Trade	3,131	3,150	3,071	-0.6	2.0
Retail Trade	16,215	16,160	16,140	0.3	0.5
Transportation, Warehouse, Utilities	5,984	5,978	6,091	0.1	-1.8
Information	1,439	1,447	1,462	-0.6	-1.6
Financial Activities	5,465	5,405	5,533	1.1	-1.2
Professional and Business Services	7,640	7,816	7,597	-2.3	0.6
Educational and Health Services	32,323	32,309	31,370	0.0	3.0
Leisure and Hospitality	11,846	12,047	13,637	-1.7	-13.1
Other Services	7,034	6,856	6,413	2.6	9.7
Government	26,825	26,869	27,293	-0.2	-1.7

Rochester MSA

Jobs % Chg. From

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	108,684	109,005	107,975	-0.3%	0.7%
GOODS-PRODUCING	13,266	13,636	13,072	-2.7	1.5
Mining, Logging, and Construction	3,236	3,519	3,358	-8.0	-3.6
Manufacturing	10,030	10,117	9,714	-0.9	3.3
SERVICE-PROVIDING	95,418	95,369	94,903	0.1	0.5
Trade, Transportation, and Utilities	17,463	17,327	17,228	0.8	1.4
Wholesale Trade	2,311	2,331	2,278	-0.9	1.4
Retail Trade	12,583	12,424	12,422	1.3	1.3
Transportation, Warehouse, Utilities	2,569	2,572	2,528	-0.1	1.6
Information	1,801	1,790	1,737	0.6	3.7
Financial Activities	2,578	2,580	2,616	-0.1	-1.5
Professional and Business Services	5,571	5,553	5,545	0.3	0.5
Educational and Health Services	44,208	44,163	43,768	0.1	1.0
Leisure and Hospitality	9,149	9,448	9,191	-3.2	-0.5
Other Services	3,849	3,782	3,798	1.8	1.3
Government	10,799	10,726	11,020	0.7	-2.0

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

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	106,655	107,280	104,819	-0.6%	1.8%
GOODS-PRODUCING	20,378	21,039	19,447	-3.1	4.8
Mining, Logging, and Construction	5,513	5,958	4,705	-7.5	17.2
Manufacturing	14,865	15,081	14,742	-1.4	0.8
SERVICE-PROVIDING	86,277	86,241	85,372	0.0	1.1
Trade, Transportation, and Utilities	21,789	21,644	21,658	0.7	0.6
Wholesale Trade	4,320	4,295	4,262	0.6	1.4
Retail Trade	14,012	13,825	13,851	1.4	1.2
Transportation, Warehouse, Utilities	3,457	3,524	3,545	-1.9	-2.5
Information	1,622	1,619	1,701	0.2	-4.6
Financial Activities	4,521	4,533	4,509	-0.3	0.3
Professional and Business Services	9,236	9,334	8,939	-1.0	3.3
Educational and Health Services	20,362	20,499	19,828	-0.7	2.7
Leisure and Hospitality	9,447	9,543	9,074	-1.0	4.1
Other Services	3,492	3,489	3,499	0.1	-0.2
Government	15,808	15,580	16,164	1.5	-2.2

Mankato MSA

Jobs % Chg. From

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	57,663	58,125	55,581	-0.8	3.7%
GOODS-PRODUCING	10,221	10,437	9,858	-2.1	3.7
Mining, Logging, and Construction	--	--	--	--	--
Manufacturing	--	--	--	--	--
SERVICE-PROVIDING	47,442	47,688	45,723	-0.5	3.8
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	9,290	9,427	8,798	-1.5	5.6

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

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	140,012	140,760	134,886	-0.5%	3.8%
GOODS-PRODUCING	19,317	20,453	17,992	-5.6	7.4
Mining, Logging, and Construction	9,041	10,150	7,807	-10.9	15.8
Manufacturing	10,276	10,303	10,185	-0.3	0.9
SERVICE-PROVIDING	120,695	120,307	116,894	0.3	3.3
Trade, Transportation, and Utilities	30,952	30,825	30,058	0.4	3.0
Wholesale Trade	9,446	9,440	9,064	0.1	4.2
Retail Trade	16,464	16,288	16,074	1.1	2.4
Transportation, Warehouse, Utilities	5,042	5,097	4,920	-1.1	2.5
Information	3,304	3,308	3,263	-0.1	1.3
Financial Activities	10,084	10,014	9,875	0.	2.1
Professional and Business Services	15,816	15,983	15,345	-1.0	3.1
Educational and Health Services	22,290	22,442	21,780	-0.7	2.3
Leisure and Hospitality	14,561	14,162	13,045	2.8	11.6
Other Services	5,244	5,219	5,214	0.5	0.6
Government	18,444	18,354	18,314	0.5	0.7

Grand Forks-East Grand Forks MSA

Jobs % Chg. From

	Dec 2014	Nov 2014	Dec 2013	Nov 2014	Dec 2013
TOTAL NONFARM WAGE AND SALARY	57,919	58,694	57,449	-1.3%	0.8%
GOODS-PRODUCING	6,833	7,259	6,510	-5.9	5.0
Mining, Logging, and Construction	3,206	3,598	2,966	-10.9	8.1
Manufacturing	3,627	3,661	3,544	-0.9	2.3
SERVICE-PROVIDING	51,086	51,435	50,939	-0.7	0.3
Trade, Transportation, and Utilities	12,965	13,015	12,859	-0.4	0.8
Wholesale Trade	2,042	2,056	1,991	-0.7	2.6
Retail Trade	8,970	8,994	8,751	-0.3	2.5
Transportation, Warehouse, Utilities	1,953	1,965	2,117	-0.6	-7.8
Information	607	612	607	-0.8	0.0
Financial Activities	1,739	1,714	1,743	1.5	-0.2
Professional and Business Services	2,814	2,917	2,774	-3.5	1.4
Educational and Health Services	9,850	9,951	9,713	-1.0	1.4
Leisure and Hospitality	6,218	6,155	6,361	1.0	-2.3
Other Services	2,186	2,171	2,057	0.7	6.3
Government	14,707	14,900	14,825	-1.3	-0.8

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

Minnesota Economic Indicators

Highlights

The **Minnesota Index** ended the year on a sour note, remaining unchanged from November's reading. After racing along with 0.3 percent monthly increases from April to August, Minnesota's index lost momentum during the last four months of 2014. The flat reading in December implies that Minnesota's economy failed to expand for the first time since January 2010. Minnesota's unemployment rate continued to drop in December, but wage and salary employment declined, and waning average weekly manufacturing hours kept the index from advancing. The U.S. index continued to race ahead in December increasing 0.3 percent for the 11th straight month. Minnesota's economic growth as measured by the Minnesota index has trailed U.S. economic growth over the last four months.

Minnesota's index was up only 2.6 percent from a year ago which is the smallest over-the-year gain since December 2010. The U.S. index was up 3.5 percent from a year ago. Minnesota's over the year increase hasn't fallen this far below the U.S. increase since March 2007. Minnesota's economic recovery from the Great Recession was ahead of the nation's recovery until this month. As of December, Minnesota's economy is up 14.8 percent from September 2009, while the U.S. economy is 15.1 percent larger. Past slowdowns in Minnesota's index have been revised away as data are revised, so it is too soon to draw any firm conclusions about the strength

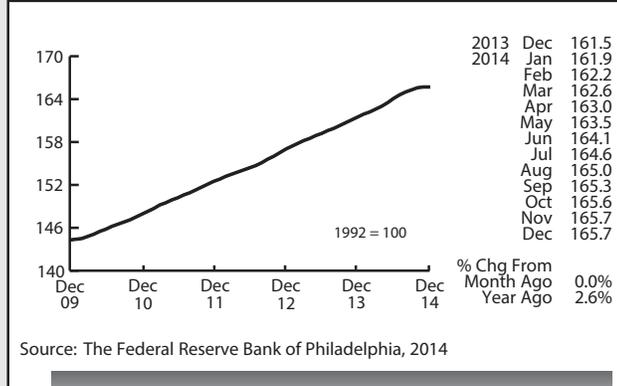
of Minnesota's economy especially since other indicators are giving more favorable signals about the state's economy.

Adjusted Wage and Salary Employment dropped sharply in December, declining by 5,200 jobs. It was the worst job report since April when 5,300 jobs were lost. The private sector cut 1,000 jobs while the public sector cut 4,200 jobs. State government payrolls were reduced by 1,600 while local government payrolls shrank by 2,500. Only three private super sectors added jobs with Trade, Transportation, and Utilities added the majority of positions. Job cuts in the private sector were highest in Educational and Health Services, Manufacturing, Financial Activities, and Leisure and Hospitality.

Minnesota's unadjusted job growth over the year plunged to 1.2 percent, the lowest since September 2012. The U.S. rate jumped to 2.2 percent which was the highest rate since September 2000. Minnesota's over-the-year job growth has slipped way behind the national level over the last four months.

The tail-off in Minnesota's job growth is surprising given climbing adjusted online **Help-Wanted Ads**. Help-wanted advertising, which many consider a proxy for labor demand, increased for the third month in a row, advancing to another record high of 129,600. December's level was 10.2 percent higher than a year ago compared to the 4.7 percent 12-month national increase.

Minnesota's **Purchasing Managers' Index (PMI)** rose for the first time in four months in December, recording the largest jump since February to 61.4. Minnesota's index topped both the U.S. index (55.1) and Mid-American Index (54.4) again in December. Minnesota's below U.S. job growth in December is inconsistent with the state's higher purchasing managers' index.



Source: The Federal Reserve Bank of Philadelphia, 2014

Minnesota Index

The plunge in adjusted **Manufacturing Hours** in December to 41.2 is, however, consistent with slowing job growth. Minnesota's factory workweek hasn't been this low since April 2013. The shrinking factory workweek pushed **Manufacturing Earnings** to their lowest level in two years. Seasonally unadjusted but inflation adjusted average weekly earnings were 4.2 percent below a year ago.

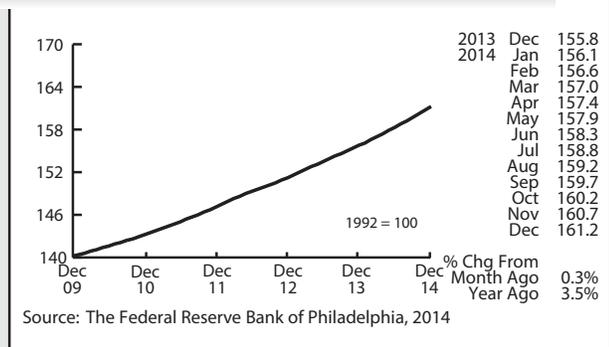
The **Minnesota Leading Index** plunged again in December, recording its seventh straight drop. The index fell to zero, the lowest level since July 2009. The zero reading implies that Minnesota's economy will experience no growth over the next six months. This is obviously a huge red flag that will hopefully prove false with data revisions.

Adjusted **Residential Building Permits** bounced back sharply in December, soaring 62.7 percent to 1,356. The pace of home building activity in Minnesota last year once again fell below expectations. Permit numbers increased 80 percent in 2012 after bottoming out in 2011 but the annual gain since then has been disappointing with an 8 percent increase in 2013 and only a 2.0 percent gain in 2014. Nationally residential building permits were up 4.8 percent in 2014.

Adjusted **Initial Claims for Unemployment Benefits (UB)** tumbled in December after spiking in November. December's drop off was inconsistent with the more ominous indicators. Total initial claims for 2014 were down 14.3 percent from 2013, the fifth straight year of declining initial claims.

by Dave Senf

United States Index

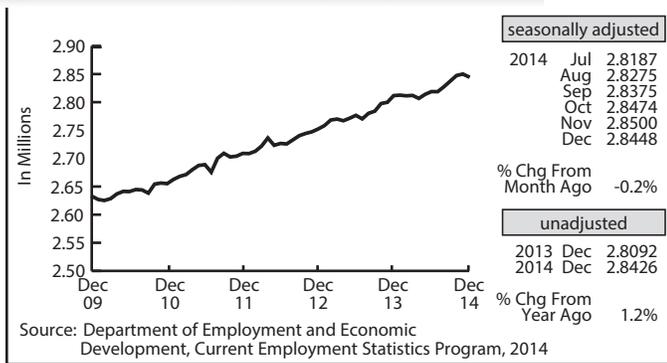


Source: The Federal Reserve Bank of Philadelphia, 2014

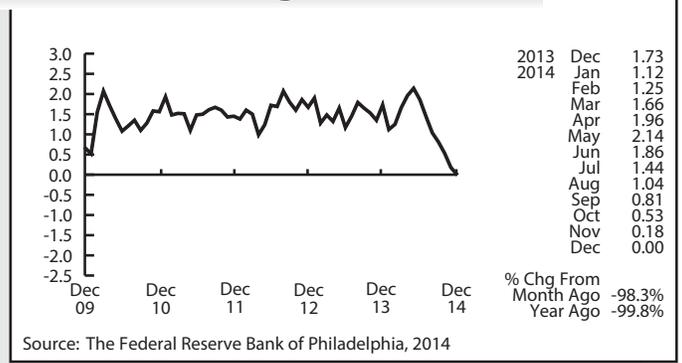
Note: All data except for Minnesota's PMI have been seasonally adjusted. See the feature article in the Minnesota Employment Review, May 2010, for more information on the Minnesota Index.

Minnesota Economic Indicators

Wage and Salary Employment



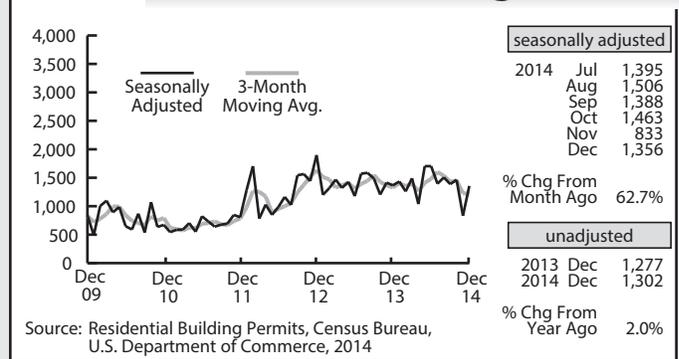
Minnesota Leading Index



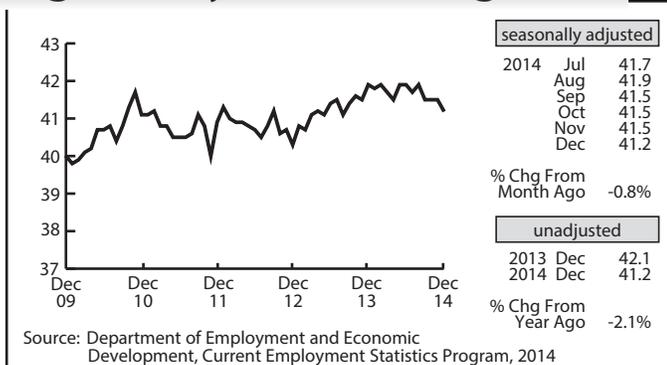
Purchasing Managers' Index



Residential Building Permits



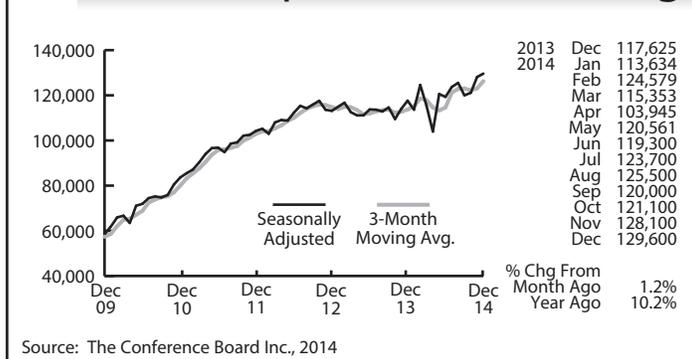
Average Weekly Manufacturing Hours



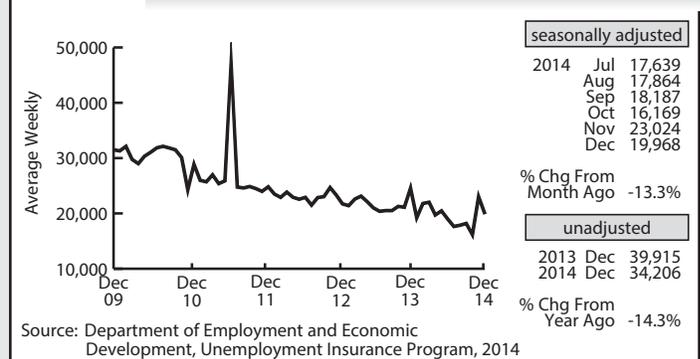
Manufacturing Earnings



Online Help-Wanted Advertising



Initial UB Claimants



Review

Minnesota Employment



DEED

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DEED.lmi@state.mn.us
Internet :
mn.gov/deed/lmi

Labor Market Information

Help Line:

651.259.7384

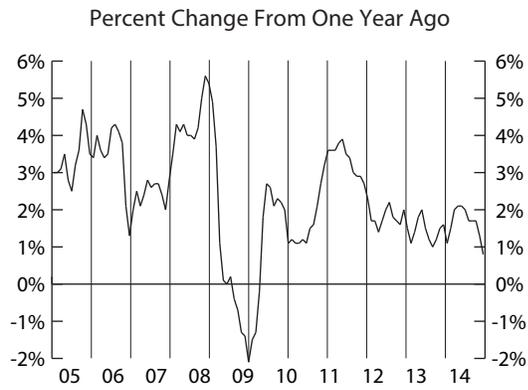
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U.S. Consumer Price Index for All Urban Consumers (CPI-U)

The CPI-U declined 0.4 percent in December on a seasonally adjusted basis. The gasoline index continued to fall sharply, declining 9.4 percent and leading to the decrease in the all items index. The fuel oil index also fell sharply, and the energy index posted its largest one-month decline since December 2008. The food index rose 0.3 percent. The index for all items less food and energy was unchanged. The all items index increased 0.8 percent over the last 12 months.

The official BLS press release can be found at:
www.bls.gov/news.release/pdf/cpi.pdf



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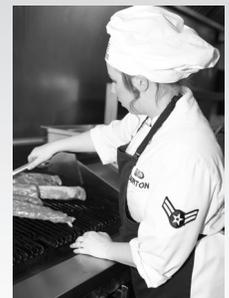
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What's Going On?

The State of MN has been selected as just one of six states to participate in a National Governors Association Policy Academy grant on Military Veteran Licensure and Certification. The goals of the grant were twofold: Reduce the time returning Service Members collect unemployment compensation, and shorten the length of time spent in school earning credits for training they already had in the Military. Minnesota State Colleges, working in partnership with DEED, MDVA, and various MN licensing boards, are currently working on “bridge curriculum” that will provide training that may have not been covered in a Service Member’s Military training.



Minnesota
Department of Employment and Economic Development



Follow the Yellow Brick Roads

Which paths of school and work lead students to success after graduation?

Does working while in school help students succeed in the workforce? Which academic fields have the best outcomes after graduation? Are women and ethnic minorities less at a disadvantage in the job market when they pursue certain majors? In order to answer these questions, we take a close look at the experience of recent post-secondary program completers to find out which combinations of school and work were most successful.

Labor market success has many faces and definitions but some of the most relevant are¹:

1. **Earnings** during the first years after graduation, which determine the ability to pay back student loans
2. **Employability**, or the likelihood of finding employment in Minnesota, which can matter greatly for students who do not intend to move out of state after school
3. The likelihood of finding **full-time employment** which ensures access to health care benefits and translates into higher earning potential over time.

The dataset includes post-secondary completers from 2008 to 2010 who were 30 years or younger at the time of graduation. Student records were matched with wage data from the Minnesota Unemployment Insurance program from 2005 to 2013, harmonizing the time series to follow each student from three years before graduation to three years after graduation. Covering a seven-year span allows us to capture the effect of early career experience as well as post-graduation work experience.

Research findings can be summarized as follows:

- Earnings increased with **educational level**, but work experience helped individuals make the most of their degrees. Low-intensity or delayed labor market participation during the formative years can put students at a disadvantage, especially short-term degree holders.
- Demography is still destiny in the labor force, but females and ethnic minorities can reduce wage disparities by better targeting their job search to employers in related industries or selecting majors that put them on a path of success comparable to that of males and white students.

¹Measuring job satisfaction and self-fulfillment, also among the most important outcomes of a post-secondary education, is beyond the scope of this purely quantitative analysis.

The impact of education level on earnings

Educational attainment strongly influences wages and wage growth. Figure 1 illustrates full-time earnings trends from the first to the third year after graduation, corresponding to the important period of career start-up for young students. Although undergraduate degree holders started with similar full-time earnings the first year, by the third year Bachelor's degree recipients already had more earning power. Not surprisingly, graduate degrees led to considerably higher starting wages than other educational levels, both because PhD and Master's degree completers were slightly older on average than others (27 at the time of graduation) and because advanced degrees are more selective and can open the door to very lucrative careers.²

This pattern of higher education level and higher earnings holds across different graduation cohorts, genders, and selected race groups.

Figure 1 also shows the impact of educational attainment on the likelihood of finding full-time employment. As shown by the height of the vertical bars, the share of full-time employment grows consistently by award level, ranging from 37 percent for short-term certificate recipients to 56 percent for graduate degree recipients. The share also increases over time, indicating an improvement in job quality and job stability as individuals spend more time in the labor market.

The pace of growth in full-time employment also depends on economic conditions, which in the time period examined were very weak. The data help us tell the story of the struggle of Bachelor's degree completers in the aftermath of the Great Recession. The first year after college did not go very well. Median hourly wages of \$17.41 and full-time employment of 46 percent were only slightly better than 2-year degree completers and show a predominance of occasional and/or

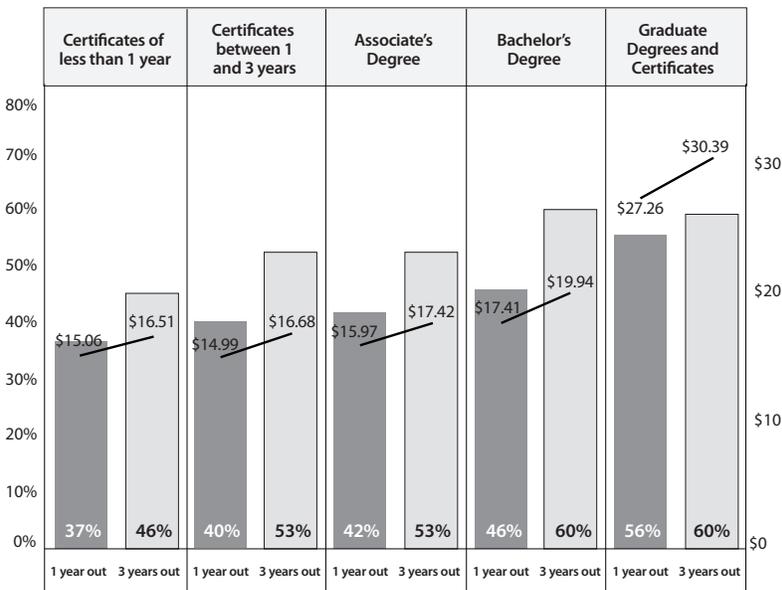
part-time employment. Low wages indicate that some had to take jobs for which they were over-qualified. However, the situation improved in the third year, when the share of full-time employment for Bachelor's degree completers jumped to 60 percent, catching up with graduate degree completers. In contrast, those with only a short-term certificate were still predominantly employed part-time three years after finishing school. In other words, the educational advantage helped students get back on a successful path as soon as the economy started to recover in 2010.

Employment pathways after graduation

Work experience has a strong influence on earnings, especially right after graduation, in the formative years for starting a career. Using seven years of wage data we can identify three distinct patterns of labor market participation:

1. Delayed entry into the workforce or no work experience until graduation or even later. Only 7 percent of graduates aged 20 to 26 who were employed in Minnesota three years after graduation fall into this category, indicating that the overwhelming majority of students worked while in school.
2. Work experience prior to graduation, but low intensity of work over the seven-year period, defined as less than 410 hours worked on average per quarter. This pathway, representing predominantly part-time employment, accounts for 67 percent of the dataset.
3. Work experience prior to graduation at high intensity, defined as 410 or more hours worked on average per quarter, which corresponds to the definition of full-time employment in a quarter. This represents 26 percent of individuals in our dataset.

Figure 1: Median Hourly Wage Growth and Full-time Status by Education Level, Young Completers (age <=30) Employed in both the First and Third Year After Graduation



Sources: MN Unemployment Insurance (UI) wage records; Minnesota Office of Higher Education (OHE) post-secondary graduation records. Data on each individual completing a degree from Jan 2008 through Dec 2010 were linked with wage records from all employers subject to Unemployment Insurance taxes in Minnesota

²Individuals who obtain these degrees probably differ from others in unobservable characteristics such as abilities, motivation, and family background which can have a considerable impact on earning power.

Wage outcomes differed markedly for these groups as illustrated in Figure 2. The most successful track is the high-intensity one, with an average of 410 hours worked per quarter over seven years. At the same level of educational attainment, the group with prior work experience but low-intensity employment had lower wages than the group with prior work experience at high intensity employment. Median wages prior to graduation were low for all groups, around \$10 an hour, until the year before graduation when the trajectories started to diverge. Both Bachelor's and Associate's degree wages for graduates in the high intensity employment pathway started growing much more steeply than their peers in the low-intensity pathway. The smaller group who waited until graduation year to start working had a bit lower wages and flatter earnings than those with the same education but prior work experience.

These results suggest that early career employment experience is rewarded in the labor market, and the decision to delay entry into the workforce can put young completers at a disadvantage especially at the sub-baccalaureate level. Late starters have to find a full-

About the Data

Included in the dataset:

- » 85,282 graduates who obtained their degrees or certificates in calendar years 2008, 2009, and 2010 at 140 private and public post-secondary institutions in Minnesota, who were less than 30 in age at the time of graduation, and who were employed in the state during the third year after graduation with an hourly wage higher than \$5. These students represent 47 percent of all graduates in the time period examined.
- » Graduates who earned more than one degree in the same academic year were classified according to the highest degree obtained.

Excluded from the dataset:

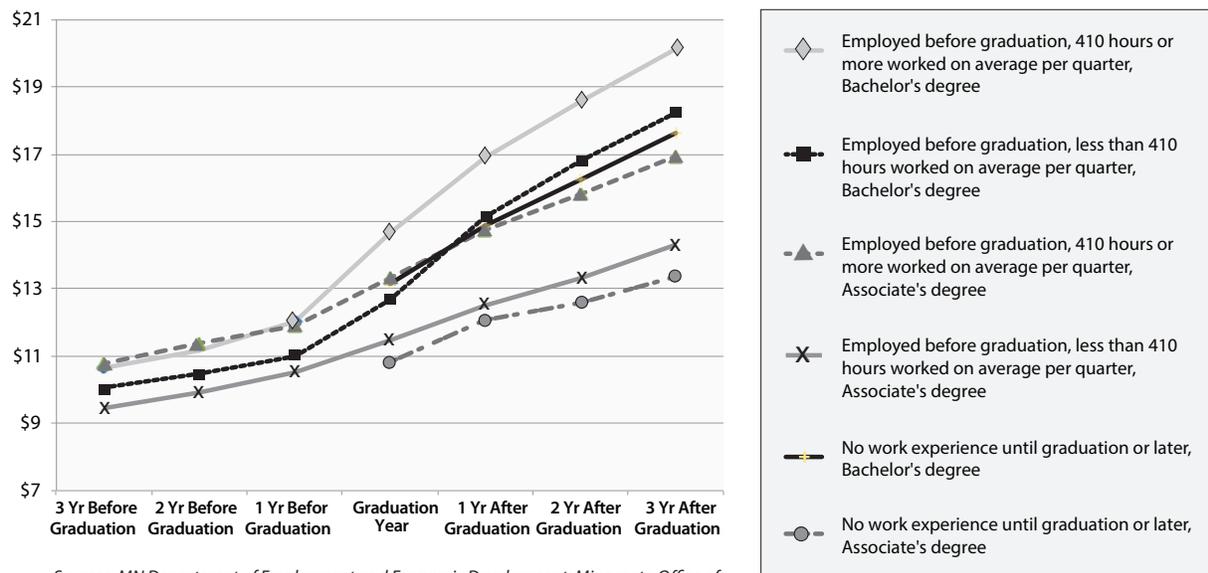
- » Graduates who went to work for the federal government, were self-employed, or left the state to work or to attend school. These employees are not covered by Minnesota's UI program.
- » Graduates in a few academic programs that suffer from reliability issues in wage records or in student records (Residency programs, Agriculture, Theology) to prevent outliers from biasing the results.

time job soon after graduation to make up for the disadvantage of not having worked before.

Does any job experience help increase future earnings prospects? The answer

is no. If accumulating hours of work before, during, and after school can be worthwhile, work experience in an industry related to one's field of study is even more valuable. Some employers value industry-related

Figure 2: Median Hourly Wage Trends for Traditional Students (Age <=26 at Graduation) by Labor Market Participation Pattern, Associate's versus Bachelor's, Graduation Cohorts 2008-2010



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

experience even more than formal educational credentials. Table 1 compares wages pre- and post-graduation for individuals who had tenure in a related industry versus those who had shorter or no industry tenure.

In all three academic fields in Table 1 the highest wages and the largest wage growth three years after graduation were achieved by completers who managed to break into an industry sector strongly related to their field of study. This is a key characteristic of successful paths into the labor market.

Industry of employment prior to graduation contributed to wage gains everywhere, but especially in Health Professions and Related programs where graduates with prior work experience in Healthcare and Social Assistance reached an hourly rate of \$22.75 representing 70 percent wage growth.

What about those who did not find a job in a related industry? The consequences of taking this path were particularly damaging for Health Professions and Related programs graduates. Those who always worked outside the Healthcare industry in the six-year period ended up with a median wage of only \$13.60 three years after graduation, representing just 28 percent more than they were making two years before graduation. This path led to under-utilization of skills or work in job roles that were probably not aligned with the training received.

The losses for working outside a related industry were more modest for completers in Construction Trades and Precision Manufacturing, mainly because construction-related and welding job opportunities can also be found outside Construction, Utilities, and Manufacturing. Still, the results

confirm that accumulating tenure in a related industry, even if not with the same firm, for a year or more is quite substantially rewarded.

Employment Pathways by Gender

The success that students have in the labor market often varies by gender. One reason is that the commitment to work, or full-time work, has traditionally been lower for women from competing family responsibilities. This might give men more time to accumulate work experience and distort wage comparisons to women. In order to reduce bias we will compare wages for full-time employees only.

As shown in Figure 3, women who were working full-time still earned less than men.

Table 1: Impact of Training-related Work Experience on Earnings, Certificates and Degrees of More than 1 but Less than 4 Years, Graduation Years 2008-2010

ACADEMIC PROGRAM	Industry of Employment 2 Years Before graduation	Median Wage 2 Years Before Graduation	Industry of Employment 3 Yrs After Graduation	Median Wage 3 Years After Graduation	Percent Wage Growth
Health Professions and Related (Registered Nursing, Practical and Vocational Nursing, Nursing Assistants, Health and Medical Assisting Services)	Healthcare and Social Assistance	\$13.39	Healthcare and Social Assistance	\$ 22.75	70%
			Outside Healthcare and Social Assistance	\$ 14.93	12%
	Outside Healthcare and Social Assistance	\$10.62	Healthcare and Social Assistance	\$18.50	74%
			Outside Healthcare and Social Assistance	\$13.60	28%
Construction Trades (Electrical and Power Transmission Installers, Plumbing, Carpentry)	Construction and Utilities	\$12.92	Construction and Utilities	\$21.03	63%
			Outside Construction and Utilities	\$17.02	32%
	Outside Construction and Utilities	\$10.46	Construction and Utilities	\$18.78	80%
			Outside Construction and Utilities	\$15.67	50%
Precision Production (Welding, CNC Machining, Sheet Metal Working)	Manufacturing	\$12.88	Manufacturing	\$19.50	63%
			Outside Manufacturing	\$17.59	47%
	Outside Manufacturing	\$9.95	Manufacturing	\$18.25	83%
			Outside Manufacturing	\$17.21	72%

Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly wages from previous years were adjusted to the 2014 CPI index for comparability.

Do these results mean women were paid less than men with the same educational level? A closer look tells a more complex and encouraging story. Figure 4 displays the largest majors with gender imbalances, comparing females' and males' third year full-time earnings. Wage gaps almost disappeared in most majors like Communication and Journalism, Biology, Psychology, and IT. Women actually earned more than males in Engineering and in Health Professions and Related programs.

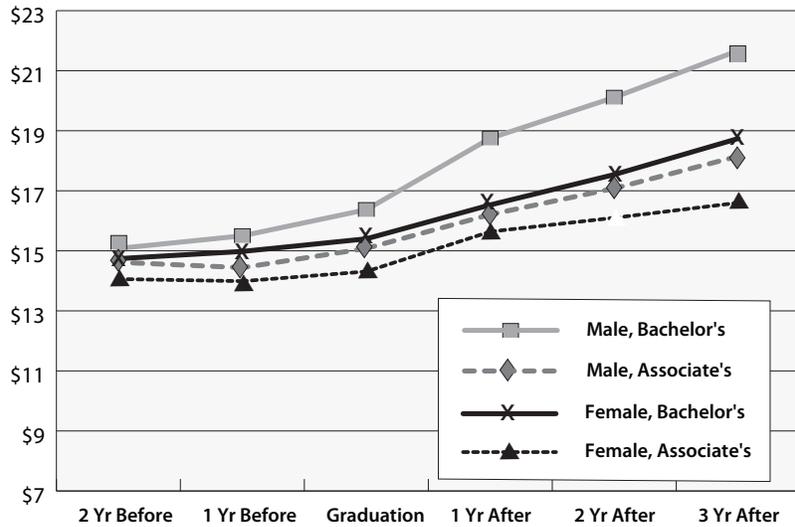
Education is the only female-dominant major where large wage gaps persisted. Women earned an hourly median that was \$3 less than males. Even women who were employed in the education sector were paid less than males overall.

In conclusion, overwhelming evidence proves that women have the ability to perform just as well as men who majored in the same academic fields. But women have been historically less likely to enroll in the highest paying majors such as Engineering, IT, and Finance.

Employment Pathways by Race/Ethnicity

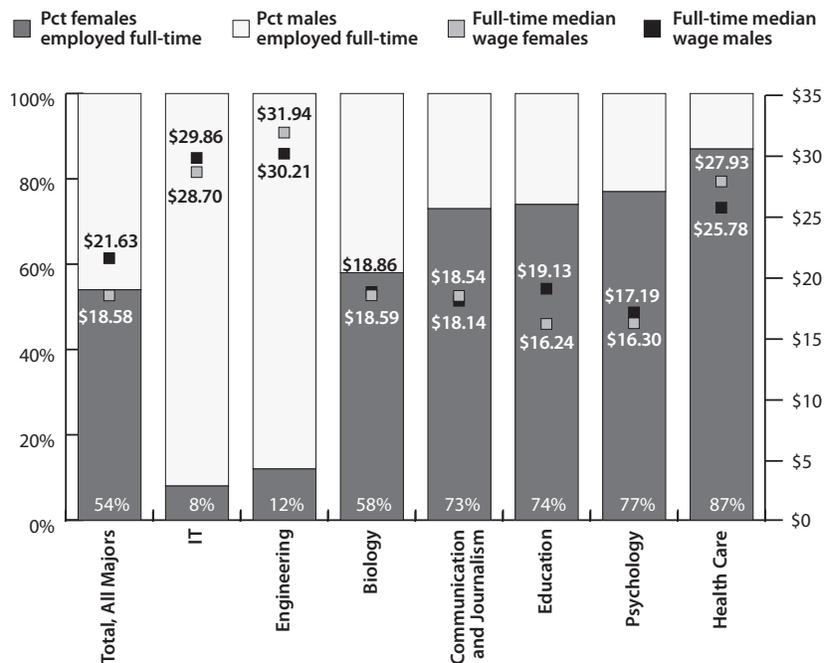
The impact of race on employment outcomes is very complex to analyze and interpret, primarily because race and ethnicity groups are very heterogeneous and differ from one another, with characteristics that are hard to measure. For example, age of award completion differed markedly across groups. Black/African American and Native American students completed a sub-baccalaureate award at the average age of 31, compared to white and Asian students who completed at the average age of 27 and 26 respectively. Minority students, except for Asians, were more likely than white students to wait a few years after high-school before enrolling in a post-secondary program.

Figure 3: Full-time Median Hourly Wage Trends for Completers Aged <=30, Associate's and Bachelor's Degree Recipients by Gender



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

Figure 4: Third Year Earnings in Male-Dominant versus Female-Dominant Majors, Bachelor's Degree Completers Age <=26 Who Were Working Full-time, Graduation Years 2008-2010



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

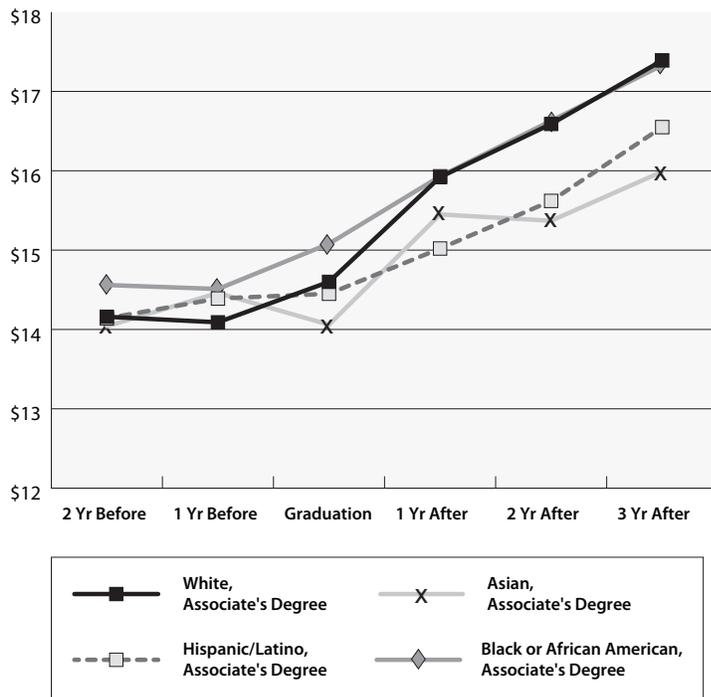
Table 2: Post-secondary Completers Aged <=30 Who Were Employed in Minnesota the Third Year After Graduation by Race/Ethnicity, Graduation Years 2008-2010

	White	Asian	Black/ African American	Hispanic /Latino	Non-resident Alien	Other, Non- white*
All Graduates, Percent	86%	5%	3%	2%	2.4%	2%
All Graduates, Number	10,9154	5,822	3,957	2,650	3,042	2,363
By Education Level						
Certificates of Less than 2 Years	9.1%	10.3%	19.9%	14.5%	0%	16.7%
Associate's Degree	23.4%	20.5%	27.8%	29.7%	5%	38.2%
Bachelor's Degree	54.8%	55.9%	43.3%	45.4%	51.6%	39.0%
Graduate Degrees and Certificates	12.6%	13.4%	9.0%	10.4%	43.3%	6.0%
	100%	100%	100%	100%	100%	100%

*This category includes the following small race/ethnicity groups: American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Two or More Races. Four percent of students did not report their race or ethnicity and were excluded from the analysis.

Source: Minnesota Office of Higher Education (OHE).

Figure 5: Full-time Median Hourly Wage Trends for Associate's Degree Completers Aged <=30 by Race/Ethnicity, Graduation Years 2008 - 2010



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

Moreover, an educational achievement gap is apparent in the higher concentration of African American and Hispanic completers in sub-baccalaureate programs compared to white and Asian students. Almost 70 percent of white and Asian students in the time period examined obtained a Bachelor's or higher as their terminal degree, compared to 52 and 56 percent for Black/African American and Hispanics respectively (see Table 2). The Non-resident Alien's category, which, at 43.3 percent, had the highest educational attainment, represents foreign-born students with valid Social Security Numbers who came to Minnesota to attend a four-year college or professional school predominantly in Business and IT. They are excluded from this analysis.

Just as we did for gender, we will look at earnings by race/ethnicity for full-time employees only, limiting the comparison to Associate's and Bachelor's degree completers (see Figure 5).

Black/African American Associate's degree completers who were employed full-time during the seven year period performed very well in the labor market. Their median wages prior to graduation were higher than those of white students overall because they were older at enrollment, but white students caught up with them one year after graduation.

Hispanic students started with low full-time wages (\$14.14 an hour) and ended at \$16.55 six years later. The wage progression of

Asian students is bumpy because of small numbers in this group and less successful than others in terms of wage growth.

Wages for white Bachelor's degree cohorts followed almost exactly the same trend as white Associate's degree cohorts. Their track is markedly different from other race groups (see Figure 6). It starts lowest because of the younger age of enrollment, climbs rapidly the first year after graduation, and then surpasses all other groups.

We also observe that the Hispanic and Asian Bachelor's cohorts significantly out-earned the Associate's cohorts. Education level is probably not the only reason for such differences. Since these racial groups are very heterogeneous in terms of socio-economic characteristics and time of migration to the U.S., it is not surprising to find a high-performing and a low-performing group.

Did wage disparities persist within the same major? For the most part, selecting a high earning major helped ethnic minorities reduce the wage gap. However, choice of major does not provide as good an explanation for race-based wage gaps as it did for gender-based wage gaps. Although white and Asian Bachelor's completers were slightly more likely to choose high-earning fields like IT, Engineering, and Business, right after graduation their wages were already higher than Black/African American graduates who majored in these same academic fields. And full-time wages for white students grew faster than full-time wages for Black/African American students with the same major, so that by the third year whites with an Engineering degree earned \$2/hr. more, those with a Business degree \$3.68/hr. more, and those with an IT degree \$4.32/hr. more than Black/African American full-time employees with the same educational background. Further research is needed to understand the reasons why the labor market experiences of some minority students differed so much from their white counterparts.

Major Matters

Choice of major is one of the most consequential in one's life and strongly determines the payoffs from higher education. In general, technical and occupation-oriented certificates and degrees tend to have a higher return on investment than non-technical degrees, at least in the short-term, because they prepare for work in specific careers. However, even students who choose technical/occupational majors could land on very different paths depending on job availability in the occupations for which the specific major prepares them.

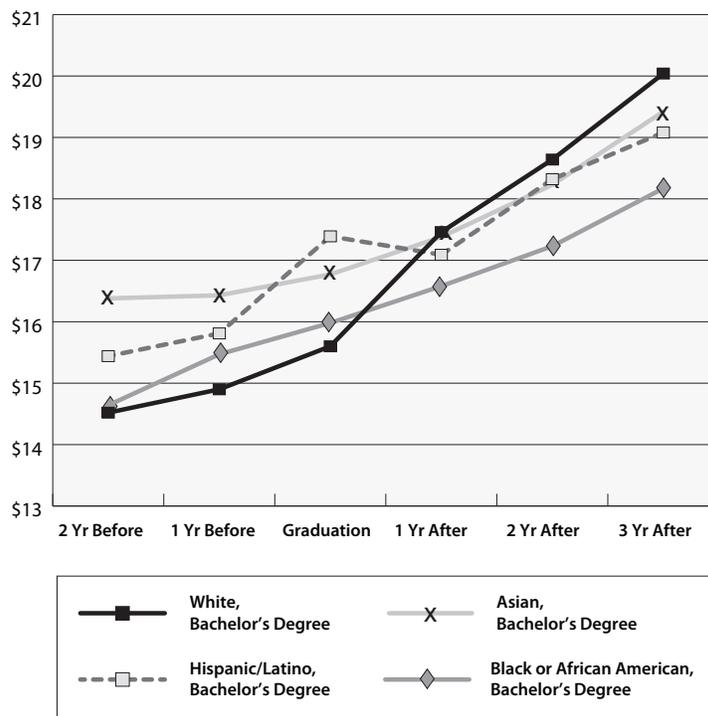
Figure 7 looks at the effect of major on earnings, employability, and full-time status. We chose four academic fields which led students to dramatically

different outcomes three years after graduation.

Earnings are the only outcome that grew consistently with education level, with the exception of Certificates in Business Administration which paid more than Associate's in the same field. But earnings varied even more by major. An Associate's degree in IT paid almost as much as Bachelor's degrees in Business Administration and Dental Support Services.

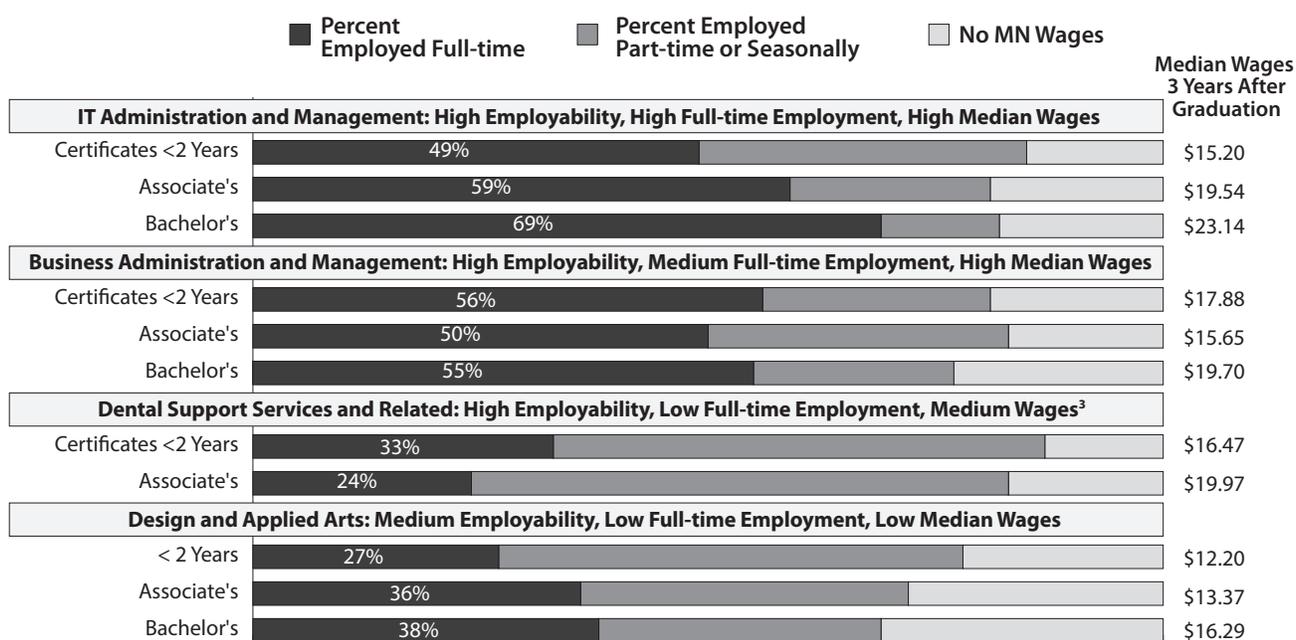
Employability was typically highest for certificate holders, ranging from 85 percent in IT Administration and Management to 78 percent in Design and Applied Arts. This is great news for individuals who do not want to commit to college. However, high job availability does not necessarily

Figure 6: Full-time Median Hourly Wage Trends for Bachelor's Degree Completers Aged ≤30, by Race/Ethnicity Graduation Years 2008 - 2010



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

Figure 7: Examples of Employment Pathways by Major, Completers Aged <=30 Who Were Employed in Minnesota Third Year After Graduation



Sources: MN Department of Employment and Economic Development; Minnesota Office of Higher Education (OHE). Hourly Wages were adjusted to the 2014 CPI index for comparability.

³Insufficient bachelor's records to draw meaningful conclusions.

translate into job quality and good wages if the available jobs are predominantly part-time like those for Dental Support Services and Design and Applied Arts. Full-time employment in these majors was less than 50 percent at every education level.

In contrast, people who majored in IT and Business Administration were highly employable and also had much higher full-time employment at all education levels. Higher shares of full-time employment typically go hand in hand with higher wages. When there are more graduates than positions to fill, jobs might be available there but with low hours and wages.

Choice of major is a key factor in determining the experience of a young graduate in terms of employability, wages, and job quality prospects because it prepares students for

occupations that may be in high or low demand. The results above underscore the importance of early career exploration for students who want to pursue post-secondary education.

Conclusions

There are many pathways into the labor market. Our research discovered that some pay off more than others, and there are practical steps students can take to make the most out of their educational investment. Specifically:

- Explore careers and local labor market conditions before committing to a major to ensure the training is geared towards growing industries or occupations that are likely to be in demand.
- Gain early career experience, especially in an industry related to the field of study.

- After graduation, target the job search towards types of businesses that are related to the field of study and do not delay entry into the labor market.

Choice of major is particularly critical for females and minority students as a way of overcoming, at least partially, the disadvantages that they face in the labor market.

Initiatives aimed at improving students choices, for example, by providing timely information on in-demand careers and growing industries, can go a long way to contribute to the alignment of workforce skills with the needs of Minnesota employers.

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