



# Minnesota Employment A Company of the Company of t

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December 2012 Data...January 2013 Issue



# Raising the Curtain on the Hidden Twin Cities Job Market

It's frequently reported that the majority (70 to 80 percent) of job openings are never advertised by employers. This is referred to as the hidden job market, suggesting that these jobs would be "hidden" from a job seeker only looking for opportunities posted online or in printed helpwanted ads. These figures are often cited as a reason why job seekers should engage in networking activities. Using numerous measures of job openings and counts of workers newly hired to a business, we can explore the prevalence of the hidden job market in the Twin Cities. What evidence is there on how many job openings in the Twin Cities labor market are not readily posted online?

#### Measuring Job Openings

There are three distinct and readily available measures of regional job openings:

- Job Vacancy Survey (JVS) data, conducted by DEED
- MinnesotaWorks.net (MnW) job bank, administered by DEED
- Help Wanted OnLine® (HWOL) data, collected by the Conference Board

To begin, DEED's Labor Market Information Office has captured the quantitative and qualitative features of job openings on its semi-annual Job Vacancy Survey (JVS) for the past 12 years. This stratified sample of about 10,000 firms covered by Minnesota's Unemployment Insurance (UI) program in the 13 regions of Minnesota is conducted during the second and fourth quarters of each year. It is a point-in-time survey, meaning that firms are asked about their job vacancies at the time they receive the survey, not the accumulation of openings over the three months of the quarter.

Businesses are asked to include positions for which they are actively recruiting and to exclude job vacancies for positions like outside contractors and consultants, which they would not consider to be employees. Job vacancies captured then are positions that would be covered by the UI program. Firms excluded from the sampling process include private households, personnel service industry establishments like temporary help wanted or staffing agencies, and businesses with no employees. Figure 1 highlights job vacancies in the Twin Cities. Regional openings peaked in second



#### Feature:

Seasonal Adjustment and Weather Extremes

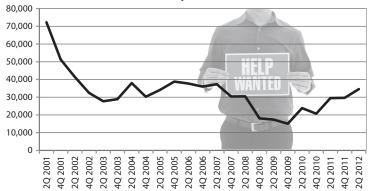
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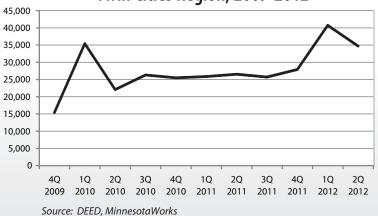


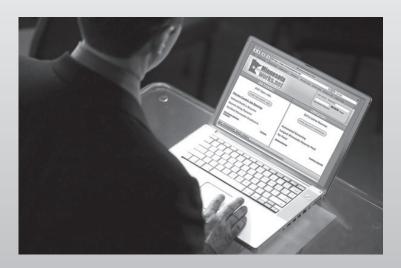
Job Vacancies
Twin Cities, 2001-2012



Source: DEED, Labor Market Information Office

Jobs Posted on MinnesotaWorks
Twin Cities Region, 2009-2012





quarter 2001 at 72,290 and bottomed out in fourth quarter 2009 at 15,037, following the official end of the Great Recession. Overall, regional job vacancies fell by half during the recession. More recently vacancies continued to increase in 2011 and 2012 with some of the largest year-over-year growth rates for job vacancies on record.

Another source to measure job openings is MinnesotaWorks.net (MnW), the state's no-fee online job bank for employers and job seekers. To post jobs, a business must create an account which is approved after being verified by the firm's State Employer Tax Number or Federal Identification Number. This ensures that the business pays withholding taxes on its employees, including Unemployment Insurance. A business also agrees to conditions that they are not soliciting business opportunities (including independent contractors paid with 1099s) or posting a job when there is no current opening in Minnesota, among other conditions.

Figure 2 provides a count of Twin Cities regional job openings posted on MnW over the past several years. Counts of openings trend closely with those captured by the JVS, including during fourth quarter 2009 that saw a low JVS count (15,037) and a similar number of jobs posted on MnW (15,444). For second quarter 2012 regional openings were also closely aligned; the JVS captured 34,587 vacancies while 34,715 jobs were posted on MnW.

It is surprising how similar the number of jobs opportunities is between the two measures. If we assume that the majority of openings are not advertised by employers, then we would expect the JVS to record more vacancies than the number posted on MnW, which is advertising openings. Yet in only three of the six quarters for which data are available were counts of job openings in the Twin Cities higher on the JVS than on MnW.

We should assume, however, that the openings recorded on the JVS or posted on MnW do not represent the full number of opportunities available for job seekers, as both explicitly exclude jobs for consultants or contractors, and the JVS further omits sampling the personnel service industry. But these measures make a good comparison as they illustrate job openings from the same relative pool of businesses, namely those who participate in the state's Unemployment Insurance program.

Finally, the Conference Board maintains a Help Wanted On-Line (HWOL) data series, which scrapes 16,000 online job boards, including corporate sites, and measures unduplicated job ads for state and Metropolitan Statistical Areas (MSAs). Monthly Minnesota and Minneapolis-St. Paul MSA figures are released along with seasonal and non-seasonal adjustments, and data are revised annually. Historical time series for MSAs are not readily available.



As of November 2012, the Minneapolis-St. Paul MSA recorded 83,300 total ads.<sup>2</sup> The region was also one of 13 across the U.S. that saw online ads increase by 100 percent or more since the end of the recession in June 2009. The Minneapolis-St. Paul region also ranks fourth nationwide with a 1.23 supply/demand rate, measuring unemployed workers for every advertised vacancy.<sup>3</sup>

Counts of online job openings can be subject to error. It is not clear if a posting is for an immediate or near-term job, or a way for the employer to build up an applicant pool for future opportunities. A recent analysis by a researcher at the Federal Reserve Bank of San Francisco found that HWOL captured more ads than the openings identified in the national Job Openings and Labor Turnover Survey (JOLTS) conducted by the Bureau of Labor Statistics and posited that HWOL either has a less strict definition of a job opening or that — despite attempts to count unduplicated ads — multiple postings were really for the same vacancy.4

Monster Worldwide, Inc. also produces a monthly Monster Employment Index aimed at presenting a snapshot of employer online recruitment activity nationwide and for the 28 largest U.S. metro markets. Counts of online postings are not available, but the Minneapolis area showed a 2 percent year-over-year growth in November 2012 with opportunities in installation, repair and maintenance, in architecture and engineering, and in life, physical, and social science occupations showing the strongest growth.<sup>5</sup> Minneapolis ranked among the five lowest growth metro markets in November 2012.

**HWOL** and Monster Employment Index often show differing trends at a statewide level. DEED's Labor Market Information Office tracks these online help-wanted advertising measures in the Minnesota Economic Indicators section of the monthly Minnesota Employment Review publication. Recent analysis noted that "[s]ince the state's share of national wage and salary employment is around 2 percent, the 2.5 percent share of national online ads suggest that labor demand in Minnesota is stronger than nationwide. Online help-wanted levels for the state suggest that job growth will continue in Minnesota at least through the rest of the year and into early 2013."6

#### Measuring New Hires

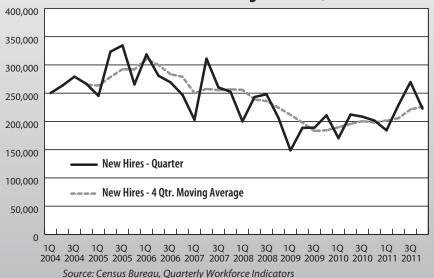
The U.S. Census Bureau's Quarterly Workforce Indicators data capture a measure of new hires or the total number of accessions that were also not employed with any firm covered by UI during the previous four quarters. This quarterly measure of new hires then provides an estimated number of workers who started a job at a firm that they had not held within the past year. New hires do not include self-employed workers or independent contractors, as these workers are generally not covered under state

Unemployment Insurance programs. It would also not include a measure of people who move from one job to another within the same company.

Figure 3 shows quarterly new hires in Twin Cities' region firms between 2004 and 2011. Averaging anywhere from a high of 310,500 new hires in first quarter 2006 to a low of 183,100 new hires in third quarter 2009, these numbers are substantially larger than JVS and MnW job openings. During the Great Recession, the number of new hires fell by 16.5 percent.



New Hires in Twin Cities Region Firms, 2004-2011



#### Hidden Job Market

Figure 4 brings together counts of job openings and new hires for the Twin Cities region. Comparing HWOL counts to new hires reveals that only 23.7 to 33.7 percent of opportunities, or new employees to a Twin Cities firm, were posted online. Correspondingly, up to 75 percent of new hires to regional firms were "hidden."

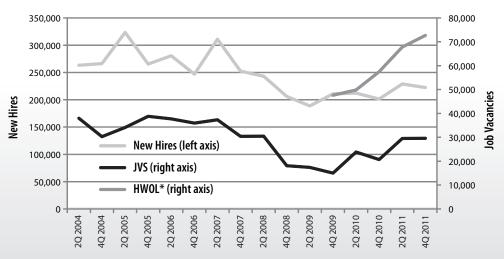
There may be good reasons why employers don't actively recruit publicly or keep job opportunities hidden. Firms may first rely on referrals from existing employees to fill open positions which translate into hires. According to a 2012 CareerXroads survey, 28 percent of external sources of hires were through

referrals.<sup>8</sup> Recruiters increasingly use social media sites like LinkedIn, Facebook and Twitter to find potential employees. Three out of four recruiters surveyed by Jobvite in 2012 hired candidates through social networks.

This analysis can also give us a sense of why point-in-time estimates of job vacancies might not correspond to new hires. The hiring cycle — from firm's initial idea that a job is necessary to the creation of a position description, *etc.* — starts well before a job is posted, whether that be online or even internal. There are many opportunities along this cycle to find, recruit, or hire someone before an opportunity ever becomes visible for us either through an online ad or captured on a survey.<sup>9</sup>

by Rachel Vilsack Labor Market Information Office Minnesota Department of Employment and Economic Development

Job Vacancies and New Hires in the Twin Cities, 2004-2011



\*HWOL monthly estimates are averaged over the quarter presented for the Minneapolis-St. Paul 13-county MSA Source: DEED, Labor Market Information Office & Census Bureau, Quarterly Workforce Indicators

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<sup>&</sup>lt;sup>1</sup>Interestingly, it's also often reported that 80 percent of jobs are found through networking. This statistic is almost always attributed to a Bureau of Labor Statistics (BLS) report that I have never been able to confirm.

<sup>&</sup>lt;sup>2</sup>The Conference Board, Help Wanted OnLine Data Series. Numbers presented are seasonally adjusted.

<sup>&</sup>lt;sup>3</sup>The supply/demand rate is for October 2012. Three MSAs ranked above Minneapolis-St. Paul: Washington DC, Oklahoma City, and Salt Lake City.

<sup>&</sup>lt;sup>4</sup>Hobijn, Bart. "The Industry-Occupation Mix of U.S. Job Openings and Hires." Federal Reserve Bank of San Francisco Working Paper Series, July 2010. Accessed December 28, 2012; www.frbsf.org/publications/economics/papers/2012/wp12-09bk.pdf.

<sup>&</sup>lt;sup>5</sup>Monster Employment Index – Minneapolis. Accessed December 31, 2012: www.about-monster.com/sites/default/files/employment-index/MonsterLEI\_MIN\_Nov12.pdf.

<sup>&</sup>lt;sup>6</sup>Senf, Dave. Minnesota Economic Indicators, Minnesota Employment Review, October 2012. Accessed December 31, 2012:

<sup>&</sup>lt;sup>7</sup>HWOL data presented here are limited and represent not seasonally adjusted numbers as reported in monthly press releases from the Conference Board.

<sup>&</sup>lt;sup>8</sup>CareerXroads, Sources of Hire Survey.

<sup>&</sup>lt;sup>9</sup>Jobvite, 2012 Social Recruitment Survey.

## Minnesota Business Developments

NORTHERN

#### Northern

Alabama-based **Altec HiLine LLC** plans to expand its manufacturing facility in Duluth. The expansion is scheduled to

occur in spring 2013 and will include manufacturing equipment upgrades and related machinery that will result in adding jobs. Altec HiLine is the leading manufacturer of the highest-reaching vehicle-mounted aerial device in the country for use in the electric utility, telecommunications, tree care, construction, and lights and signs industries. To support the expansion, the city of Duluth, through the Board of St. Louis County, is asking DEED for a \$250,000 Minnesota Investment Fund loan to Altec HiLine to be applied to manufacturing equipment purchases. The loan may be forgivable if the company meets job-creation and private-investment criteria.

The city of Duluth and the Duluth Area Chamber of Commerce hosted a Leaders in Veteran Employment seminar recently to encourage companies to make hiring veterans a priority. The half-day seminar, held at the College of St. Scholastica, helped attendees understand how to bridge the language barrier that may exist between a veteran's resume and an employer. Speakers also offered insights into challenges commonly associated with veteran employment: solutions to recruiting, hiring and retaining veterans; and best practices developed by the area employers. Among speakers were U.S. Senator Amy Klobuchar, Minnesota Lt. Gov. Yvonne Prettner Solon, business development and workforce leaders from DEED, and several business leaders and recruitment experts from northern Minnesota.

Northwestern Mutual Life Insurance Company recently announced plans

Twin Cities Metro Area

to add more than 5,500 jobs in 2013, including 306 at its two Twin Cities offices in Minneapolis and Mendota Heights. The Twin Cities positions will be 104 financial representatives and 202 financial representative interns. The company forecasts that more than 50 percent of the financial representatives will be professionals seeking a career change or those looking for career advancement. Supported by Northwestern Mutual network of specialists, training programs and mentoring opportunities, interns have access to the resources, tools and assistance they need to help their clients and build their practices. Interestingly, 45 percent of Northwestern Mutual's current senior field managers joined the company as interns.

Cabela's, a leader in the outdoor lifestyle market, plans to open a fourth store in Minnesota in fall 2014. The new, 85,000 sq. ft. store will employ about 185 full-and part-time workers on a site adjacent to Tamarack Village Shopping Center in Woodbury. Construction is scheduled to start in fall 2013. It will be significantly smaller than the Rogers and Owatonna stores, which are 185,000 sq. ft. and 150,000 sq. ft., respectively, but larger than the East Grand Forks store, which is 60,000 sq. ft.

The leading technology manufacturer **Emerson Process Management Rosemount** plans to open a new site in Shakopee that will add 500 jobs in 2013.

About 400 of the 500 jobs will be new, and the rest will be transferred from other facilities, according to Michael Leek, Shakopee

community development director.

Emerson has one of its headquarters in
Chanhassen that hosts 1,500 employees
in the metro area. The company
provides intellectual property solutions

and information, analyses of patent data and related metrics in a proprietary methodology to identify the most influential organizations globally.

Central

**Nash Finch**, a publicly traded wholesale food distributor based in Minneapolis, closed its facility in Cedar Rapids, Iowa,

at the end of 2012 and will consolidate the operation, with a workforce of 160 employees in St. Cloud and Omaha, Nebraska. The move will create an estimated 80 jobs in the St. Cloud area.

After **Capital One** received approval from the Federal Reserve to acquire St. Cloud-based **ING Direct USA** in a \$9 billion deal, it announced that the acquisition will be named Capital One 360. The acquisition made Capital One the fifth-largest bank in the U.S. Forty jobs have been added to St. Cloud's **Capital One 360** office since the acquisition took place.

**Taco Del Mar** opened its first restaurant in Marshall, creating 20 jobs.

**Swiss Valley Farms**, the corporate owner of Rochester Cheese, has decided to move its production from Spring

SOUTHERN

Southern

Valley to Rochester. This transition will shift Rochester Cheese from storing and distributing cheese to producing it and create 50 more jobs at the new site. The target date for completion of this \$3.25 million project is March 2013. The company intends to keep the Spring Valley facility in an active capacity as a warehousing and contingency production site.

by Mohamed Mourssi

# Labor Force Estimates Numbers are unadjusted unless otherwise labeled. Source: Department of Employment and Economic Development, Local Area Unemployment Statistics, and North Dakota Job Service, 2013.

County/	L	abor Fo	orce	Eı	mploym	nent	Un	employ	ment		Rate of mployr	
Area	Dec	Nov	Dec	Dec	Nov	Dec	Dec	Nov	Dec	Dec	Nov	Dec
	2012	2012	2011	2012	2012	2011	2012	2012	2011	2012	2012	2011
United States ('000s) (Seasonally adjusted) (Unadjusted)	155,511 154,904	155,319 154,953	153,887 153,373	143,305 143,060	143,277 143,549	140,790 140,681	12,206 11,844	12,042 11,404	13,097 12,692	7.8% 7.6	7.8% 7.4	8.5% 8.3
Minnesota (Seasonally adjusted) (Unadjusted)	2,976,103 2,964,169	2,973,487 2,968,370	2,981,754 2,967,170	2,811,267 2,803,166	2,805,498 2,818,557	2,810,789 2,796,420	164,836 161,003	167,989 149,813	170,965 170,750	5.5 5.4	5.6 5.0	5.7 5.8
Metropolitan Statistical Areas (MSA)* MplsSt. Paul MSA	1 857 894	1,866,880	1,853,618	1,762,526	1,774,571	1,751,893	95,368	92,309	101,725	5.1	4.9	5.5
Duluth-Superior MSA	144,227	143,527	143,413	134,802	134,755	133,855	9,425	8,772	9,558	6.5	6.1	6.7
Rochester MSA	101,560	101,966	102,260	97,000	97,773	97,306	4,560	4,193	4,954	4.5	4.1	4.8
St. Cloud MSA	109,179	108,629	108,213	103,007	103,417	101,856	6,172	5,212	6,357	5.7	4.8	5.9
Grand Forks MSA Fargo-Moorhead MSA	53,056 120,090	53,271 121,041	54,680 121,603	50,865	51,456 117,460	52,245 117,118	2,191 4,367	1,815 3,581	2,435 4,485	4.1	3.4 3.0	4.5 3.7
Region One Kittson	<b>51,353</b> 2,612	<b>50,755</b> 2,555	<b>51,410</b> 2,625	<b>48,442</b> 2,484	<b>48,475</b> 2,443	<b>48,345</b> 2,474	<b>2,911</b> 128	<b>2,280</b> 112	<b>3,065</b> 151	<b>5.7</b> 4.9	<b>4.5</b> 4.4	<b>6.0</b> 5.8
Marshall	5,585	5,469	5,624	5,102	5,098	5,175	483	371	449	8.6	6.8	8.0
Norman	3,708	3,621	3,751	3,499	3,444	3,523	209	177	228	5.6	4.9	6.1
Pennington	9,727	9,654	9,446	9,136	9,250	8,888	591	404	558	6.1	4.2	5.9
Polk	18,249	18,115	18,227	17,287	17,372	17,121	962	743	1,106	5.3	4.1	6.1
Red Lake	2,407	2,402	2,434	2,259	2,279	2,247	148	123	187	6.1	5.1	7.7
Roseau	9,065	8,939	9,303	8,675	8,589	8,917	390	350	386	4.3	3.9	4.1
<b>Region Two</b> Beltrami	<b>41,137</b> 22,805	<b>40,746</b> 22,837	<b>40,980</b> 22,639	<b>37,808</b> 21,173	<b>37,851</b> 21,342	<b>37,613</b> 20,943	<b>3,329</b> 1,632	<b>2,895</b> 1,495	<b>3,367</b> 1,696	<b>8.1</b> 7.2	<b>7.1</b> 6.5	<b>8.2</b> 7.5
Clearwater	4,249	4,107	4,347	3,716	3,727	3,861	533	380	486	12.5	9.3	11.2
Hubbard	9,196	9,157	9,080	8,362	8,437	8,206	834	720	874	9.1	7.9	9.6
Lake of the Woods	2,391	2,182	2,350	2,224	2,032	2,215	167	150	135	7.0	6.9	5.7
Mahnomen  Region Three	2,496	2,463	2,564	2,333	2,313	2,388	163	150	176	6.5	6.1	6.9
	<b>168,195</b>	<b>167,664</b>	<b>167,904</b>	<b>156,661</b>	<b>156,770</b>	<b>156,244</b>	<b>11,534</b>	<b>10,894</b>	<b>11,660</b>	<b>6.9</b>	<b>6.5</b>	<b>6.9</b>
Aitkin	7,278	7,265	7,498	6,690	6,744	6,841	588	521	657	8.1	7.2	8.8
Carlton	17,721	17,583	17,725	16,525	16,513	16,433	1,196	1,070	1,292	6.7	6.1	7.3
Cook	3,027	3,000	3,059	2,832	2,834	2,848	195	166	211	6.4	5.5	6.9
Itasca	23,673	23,807	23,473	21,885	22,036	21,670	1,788	1,771	1,803		7.4	7.7
Koochiching	6,654	6,590	6,882	6,082	5,989	6,339	572	601	543	8.6	9.1	7.9
Lake	6,145	6,206	6,155	5,780	5,856	5,784	365	350	371	5.9	5.6	6.0
St. Louis	103,697	103,213	103,112	96,867	96,798	96,329		6,415	6,783	6.6	6.2	6.6
City of Duluth	45,454	45,314	45,237	42,805	42,774	42,567	2,649	2,540	2,670	5.8	5.6	5.9
Balance of St. Louis County	58,243	57,899	57,875	54,062	54,024	53,762	4,181	3,875	4,113		6.7	7.1
Region Four Becker	<b>126,825</b> 17,980	<b>125,883</b> 17,828	<b>125,964</b> 17,978	<b>120,222</b> 16,878	<b>120,668</b> 16,905	<b>119,031</b> 16,810	<b>6,603</b> 1,102	<b>5,215</b> 923	<b>6,933</b> 1,168	<b>5.2</b> 6.1	<b>4.1</b> 5.2	<b>5.5</b> 6.5
Clay	35,782	35,639	35,036	34,198	34,466	33,291	1,584	1,173	1,745	4.4	3.3	5.0
Douglas	21,102	21,061	20,859	20,081	20,200	19,778	1,021	861	1,081	4.8	4.1	5.2
Grant	3,184	3,116	3,115	2,960	2,953	2,898	224	163	217	7.0	5.2	7.0
Otter Tail	30,876	30,561	30,970	28,995	29,100	29,064	1,881	1,461	1,906	6.1	4.8	6.2
Pope	6,385	6,301	6,151	6,094	6,070	5,850	291	231	301	4.6	3.7	4.9
Stevens	6,160	6,103	6,268	5,925	5,916	6,035	235	187	233	3.8	3.1	3.7
Traverse	1,699	1,639	1,855	1,617	1,574	1,756	82	65	99	4.8	4.0	5.3
Wilkin	3,657	3,635	3,732	3,474	3,484	3,549	183	151	183	5.0	4.2	4.9
Region Five	82,954	82,707	85,318	76,195	76,985	78,195	6,759	5,722	7,123	8.1	6.9	8.3
Cass	<b>13,835</b>	<b>13,941</b>	<b>14,176</b>	<b>12,506</b>	<b>12,746</b>	<b>12,765</b>	<b>1,329</b>	<b>1,195</b>	<b>1,411</b>	<b>9.6</b>	<b>8.6</b>	<b>10.0</b>
Crow Wing	32,381	32,638	33,161	29,736	30,307	30,352	2,645	2,331	2,809	8.2	7.1	8.5
Morrison	17,670	17,358	18,516	16,182	16,257	16,992	1,488	1,101	1,524	8.4	6.3	8.2
Todd	12,619	12,390	12,934	11,811	11,728	12,091	808	662	843	6.4	5.3	6.5
Wadena	6,449	6,380	6,531	5,960	5,947	5,995	489	433	536	7.6	6.8	8.2
<b>Region Six East</b> Kandiyohi	<b>64,885</b> 24,609	<b>64,574</b> 24,536	<b>65,806</b> 24,418	<b>60,906</b> 23,350	<b>61,087</b> 23,464	<b>61,561</b> 23,108	<b>3,979</b> 1,259	<b>3,487</b> 1,072	<b>4,245</b> 1,310	<b>6.1</b> 5.1	<b>5.4</b> 4.4	<b>6.5</b> 5.4
McLeod	19,305	19,283	19,979	17,983	18,085	18,522	1,322	1,198	1,457	6.8	6.2	7.3
Meeker	12,593	12,481	12,651	11,735	11,744	11,705	858	737	946	6.8	5.9	7.5
Renville	8,378	8,274	8,758	7,838	7,794	8,226	540	480	532	6.4	5.8	6.1

<sup>\*</sup>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, 2013.

Country											Rate of	;
County/	La	bor Fo	rce	Er	nploym	ent	Une	employ	ment		mployn	
Area	Dec 2012	Nov 2012	Dec 2011	Dec 2012	Nov 2012	Dec 2011	Dec 2012	Nov 2012	Dec 2011	Dec 2012	Nov 2012	Dec 2011
Region Six West	25,384	25,020	25,658	24,020	23,964	24,255	1,364	1,056	1,403	5.4%	4.2%	5.5%
Big Stone	2,843	2,835	2,933	2,692	2,720	2,753	151	115	180	5.3	4.1	6.1
Chippewa Lac Qui Parle	7,311 4,149	7,214 4,118	7,313 4,314	: 6,914 : 3,976	6,904 3,973	6,921 4,114	397 173	310 145	392 200	: 5.4 : 4.2	4.3 3.5	5.4 4.6
Swift	5,241	5,135	5,247	4,892	4,891	4,903	349	244	344	6.7	4.8	6.6
Yellow Medicine	5,840	5,718	5,851	5,546	5,476	5,564	294	242	287	5.0	4.2	4.9
Region Seven East	85,467	84,782	85,535	78,756	79,304	78,287	6,711	5,478	7,248	7.9	6.5	8.5
Chisago :	29,109	28,989	29,267	27,236	27,420	27,082	1,873	1,569	2,185	6.4	5.4	7.5
Isanti Kanabec	21,001 8,237	20,832 8,114	20,990 8,088	19,495 7,333	19,627 7,431	19,384 7,218	1,506 904	1,205 683	1,606 870	7.2	5.8 8.4	7.7 10.8
Mille Lacs	12,485	12,353	12,243	11,299	11,360	10,995	1,186	993	1,248	9.5	8.0	10.2
Pine	14,635	14,494	14,947	13,393	13,466	13,608	1,242	1,028	1,339	8.5	7.1	9.0
Region Seven West	229,085	228,100	228,116	215,320	216,487	213,532	13,765	11,613	14,584	6.0	5.1	6.4
Benton	22,652	22,420	22,467	21,186	21,270	20,949	1,466	1,150	1,518	6.5	5.1	6.8
Sherburne : Stearns	49,945 86,527	49,711 86,209	49,944 85,746	: 46,713 : 81,821	47,028 82,147	46,448 80,907	3,232 4,706	2,683 4,062	3,496 4,839	: 6.5 : 5.4	5.4 4.7	7.0 5.6
Wright	69,961	69,760	69,959	65,600	66,042	65,228	4,361	3,718	4,731	6.2	5.3	6.8
Region Eight	68,580	67,668	70,336	65,686	65,052	67,221	2,894	2,616	3,115	4.2	3.9	4.4
Cottonwood	6,524	6,396	6,868	6,217	6,063	6,562	307	333	306	4.7	5.2	4.5
Jackson	6,276	6,196	7,128	6,026	5,960	6,862	250	236	266	4.0	3.8	3.7
Lincoln Lyon	3,509 15,371	3,441 15,285	3,484 15,447	3,368 14,723	3,318 14,712	3,335 14,741	141 648	123 573	149 706	4.0	3.6 3.7	4.3 4.6
Murray	6,043	5,931	6,040	5,798	5,731	5,767	245	200	273	4.1	3.4	4.5
Nobles	11,603	11,494	11,830	11,183	11,098	11,324	420	396	506	3.6	3.4	4.3
Pipestone	5,446	5,412	5,508	5,220	5,220	5,245	226	192	263	4.1	3.5	4.8
Redwood Rock	8,372 5,436	8,195 5,318	8,463 5,568	7,918 5,233	7,812 5,138	8,018 5,367	454 203	383 180	445 201	5.4	4.7 3.4	5.3 3.6
							:			:		
Region Nine Blue Earth	<b>132,335</b> 38,685	<b>132,650</b> 39,291	<b>134,104</b> 38,882	<b>125,509</b> 36,972	<b>126,483</b> 37,680	<b>126,921</b> 37,087	<b>6,826</b> 1,713	<b>6,167</b> 1,611	<b>7,183</b> 1,795	<b>5.2</b> 4.4	<b>4.6</b> 4.1	<b>5.4</b> 4.6
Brown	15,336	15,270	15,728	14,573	14,589	14,944	763	681	784	5.0	4.5	5.0
Faribault	7,652	7,506	7,794	7,213	7,100	7,336	: 439	406	458	5.7	5.4	5.9
Le Sueur	14,605	14,550	14,540	13,497	13,672	13,372	1,108	878 543	1,168	7.6 5.0	6.0 4.9	8.0 5.2
Martin Nicollet	11,197 19,742	11,032 20,052	11,781 19,875	: 10,639 : 18,913	10,489 19,276	11,170 18,972	558 829	776	611 903	4.2	3.9	4.5
Sibley	9,217	9,067	9,281	8,691	8,634	8,722	526	433	559	5.7	4.8	6.0
Waseca	10,267	10,305	10,635	9,683	9,762	10,041	584	543	594	5.7	5.3	5.6
Watonwan	5,634	5,577	5,588	5,328	5,281	5,277	: 306 :	296	311	5.4	5.3	5.6
Region Ten	271,960	272,261	273,495	258,536	259,971	258,815	13,424	12,290	14,680	4.9	4.5	5.4
Dodge	10,904	10,858	11,011	10,324	10,406	10,356	580	452	655	5.3	4.2	5.9
Fillmore Freeborn	10,893 16,482	10,827 16,455	11,178 16,806	: 10,307 : 15,562	10,308 15,589	10,503 15,811	586 920	519 866	675 995	5.4	4.8 5.3	6.0 5.9
Goodhue	26,092	25,945	26,374	24,765	24,737	24,881	1,327	1,208	1,493	5.1	4.7	5.7
Houston	10,937	10,859	10,950	10,306	10,304	10,232	631	555	718	5.8	5.1	6.6
Mower	21,536	21,540	21,826	20,574	20,596	20,777	962	944	1,049	4.5	4.4	4.8
Olmsted	79,029	79,436	79,550	75,616	76,219	75,855	3,413	3,217	3,695	4.3	4.0	4.6
City of Rochester :	57,601 32,997	57,954 32,915	57,961 33,102	55,124 31,023	55,563 31,162	55,298 31,001	2,477 1,974	2,391 1,753	2,663 2,101	: 4.3 : 6.0	4.1 5.3	4.6 6.3
Steele	21,648	22,027	21,401	20,557	21,029	20,206	1,091	998	1,195	5.0	4.5	5.6
Wabasha	11,626	11,672	11,700	11,060	11,148	11,095	566	524	605	4.9	4.5	5.2
Winona	29,816	29,727	29,597	28,442	28,473	28,098	: 1,374 :	1,254	1,499	4.6	4.2	5.1
Region Eleven		1,625,556		1,535,105	1,545,462		80,905	80,094	86,142	5.0	4.9	5.3
Anoka Carver	191,231 50,847	191,959 50,990	190,741 50,606	180,551 48,293	181,769 48,619	179,527 48,019	: 10,680 : 2,554	10,190 2,371	11,214 2,587	5.6	5.3 4.6	5.9 5.1
Dakota	232,540	233,483	232,257	221,347	222,840	220,091	11,193	10,643	12,166	4.8	4.6	5.2
Hennepin	659,232	664,363	657,891	627,380	631,612	623,821	31,852	32,751	34,070	4.8	4.9	5.2
City of Bloomington	48,152	48,397	48,058	45,811	46,120	45,551	2,341	2,277	2,507	4.9	4.7	5.2
City of Minneapolis	215,421	217,264	214,989	204,609	205,989	203,448	10,812	11,275	11,541	5.0	5.2	5.4
Ramsey City of St. Paul	274,192 146,743	276,008 147,747	273,478 146,447	: 259,794 : 138,602	261,547 139,537	258,320 137,815	: 14,398 : 8,141	14,461 8,210	15,158 8,632	5.3	5.2 5.6	5.5 5.9
Scott	74,569	74,785	74,471	70,791	71,269	70,390	3,778	3,516	4,081	5.1	4.7	5.5
Washington :	133,399	133,968	133,095	126,949	127,806	126,229	6,450	6,162	6,866	4.8	4.6	5.2











## **Industrial Analysis**

#### Overview

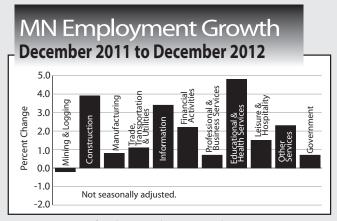
Monthly employment increased by 9,100 in December. November estimates experienced an upward revision to post an even larger gain of 12,300. This was the third gain in the last four months with a net increase of 27,600 since August. Monthly growth was well distributed with eight of 11 supersectors showing monthly gains against two losses and one supersector with no change. The largest gain was in trade, transportation and utilities with an increase of 3,900. Other large gains were posted in professional and business services, up 2,500, educational and health services, up 1,800, and also in manufacturing and information, both up 1,400. The only large decline came in construction with a loss of 3,500. Turning to over-the-year comparisons, the state showed an increase of 1.9 percent, substantially higher than the rate of growth for the nation as a whole. Ten of 11 supersectors showed annual gain, with only mining and logging posting a negligible loss. Educational and health services was by far the most important area of job growth posting a gain of 22,700, equal to a gain of 4.8 percent. Trade, transportation and utilities added 5,600. Three supersectors showed gains over 3,000, including financial activities, construction, and leisure and hospitality. Manufacturing, professional and business services, other services and government showed gains ranging from 2,400 to 2,900.

#### Mining and Logging

There was no change in mining and logging employment over the past month. Compared to last year there is also only the most negligible loss of less than 50.

#### Construction

Construction experienced a loss of 3,500 in December to erase all of the jobs gained in the previous three months. This rather swift turnaround makes it difficult to evaluate whether construction is showing a clear upward trend or has yet to turn the corner to more consistent employment growth. On the positive side, housing permits have improved



Source: Department of Employment and Economic Development, Current Employment Statistics, 2013. substantially in 2012, home prices have been increasing, and the volume of houses for sale has dropped much closer to a normal level. Overall the housing recovery should be fueling at least some consistent employment growth. Despite the large monthly loss, the supersector showed an annual gain of nearly 3,300 with growth occurring in both specialty trade contractors and construction of buildings.

#### Manufacturing

Manufacturing employment increased for the third consecutive month, up 1,400 in December equal to the combined growth for October and November. All of the monthly gain came in durable goods manufacturing which added 1,500 jobs. Most industries in durable goods showed at least minor improvement over the past month. Two areas showed strong monthly results including fabricated metal product manufacturing and miscellaneous manufacturing. Over the last year the supersector showed a gain of 2,500 jobs with all of the annual gain coming from durable goods manufacturing where 4,700 jobs were added. The largest gain among more detailed industries was fabricated metal manufacturing with a gain of 3,300. One positive note is that the Minnesota Business Conditions Index moved above the break-even point of 50 up to 57.2 after being below the break-even point for the previous five months. All of the components of the index were above 50, indicating conditions are in place to support economic growth.

#### Trade, Transportation, and Utilities

Employment in trade, transportation and utilities increased for a third consecutive month in December. December's gain of 3,900 was largely due to a gain of 3,200 in retail trade. Retail trade, after experiencing a decline over the first half of 2012, has added 6,400 jobs in the second half of the year. After this growth, seasonally adjusted employment levels are at their highest levels since early 2009. Compared to last year, employment showed an increase of 1.1 percent with gains in each of the three major component industry groupings. Wholesale trade added 2,000 jobs largely in nondurable goods wholesaling. Retail trade showed a gain of 0.8 percent, a rate of growth in line with the modest improvements in retail trade sales compared to last year. Transportation, warehousing and utilities posted a gain 1,200 jobs.

#### Information

Seasonally adjusted estimates showed an increase of 1,400 in the information supersector. This increase reversed a loss of 1,100 in November and continues an eight-month period where the indicated monthly change has alternated between employment increases and losses. The December gain is not apparent in the two more detailed industries, meaning that monthly growth is apparently coming from outside traditional publishing and telecommunication industries. On an annual basis information added 1,800 jobs with all of this increase coming outside of traditional publishing and telecommunications.

<sup>\*</sup>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 increased by 600 over the past month in financial activities industries. This gain erased a loss of 500 that was posted over the previous two months. The monthly increase was centered in credit intermediation and insurance carriers, which outweighed losses posted in real estate rental and leasing. Seasonally adjusted employment now exceeds its prerecession high point. Compared to December 2012 supersector employment increased 2.2 percent, equal to about 3,800. Every industry breakout showed over-the-year increases including 1,300 in credit intermediation, 1,000 in insurance carriers, and 400 in real estate and rental and leasing.

#### Professional and Business Services

Professional and business services employment increased by 2,500 in December. There was a gain of 1,900 in professional, scientific and technical services after a gain of 100 in November. This growth was still insufficient to erase the losses posted in September and October. Architectural, engineering and related was a strong performer. The remainder of the monthly growth came from administrative and support services. While the monthly gain reversed some recent losses, comparing current data to one year ago shows a gain of 0.7 percent which is the lowest rate of over-the-year growth since March 2010 and much weaker than in recent months. Employment services was up only 100 jobs. This lack of growth is worth watching as this industry is among the first to show the effects of change in economic growth. Professional, scientific and technical services was still a source of strong growth adding 6,000 jobs over the past 12 months. Management of companies showed a loss of 1,000.

#### Educational and Health Services

Strong gains in health care and social assistance outweighed losses in educational services to allow a net increase of 1,800 jobs. This is the sixth consecutive month of growth. Educational services showed a loss of 1,300 as colleges showed particular weakness for the month. This could simply be related to the timing of layoffs at the end of the fall term. Health care and social assistance added 3,100 jobs easily erasing educational losses. The continued growth trend in the supersector reflected a strong 4.8 percent rate of annual growth. All the major components showed strong annual growth, particularly ambulatory health care with an annual gain of 6.8 percent.

#### Leisure and Hospitality

Following November's strong gains, the leisure and hospitality supersector added a pedestrian 800 jobs in December. All of the job growth was in accommodation and food services with the addition of 1,400 jobs for the month, and with growth particularly centered in limited service

## Industrial Analysis

restaurants. After a very strong November showing, art, entertainment and recreation posted a loss of 600. On an annual basis leisure and hospitality showed a gain of 1.5 percent with even stronger growth after November's positive turn. This level of growth is substantially below the national rate of 2.6 percent. All components showed annual growth but limited service restaurants and arts, entertainment and recreation contributed most of the job growth over the past year.

#### Other Services

Other services lost 700 jobs over the past month, the first monthly loss for the supersector since August 2012. Repair and maintenance was the locus of most of the monthly decline. Compared to one year ago, the supersector showed a gain of 2,700, with religious, grantmaking, civic, professional and similar organizations providing nearly all of this growth.

#### Government

Estimates showed government employment up 900 jobs for the month, with all of the growth coming in state government employment, where 2,500 jobs were added. Local government lost 1,500 jobs. Additions in state government were centered in state government education. It is probable that much of the monthly gain is due to the timing of layoffs after the fall semester; therefore, we are likely to see some counteracting losses in January and/ or February. Compared to last December, government employment was up 2,900. State government was up 2,000, with state government education accounting for 1,400 of these new jobs. Local government was up 1,300 with nearly all gains in education as well.

by Jerry Brown

In 1,000's

## Seasonally Adjusted Nonfarm Employment

Industry	December	November	October
	2012	2012	2012
Total Nonagricultural Goods-Producing Mining and Logging Construction	<b>2,735.2</b> <b>404.4</b> 6.6 92.8	<b>2,726.1 406.5</b> 6.6 96.3	<b>2,713.8 404.1</b> 6.7 95.0
Manufacturing Service-Providing	305.0	303.6	302.4
	<b>2.330.8</b>	<b>2,319.6</b>	<b>2,309.7</b>
Trade, Transportation, and Utilities Information Financial Activities Professional and Business Services Educational and Health Services Leisure and Hospitality Other Services Government	503.2	499.3	495.2
	54.1	52.7	53.8
	178.0	177.4	177.8
	339.7	337.2	337.3
	494.5	492.7	488.9
	231.8	231.0	228.0
	118.4	119.1	117.8
	411.1	410.2	410.9

Source: Department of Employment and Economic Development Current Employment Statistics, 2013.

## Regional Analysis

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

Employment in the Twin Cities MSA fell 0.6 percent (11,425) over the month but increased 1.5 percent (25,257) over the year. The loss primarily stemmed from declines in Mining, Logging, and Construction employment of 12.4 percent (7,105) over the month, but the industry was up 1.4 percent (701) over the year. Most other private sector industries saw minor losses of less than 1.0 percent, although a few had small gains. Government employment declined 0.7 percent (1,702) over the month but was up 1.0 percent (2,262) over the year.

#### Duluth - Superior MSA

Employment in the Duluth MSA increased 0.2 percent (203) over the month and 2.1 percent (2,674) over the year. The largely stable overall employment number disguises some industry-level volatility. Mining, Logging, and Construction fell 6.8 percent (585) over the month, while Trade, Transportation, and Utilities (up 0.9 percent, 213), Financial Activities (up 1.8 percent, 97), and Educational and Health Services (up 0.8 percent, 253) counterbalanced the losses. Government Employment increased 0.5 percent (147) over the month and 3.0 percent (817) over the year.

#### Rochester MSA

Employment in the Rochester MSA declined 0.8 percent (872) over the month and increased 0.9 percent (872) over the year. Most of the annual growth came from Educational and Health Services (up 2.0 percent, 816) and from Financial Activities (up 5.4 percent, 133). Financial Activities saw a slight increase over the month but did not significantly offset other losses. The largest monthly declines came from Government, which was down 4.7 percent (523) over the month and down 1.1 percent (121) over the year.

#### St. Cloud MSA

Employment in the St. Cloud MSA declined 0.6 percent (651) over the month but was up 2.8 percent (2,758) over the year. Most industries saw small, seasonally appropriate declines over the month. The exception was Mining, Logging, and Construction (down 8.5 percent, 421), but the industry was up 4.2 percent (182) over the year. Government employment declined 0.1 percent (23) over the month and 2.2 percent (354) over the year. The largest part of the annual decline was in State government (down 4.7 percent, 234).

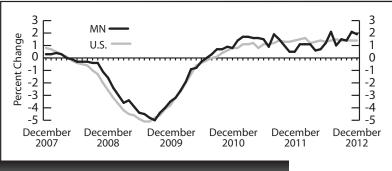
#### Fargo-Moorhead MSA

Employment in the Fargo-Moorhead MSA declined 0.8 percent (1,080) over the month but was up 3.3 percent (4,185) over the year. The declines were evenly split between the private sector (down 0.8 percent, 933) and Government (down 0.8 percent, 147). The largest private sector changes were in Mining, Logging, and Construction (down 7.1 percent, 595) and in Leisure and Hospitality (down 3.4 percent, 483). Those were seasonal decreases, however, and both industries were up over the year, 10.2 percent and 3.8 percent, respectively.

#### Grand Forks-East Grand Forks MSA

Employment in the Grand Forks-East Grand Forks MSA declined 0.8 percent (425) over the month of December but was up 1.1 percent (573) over the year. The monthly losses were largely driven by Mining, Logging, and Construction (down 7.5 percent, 213), but there were significant declines in Manufacturing (down 2.9 percent, 91), Other Services (down 2.1 percent, 41), and Government (down 0.6 percent, 84). While several industries saw increases, all were of less than 1.0 percent.





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

by Amanda Rohrer

# Employer Survey of Minnesota Nonfarm Payroll Jobs, Hours and Earnings

Numbers are unadjusted. Note: State,	regional an	d local estin	nates from pa	ast months (	for all tables	s pages 11-1	3) may be	revised fro	m figures p	oreviously p	oublished.
	:	Jobs*		Percent						and Earr	—
Industry	(	Thousand	ds)	Fro	m**	Average Earn			Weekly urs	Average Earn	
madstry	: Dec	Nov	Dec	Nov	Dec	Dec	Dec	Dec	Dec	Dec	Dec
	2012	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011
TOTAL NONFARM WAGE AND SALARY	2,732.7	2,751.4	2,682.0	-0.7%	1.9%	<u> </u>	_	: :	_	_	_
GOODS-PRODUCING	397.0	411.6	391.2	-3.6	1.5	<u> </u>	_	<u> </u>	_	_	_
Mining and Logging	6.4	6.7	6.5	-4.0	-0.2	:		:			
Construction	86.7	100.6	83.4	-13.8	3.9	: _	_	<u> </u>	_	_	_
Specialty Trade Contractors	56.5	67.4	54.6	-16.1	3.6	\$1,162.55	\$1,184.26	38.7	38.5	\$30.04	\$30.76
Manufacturing	303.8	304.3	301.3	-0.2	0.8	778.67		40.2	41.2	19.37	19.18
Durable Goods	197.2	197.3	192.6	0.0	2.4	785.65	804.40	39.8	41.4	19.74	19.43
Wood Product Manufacturing Fabricated Metal Production	9.6	9.6 41.4	10.3 38.7	: -0.3 : 1.3	-6.8 8.5	: =	_	: _	_ :	=	_
Machinery Manufacturing	31.9	32.0	31.4	-0.1	1.6	: _	_	: _	_	_	_
Computer and Electronic Product	45.5	45.4	46.0	0.3	-1.2	: -	_	: –	_	<u> </u>	_
Navigational, Measuring, Electromedical and Control	24.6	24.6	24.8	0.2	-0.6	: -	_	: –	_	_	_
Transportation Equipment	10.7	10.5	10.7	1.8	-0.7	: -	_	<u> </u>	-	_	_
Medical Equipment and Supplies Manufacturing Nondurable Goods	16.5 106.6	16.4 107.1	16.2 108.8	0.3	2.0 -2.0	: — : 768.92	— 766.63	: — 40.9	40.8	— 18.80	— 18.79
Food Manufacturing	43.1	43.2	43.3	-0.4	-0.5	. 700.92	700.03	40.9		— 10.00	
Paper Manufacturing	33.3	33.3	34.7	0.0	-4.1	: –	_	: –	_	_	_
Printing and Related	23.9	23.8	24.2	0.5	-1.3	<u> </u>	_	<u> </u>	_	_	_
SERVICE-PROVIDING	2,335.7	2,339.8	2,290.7	-0.2	2.0	-	_	<u>:</u> –	-	_	_
Trade, Transportation, and Utilities	511.7	508.9	506.1	0.5	1.1	<u>:</u> –	_	:	_	_	_
Wholesale Trade	127.9	127.3	125.9	0.5	1.6	972.90	889.82	38.5	37.2	25.27	23.92
Retail Trade	290.6	289.4	288.3	: 0.4	0.8	: 363.44	357.17	28.0	29.3	12.98	12.19
Motor Vehicle and Parts Building Material and Garden Equipment	28.8	28.9 22.9	29.1 22.8	-0.5 -1.7	-0.9 -1.0	: -		: –	_	_	_
Food and Beverage Stores	48.6	47.9	49.0	1.5	-0.8	: _	_	: _			
Gasoline Stations	22.7	22.7	22.5	0.0	1.1	: _	_	<u> </u>	_	_	_
General Merchandise Stores	67.1	66.5	68.0	0.9	-1.4	319.36	334.28	30.1	31.3	10.61	10.68
Transportation, Warehouse, Utilities	93.2	92.3	91.9	1.0	1.4	<u> </u>			_		
Transportation and Warehousing Information	80.4 <b>54.1</b>	79.4 <b>53.2</b>	79.2 <b>52.3</b>	1.3 1.7	1.5 <b>3.4</b>	711.84	675.17 <b>754.54</b>	40.7 <b>34.8</b>	39.3 <b>34.9</b>	17.49 <b>24.40</b>	17.18 <b>21.62</b>
Publishing Industries	20.3	20.3	21.0	0.0	-3.5	043.12	/34.34 —	. 34.0		24.40	
Telecommunications	12.5	12.5	13.0	-0.3	-4.1	: -	_	: –	_	_	_
Financial Activities	177.6	176.7	173.9	0.5	2.2	: -	_	: –	_	_	_
Finance and Insurance	142.9	141.8	139.5	0.7	2.4	: 1,001.42	934.02	37.2	36.7	26.92	25.45
Credit Intermediation	: 55.1 : 18.5	54.8 18.5	53.9 18.4	; 0.6 : 0.1	2.3 0.8	869.25	622.87	36.6	34.7	23.75	17.95
Securities, Commodity Contracts, and Other Insurance Carriers and Related	65.4	64.8	64.3	0.1	1.7	: _	_	: —	_	_	_
Real Estate and Rental and Leasing	34.8	34.9	34.4	-0.3	1.2	: _	_	_	_	_	_
Professional and Business Services	342.5	343.9	340.1	-0.4	0.7	: –	_	<u> </u>	_	_	_
Professional, Scientific, and Technical Services	135.2	133.4	129.2	1.3	4.6	: –	_	: -	-	_	_
Legal Services	18.8	18.7	18.8	0.8	0.0	<u> </u>	_	: -	-	_	_
Accounting, Tax Preparation Computer Systems Design	14.7 32.6	14.5 32.8	14.4 30.8	: 1.5 -0.5	2.3 5.8	-	_	: -	_	_	_
Management of Companies and Enterprises	70.8	32.6 71.0	71.7	-0.3	-1.4	: <del>-</del>	_	: _	_	_	_
Administrative and Support Services	136.6	139.5	139.1	-2.1	-1.9	: -	_	: –	_	_	_
Educational and Health Services	495.9	497.2	473.3	-0.3	4.8	: -	_	: –	_	_	_
Educational Services	70.8	74.0	67.2	: -4.3	5.3	: -	_	<u> </u>	-	_	_
Health Care and Social Assistance Ambulatory Health Care	425.1 137.7	423.2 137.1	406.0 128.9	0.5	4.7 6.8	: — : 1,106.20	1 011 84	: — : 34.1	34.0	32.44	— 29.76
Offices of Physicians	62.7	62.7	62.1	0.4	1.0	: 1,100.20		34.1	J4.0 —	32.44 —	29.70
Hospitals	105.0	105.0	100.9	0.1	4.1	: -	_	: –	_	_	_
Nursing and Residential Care Facilities	105.2	103.9	102.0	1.3	3.1	424.08	386.30	28.5	27.3	14.88	14.15
Social Assistance	77.2	77.3	74.1	-0.1	4.1	: -	_	: -	-	_	_
Leisure and Hospitality	219.7	221.2	<b>216.5</b>	- <b>0.7</b>	1.5	: -	_	: -	_	_	_
Arts, Entertainment, and Recreation Accommodation and Food Services	: 27.8 : 191.9	28.3 192.8	26.2 190.3	: -2.1 : -0.5	6.1 0.8	: _	_	: _	_	_	_
Food Services and Drinking Places	169.4	169.1	168.6	0.1	0.4	220.73	216.89	20.4	20.5	10.82	10.58
Other Services	118.9	119.2	116.2	-0.3	2.3	-	_	: -	_	_	_
Religious, Grantmaking, Civic, Professional Organizations	73.2	72.9	70.6	0.4	3.7						
Government Federal Government	: <b>415.3</b> : 31.4	<b>419.4</b> 31.3	<b>412.4</b> 31.8	: <b>-1.0</b> : 0.5	<b>0.7</b> -1.1	Note: 1	Not all indu	stry subaro	ups are show	wn for every	major
State Government	102.1	103.0	100.1	-0.9	2.0	1	ndustry cat		,	creiy	,
State Government Education	65.1	66.0	63.7	-1.4	2.2		ŕ	,			
Local Government	281.7	285.1	280.5	-1.2	0.4	* -	Totals may	not add bed	cause of rou	nding.	
Local Government Education	140.6	140.1	139.6	0.4	0.7	**	Percent cha	inge based	on unround	ed numbers	i.
				:							

Source: Department of Employment and Economic Development, Current Employment Statistics, 2013.

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

Industry	(T	Jobs* housand	s)	Percent Fro	Change m**	Average		Vorkers I Average \ Hou	Veekly	and Earr Average Earni	Hou
illadstry	Dec 2012	Nov 2012	Dec 2011	Nov 2012	Dec 2011	Dec 2012	Dec 2011	Dec 2012	Dec 2011	Dec 2012	Dec 201
OTAL NONFARM WAGE AND SALARY	1,764.8	1,776.3	1,739.6	-0.6%	1.5%	_	_	_	_	_	_
GOODS-PRODUCING	228.1	235.3	228.0	-3.0	0.1	_	_	_	_	_	_
Mining, Logging, and Construction	50.1	<b>57.2</b>	49.4	-12.4	1.4	_	_	_	_	_	_
Construction of Buildings Specialty Trade Contractors	12.4 36.7	12.5 41.8	12.2 35.2	-0.8 -12.1	2.2 4.4	\$1,281.34	¢1 122 62	40.6	38.2	\$31.56	\$29.
Manufacturing	1 <b>78.0</b>	178.1	1 <b>78.6</b>	0.0	-0.3	802.34	839.96		41.5	<b>20.21</b>	20
Durable Goods	124.8	124.8	122.5	0.0	1.9	821.76	850.30	39.3	41.6	20.91	20
Fabricated Metal Production	28.8	28.5	26.7	1.1	7.9	_	_	_	_	_	_
Machinery Manufacturing	19.3	19.3	19.1	-0.2	0.9	_	_	_	_	_	_
Computer and Electronic Product	34.7	34.6	35.4	0.2	-2.0	_	_	_	_	_	_
Navigational, Measuring, Electromedical and Control	23.1	23.0	23.2	0.2	-0.7	_	_	_	_	_	
Medical Equipment and Supplies Manufacturing Nondurable Goods	15.5 53.2	15.4 53.2	15.2 56.1	0.4 0.0	2.1 -5.0	761.54	817.41	40.4	41.2	18.85	19
Food Manufacturing	12.2	12.3	12.0	-0.4	-5.0 2.4	701.34	017.41 —		41.2	- 10.03	-
Printing and Related	14.1	14.0	14.4	0.8	-1.8	_	_	_	_	_	_
SERVICE-PROVIDING	1,536.7	1,541.0	1,511.6	-0.3	1.7	_	_	_	_	_	_
Trade, Transportation, and Utilities	322.1	319.9	320.1	0.7	0.6	_	_	_	_	_	_
Wholesale Trade	81.4	80.6	80.5	1.0	1.1	1,046.80	940.68	38.9	37.9	26.91	24
Merchant Wholesalers - Durable Goods	43.3	42.7	42.5	1.4	1.8			_	_		
Merchant Wholesalers - Nondurable Goods	23.9	23.9	24.1	0.0	-0.8	241.70	266.20	20.2		12.12	
Retail Trade Food and Beverage Stores	179.9 28.5	179.1 28.0	176.9 27.7	0.5 1.9	1.7 2.8	341.78	366.30	28.2	30.0	12.12	1.
General Merchandise Stores	42.2	41.5	41.5	1.6	2.6 1.5	328.13	339.37	31.4	32.6	10.45	1
Transportation, Warehouse, Utilities	60.8	60.2	62.7	1.0	-3.1		—				_
Utilities	7.4	7.5	7.4	-0.9	-0.2	_	_	_	_	_	_
Transportation and Warehousing	53.4	52.7	55.3	1.3	-3.5	765.19	712.27	43.7	41.8	17.51	1
Information	38.0	37.9	38.1	0.3	-0.2	793.94	933.61	33.9	37.6	23.42	24
Publishing Industries	16.1	16.1	16.4	0.0	-1.8	_	_	_	_	_	
Telecommunications Financial Activities	8.8	8.9	9.3	-1.0	-5.6	_	_		_	_	_
Financial Activities Finance and Insurance	<b>140.6</b> 114.3	<b>140.5</b> 114.0	<b>138.0</b> 111.6	<b>0.0</b> 0.2	<b>1.8</b> 2.4	1,100.33	1,060.70	38.5	37.6	28.58	2
Credit Intermediation	39.0	38.9	38.3	0.2	1.8	1,100.55	- 1,060.70		37.0 —	20.30	_
Securities, Commodity Contracts, and Other	17.1	17.0	16.5	0.5	3.6	_	_	_	_	_	_
Insurance Carriers and Related	54.8	54.7	54.2	0.2	1.1	_	_	_	_	_	-
Real Estate and Rental and Leasing	26.3	26.6	26.4	-0.9	-0.4	_	_	_	_	_	-
Professional and Business Services	277.9	280.2	275.3	-0.8	0.9	_	_	_	_	_	-
Professional, Scientific, and Technical Services	108.5	107.3	102.7	1.1	5.7	_	_	_	_	_	_
Legal Services	15.7	15.7	15.7	0.5	0.1	_	_		_	_	
Architectural, Engineering, and Related Computer Systems Design	15.4 27.5	15.0 27.7	15.1 25.2	2.9 -0.7	2.4 8.9	_	_	_	_	_	_
Management of Companies and Enterprises	62.4	62.6	63.5	-0.7	-1.7	_	_	_	_	_	_
Administrative and Support Services	106.9	110.3	109.2	-3.1	-2.0	_	_	_	_	_	_
Employment Services	51.5	52.7	51.6	-2.3	-0.2	_	_	_	_	_	-
Educational and Health Services	291.1	292.0	281.0	-0.3	3.6	_	_	_	_	_	-
Educational Services	43.9	45.1	43.5	-2.7	0.9	_	_	_	_	_	-
Health Care and Social Assistance	247.2	246.9	237.5	0.1	4.1	_	_	_	_	_	_
Ambulatory Health Care	81.0	80.3	75.9	8.0	6.7	_	_		_	_	
Hospitals Nursing and Residential Care Facilities	59.9 53.8	59.8 53.7	58.4 53.1	0.0 0.3	2.5 1.3	_	_	_	_	_	_
Social Assistance	52.5	53.7	50.1	-0.9	4.9	_	_	_	_	_	_
Leisure and Hospitality	150.6	1 <b>52.0</b>	146.5	-0.9	2.8	_	_	_	_	_	_
Arts, Entertainment, and Recreation	21.4	21.8	20.3	-2.2	5.3	_	_	_	_	_	-
Accommodation and Food Services	129.3	130.2	126.2	-0.7	2.4	256.90	251.72	22.3	22.1	11.52	1
Food Services and Drinking Places	117.4	117.7	114.2	-0.3	2.8	252.82	239.54	22.1	21.6	11.44	1
Other Services	81.1	81.4	79.5	-0.4	2.0	_	_	_	_	_	
Repair and Maintenance	14.0	14.0	13.6	-0.6	2.5	_	_	_	_	_	
Religious, Grantmaking, Civic, Professional Organizations  Government	47.2	47.1	45.4	0.1	4.0						
Federal Government	<b>235.3</b> 20.2	<b>237.0</b> 20.1	<b>233.0</b> 20.6	- <b>0.7</b> 0.2	<b>1.0</b> -1.9	Note	Not all indu	stry subgroup	s are cho	wn for every	maio
State Government	70.0	70.3	67.9	-0.4	3.0				3 ale \$110\	virioi every	Пајо
State Government Education	44.5	44.8	43.0	-0.4	3.4		industry cate	egory.			
State dovernment Education											
Local Government	145.1	146.6	144.5	-1.0	0.4	*	Totals may r	not add beca	use of rou	nding.	

Source: Department of Employment and Economic Development, Current Employment Statistics, 2013.

### **Employer Survey**

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. C	Cloud N	ЛSA		Rochester MSA						
:		Jobs		% Chg.	From	:	Jobs		% Chg. I	From		
	Dec 2012	Nov 2012	Dec 2011	Nov 2012	Dec 2011	Dec 2012	Nov 2012	Dec 2011	Nov 2012	Dec 2011		
:	102,351	103,002	99,593	-0.6%	2.8%	101,862	102,734	100,990	-0.8%	0.9%		
:	19,312	19,854	19,255	-2.7	0.3	13,358	13,850	13,384	-3.6	-0.2		
:	4,534	4,955	4,352	-8.5	4.2	2,928	3,382	2,936	-13.4	-0.3		
:	14,778	14,899	14,903	-0.8	-0.8	10,430	10,468	10,448	-0.4	-0.2		
:	83,039	83,148	80,338	-0.1	3.4	88,504	88,884	87,606	-0.4	1.0		
:	21,541	21,491	20,715	0.2	4.0	15,687	15,598	15,627	0.6	0.4		
:	4,064	4,031	3,897	0.8	4.3	2,188	2,170	2,164	0.8	1.1		
:	13,730	13,700	13,170	0.2	4.3	11,162	11,095	11,169	0.6	-0.1		
:	3,747	3,760	3,648	-0.3	2.7	2,337	2,333	2,294	0.2	1.9		
:	1,561	1,565	1,527	-0.3	2.2	1,480	1,473	1,481	0.5	-0.1		
:	4,267	4,256	4,097	0.3	4.1	2,614	2,535	2,481	3.1	5.4		
:	9,263	9,334	8,811	-0.8	5.1	4,904	4,883	4,900	0.4	0.1		
:	18,667	18,726	17,511	-0.3	6.6	42,059	42,070	41,243	0.0	2.0		
:	8,566	8,567	8,216	0.0	4.3	7,974	8,009	7,930	-0.4	0.6		
:	3,411	3,423	3,344	-0.4	2.0	3,172	3,179	3,209	-0.2	-1.2		
:	15,763	15,786	16,117	-0.1	-2.2	10,614	11,137	10,735	-4.7	-1.1		

rom

## **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

<b>Duluth-Superior MSA</b>							
	Jobs		% Chg.	F			
Dec	Nov	Dec	Nov				

2012	2012	2011	Nov 2012	2011
129,547	129,344	126,873	0.2%	2.1%
15,270	15,844	15,220	-3.6	0.3
7,974	8,559	7,633	-6.8	4.5
7,296	7,285	7,587	0.2	-3.8
114,277	113,500	111,653	0.7	2.4
23,480	23,267	23,315	0.9	0.7
2,866	2,848	2,859	0.6	0.2
15,254	15,086	14,995	1.1	1.7
5,360	5,333	5,461	0.5	-1.8
1,364	1,347	1,382	1.3	-1.3
5,428	5,331	5,296	1.8	2.5
7,675	7,666	7,503	0.1	2.3
30,827	30,574	29,903	0.8	3.1
11.597	11.593	11.156	0.0	4.0

#### Mankato MSA

Malikato MSA											
	Jobs		% Chg.	From							
Dec 2012	Nov 2012	Dec 2011	Nov 2012	Dec 2011							
53,832	54,959	53,260	-2.1%	1.1%							
9,169	9,478	9,212	-3.3	-0.5							
44,663	45,481	44,048	-1.8	1.4							
9,027	9,398	8,863	-3.9	1.9							

## **Employer Survey**

## **Industry**

GOODS-PRODUCING

Mining, Logging, and Construction

SERVICE-PROVIDING

Trade, Transportation, and Utilities

Transportation, Warehouse, Utilities

Information

**Educational and Health Services** 

Manufacturing

Wholesale Trade

Retail Trade

**Financial Activities** 

**Professional and Business Services** 

Other Services

Leisure and Hospitality Government

#### **Grand Forks-East Grand Forks MSA**

5,612

27,486

0.7

0.5

% Chg. From

-2.1

-0.6

-2.1

-1.2

-0.2

3.0

5.566

28.156

**Jobs** 

1,994

14,576

5,603 28,303

#### Dec Nov Dec Nov Dec 2012 2012 2011 2012 2011 55,291 55,716 54,718

,	55,7 10	J .,,	0.070	
5,661	5,965	5,637	-5.1	0.4
2,634	2,847	2,540	-7.5	3.7
3,027	3,118	3,097	-2.9	-2.3
49,630	49,751	49,081	-0.2	1.1
11,911	11,942	11,848	-0.3	0.5
2,037	2,066	1,918	-1.4	6.2
7,934	7,932	7,970	0.0	-0.5
1,940	1,944	1,960	-0.2	-1.0
642	641	646	0.2	-0.6
1,737	1,724	1,648	0.8	5.4
3,139	3,131	3,080	0.3	1.9
9,515	9,504	9,425	0.1	1.0
6.241	6.239	5.771	0.0	8.1

1,994

14,669

#### Fargo-Moorhead MSA

raigo-Mooilleau MSA												
	Jobs		% Chg. F	rom								
Dec 2012	Nov 2012	Dec 2011	Nov 2012	Dec 2011								
132,375	133,455	128,190	-0.8%	3.3%								
17,461	18,096	16,731	-3.5	4.4								
7,827	8,422	7,103	-7.1	10.2								
9,634	9,674	9,628	-0.4	0.1								
114,914	115,359	111,459	-0.4	3.1								
28,804	28,695	28,293	0.4	1.8								
8,400	8,412	7,970	-0.1	5.4								
15,811	15,716	15,745	0.6	0.4								
4,593	4,567	4,578	0.6	0.3								
3,470	3,459	3,456	0.3	0.4								
9,385	9,295	9,084	1.0	3.3								
15,360	15,485	14,122	-0.8	8.8								
19,937	19,799	19,440	0.7	2.6								
13,576	14,059	13,083	-3.4	3.8								
5,090	5,128	5,030	-0.7	1.2								
19,292	19,439	18,951	-0.8	1.8								

Source: Department of Employment and Economic Development, Current Employment Statistics, and North Dakota Job Service, 2013.

1,953

14,492

## Minnesota Economic Indicators

## Highlights

The Minnesota Index finished off the year by rising 0.1 percent in December. Climbing payroll employment and another drop in the state's unemployment rate propelled the index to its 14th consecutive increase. The U.S. index climbed for the 38th straight month, advancing 0.2 percent.

Minnesota's economy as measured by the Minnesota Index expanded 2.7 percent from December 2011 to December 2012, matching the U.S. growth rate. Last year's economic growth was a couple of steps faster than the 2.3 and 2.2 percent growth achieved in 2010 and 2011. The Minnesota Index has increased 7.5 percent since bottoming out in August 2009. The U.S. index is up 7.9 percent after turning the corner in October 2009.

Minnesota employers continued to add workers at a robust pace in December as Wage and Salary **Employment** increased by 9,100 jobs. Job growth was broad with eight sectors increasing payroll totals. Hiring was robust in trade, transportation, and utilities and in professional and business services. The only negative job news in December was the loss of 3,500 construction jobs, the most construction jobs lost in the months since May 2010.

Minnesota's over-the-year job growth, based on unadjusted job numbers, was 1.9 percent in December, leaving annual average job growth at 1.3 percent for 2012. That 1.3 percent will be revised upward to around 1.7 percent when

job data is benchmarked in February. The 1.7 percent annual gain equals the national rate and is the strongest since 2000. The state added 35,000 jobs in 2011 and 47,000 jobs in 2012 on an annual average basis.

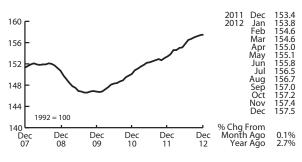
Minnesota's adjusted online Help-Wanted Ads dipped for the second month Source: The Federal Reserve Bank of Philadelphia, 2013 in a row but continued to run at a level consistent with job growth between 1.5 and 1.7 percent. The state's share of national online job advertising, as measured by the Conference Board, slipped to 2.4 percent which is still well above Minnesota's 2.0 percent share of the nation's payroll employment. Labor demand as measured by online job advertising was 14 percent higher in 2012 than in 2011 on an average annual basis. Job growth was up 30 percent last year meaning that the pace of job layoffs was considerably lower, and employers overcame the skills mismatch problem and found qualified workers.

After five months of readings way below the growth-neutral level of 50, Minnesota's **Purchasing Managers**' Index (PMI) shot up in December to 57.2. December's spike was the 13th highest monthly increase over the index's 18 years of data. The index had been signaling since August that Minnesota's economy would be slowing down during the second half of 2012 and first half of 2013. The second half slowdown didn't materialize based on the strong job growth in November and December. Minnesota's manufacturers may have hit a soft patch in recent

> months but other sectors of the state's economy are

making up for slower manufacturing activity.

December's plunge in adjusted Manufacturing Hours is further evidence that Minnesota's manufacturers have downshifted over the last few months. Factory hours declined to 40.0 hours -the shortest workweek in more than a year. Adjusted



#### Minnesota Index

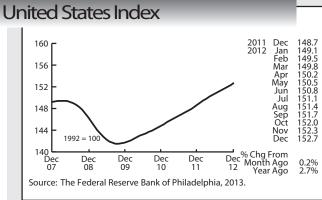
Manufacturing Earnings stumbled for the third consecutive month, slipping to \$768.67. The average factory paycheck adjusted for inflation hasn't been this skinny since June 2009. Shrinking factory paychecks are inconsistent with the perception that manufacturers are having trouble finding qualified employees. Shortages usually lead to wages going up, not down.

The Minnesota Leading Index climbed for the second straight month after having plunged from August through October. The deep drop, like the PMI decline, may have just been reflecting a pullback in Minnesota's manufacturing sector. Much of the decline may disappear when the index is revised to include benchmarked employment figures. Minnesota's economy looks to be headed for six more months of economic growth during the first half of 2013 based on the uptick in the leading index.

Adjusted Residential Building **Permits** reversed direction in December rising to 1,742, the highest total in over six years. A large share of the building permits was for apartments. Minnesota accounted for 1.6 percent of the U.S. single-unit permits and 4.2 percent of nationwide apartment permits.

After drifting upward over the previous three months, adjusted Initial **Claims for Unemployment Benefits** (UB) tailed off in December. Total initial claims for 2012 were the lowest since 2007 and the third lowest since the start of the new century.

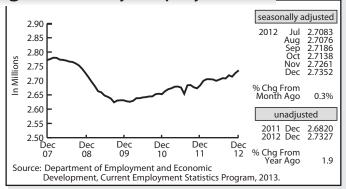
by Dave Senf



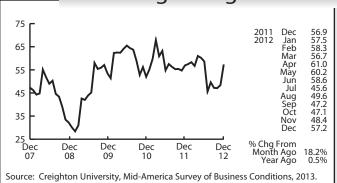
Note: All data except for Minnesota's PMI have been seasonally adjusted. See the feature article in the Minnesota Employment Review, May 2010, for more information on the Minnesota Index.

## Minnesota Economic Indicators

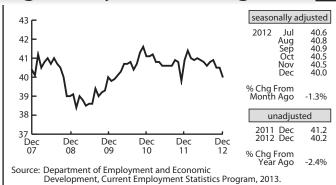
#### Wage and Salary Employment



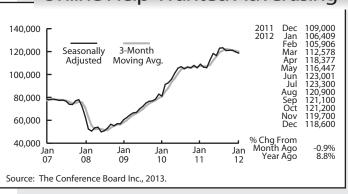
#### Purchasing Managers' Index



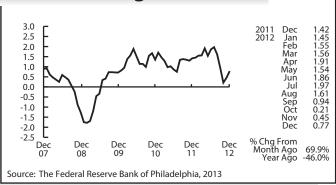
#### Average Weekly Manufacturing Hours



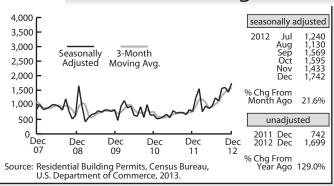
#### Online Help-Wanted Advertising



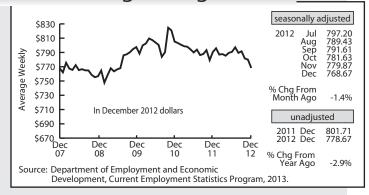
#### Minnesota Leading Index



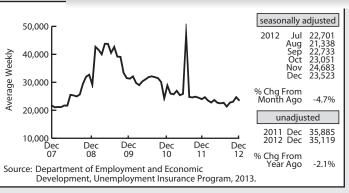
#### Residential Building Permits



#### **Manufacturing Earnings**



#### **Initial UB Claimants**







#### **Labor Market Information Office**

1st National Bank Building 332 Minnesota Street, Suite E200 St. Paul, MN 55101-1351 651.259.7400 (voice) 1.888.234.1114 (toll free) 651.296.3900 (TTY) 1.800.657.3973 (TTY toll free) e-mail: DEED.lmi@state.mn.us Internet: www.PositivelyMinnesota.com/lmi/

**Labor Market Information** Help Line:

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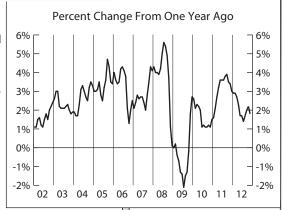
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#### U.S. Consumer Price Index

#### for All Urban Consumers (CPI-U)

On a seasonally adjusted basis the December CPI-U for all items was unchanged over the month. The index increased 1.7 percent from December 2011, not seasonally adjusted. Despite the overall lack of change, the index for Energy decreased 1.2 percent over the month, much less than last month's 4.1 percent decline, but the 12-month change is still an increase of 0.5 percent. Food increased 0.2 percent over

the month, consistent with the last several months and contributing to an over-the-year 1.8 percent increase. The index for All Items less Food and Energy was up 0.1 percent over the month, in line with the last several months of increases of 0.1 or 0.2 percent, and up 1.9 percent over the year.



For more information on the U.S. CPI or the semi-annual Minneapolis-St. Paul CPI, call: 651.259.7384 or toll free 1.888.234.1114.

The employment and unemployment data in this publication were produced in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor. © 2013 by the Department of Employment and Economic Development, Labor Market Information Office

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#### Disability employment

DEED's Disability Employment Task Force continues to identify and develop strategies that go 'beyond compliance' in serving job seekers with disabilities. Three work groups are reviewing WorkForce Center accessibility, staff training and internship/work experience opportunities at DEED. The work groups will reconvene in the spring to share progress and develop action plans.

Check the Governor's Workforce Development Council for their recommendations:

www.gwdc.org/policy/disability employment.html



# Seasonal Adjustment and Weather Extremes

**T** xtreme weather events seem to be happening with increasing frequency and intensity. Hurricanes, 'snownami', and devastating tornadoes are all accompanied by an avalanche of media coverage. After the live weathercasts, scenes of devastation, and human interest stories, it's time for the coverage of economic implications. As the most recent such event, Hurricane Sandy, is credited with unusually high unemployment insurance claims, weak employment numbers, and poor holiday retail sales, it shines a spotlight on the fundamental problem of statistics: Although we can count the number of jobs, the number of workers employed and unemployed, and can even count the goods and services output, we have a lot more difficulty quantifying why and how. Why did employment in an industry grow for the year? Why did retail sales and hiring not keep up with expectations? How much impact does a disaster in our population centers have in surrounding regions, the nation, and the world?

To inform analysis, researchers and government agencies use a variety of methods to estimate the impact of economic events. Using multiple data sets is a common way of ensuring the significance of the occurrence; there should be noticeable effects in different measures for truly large-scale events. Comparing to similar known historical events, another tactic, helps to identify what we expect and to evaluate its scale. Another technique, and the focus of this article, is seasonal adjustment. While not specifically for analysis of major events, seasonal adjustment is invaluable for distinguishing the 'normal' from the 'abnormal' in economic trends.

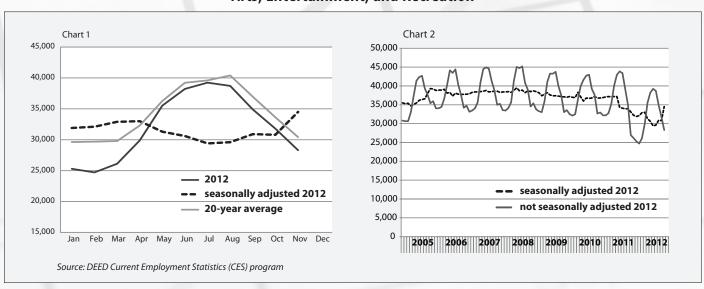
Seasonal adjustment is a statistical method applied to time-series data that removes the usual fluctuations to leave only the trend. BLS FAQs (www.bls.gov/dolfaq/bls\_ques25.htm) defines it as follows:

Seasonal adjustment is a statistical technique which eliminates the influences of weather, holidays, the opening and closing of schools, and other recurring seasonal events from economic time series. This permits easier observation and analysis of cyclical, trend, and other nonseasonal movements in the data. By eliminating seasonal fluctuations, the series becomes smoother and it is easier to compare data from month to month.

For example, if school hiring usually increases employment in September, the seasonally adjusted series would discount that usual increase and show only how much more or less employment has grown. In a year where schools were cutting back and hiring fewer workers in September, the seasonally adjusted series would show a decline, despite the measured number of workers being higher over the month.

In Chart 1 seasonally adjusted data is plotted concurrently so the seasonal trend is apparent. While the level varies, the timing and magnitude of increases and decreases is largely consistent. The most recent seasonally adjusted series is included. During mid-2012 Arts, Entertainment, and Recreation employment grew rapidly. However, the industry always grows over the summer months, and because the growth was less substantial than usual, the seasonally adjusted series shows a decline in

#### Arts, Entertainment, and Recreation



employment. In Chart 2 the time-series of seasonally adjusted and unadjusted data are shown together. While the seasonality of the unadjusted data is apparent, it swings so wildly over the course of the year that it makes it difficult to see the trend. The seasonally adjusted series, in contrast, removes those wild swings to show a trend that reflects recession-related and other economic events.

Seasonal adjustment doesn't assume all people work year-round. It doesn't even have much to do with weather — it's simply a method to separate the *usual* from the *true* economic trends so researchers and the public can better understand the economy of the present. Monthly employment numbers and unemployment rates are all released in both adjusted and unadjusted forms. The Consumer Price Index (CPI) and other common economic indicators are similarly published. Despite the widespread nature of the technique, it often sows confusion.

While Minnesota was not directly affected by Hurricane Sandy, we have experienced smaller scale weather events that have had an impact on our employment trends. Seasonal adjustment can help take our understanding of these adverse events beyond the anecdotal to the systematic.

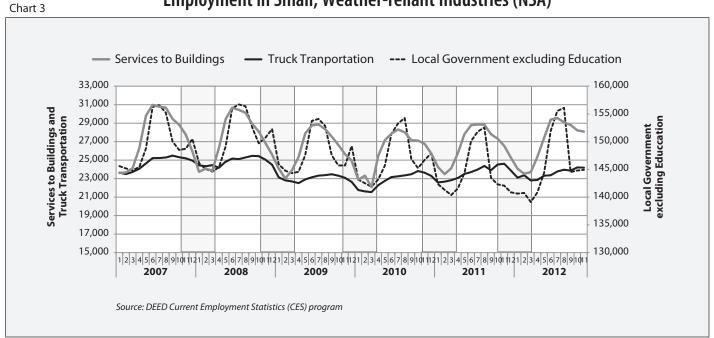
For example, the 2011-12 winter was warm and nearly snowless. While salt-suppliers were pounded as roads needed little clearing, home improvement retailers and construction workers all started their seasons early. When they're celebrating St. Patrick's Day in t-shirts and by scooting around in golf carts, few people are worried about how much of the local economy depends on cold, snowy winters. Trucking firms, building maintenance, and city governments have to stockpile sand and salt in the fall to prepare for winter. If they guess quantities too low, and many did in 2010-11, they can run into late winter shortages and price spikes. In a warm and dry winter, when they buy too much, not only do they

have the unrecoverable expense of excess sand and salt and potentially removal fees at the end of the winter if they have no long-term storage in the city, but workers whose winter paychecks are affected by weather are at risk. The truck drivers who deliver sand and salt, the plow drivers, and the snow-melt machine operators are all at risk of layoff. Their corollary summertime duties aren't yet needed, and employers are looking to make up the losses from overbuying materials.

Because current employment numbers are available only by industry, we can't look at employment for just these occupations, but we can look at the industries in which most work. The most precise such industries are too small to be seasonally adjusted, but show an apparent weather effect. Services to Buildings declined somewhat less than usual in 2010-11 and more and for a longer time in 2011-12. Local government employment didn't see any of the second January peak that appears in all other years. Truck transportation dropped off comparatively little in 2010-11 but fairly rapidly in 2011-12. This includes all workers who received pay in the reference week, the week which includes the 12th of the month. It doesn't account for changes in hours or total pay, which may disguise some of the effect. For the industries that are large enough to be seasonally adjusted, the impact is further diminished.

Chart 3 is a comparison of adjusted and unadjusted data for the three major industries that include sand and salt wholesalers and delivery, facilities maintenance workers, and city government workers who operate plows. Keep in mind that these are all large industries — only about 75 percent of Transportation and Warehousing employment is truck transportation and warehouses, and a large portion of that likely is shipping related to retail sales. Half of local government employment is in education and wouldn't be affected by trends in city services. Only 20 percent of Administrative, Support, and Waste services employment

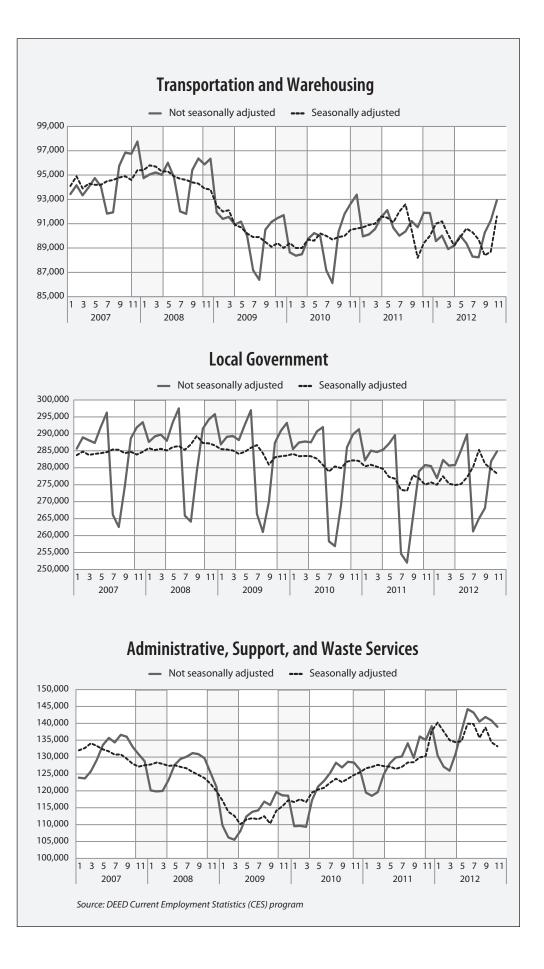
#### **Employment in Small, Weather-reliant Industries (NSA)**



works in building maintenance. Even so, the seasonal adjustment of the larger industries can still be meaningful. In the winter of 2008-09 all of these industries declined on a seasonally adjusted basis, despite fairly normal weather conditions. Since that was during the recession when all industries were struggling, those declines were likely a result of the larger economic picture. However, in other average winters, seasonally adjusted employment figures were mostly level, indicating employment change that was as expected.

In winter 2010-11 Transportation and Warehousing saw steady increases in seasonally adjusted employment. Some is a product of ongoing economic growth, but the post-holiday drop-off in employment was less substantial than in other years. In 2011-12 employers hired many fewer workers in advance of the holidays, but laid them off at a normal rate, resulting in an overthe-year decrease. The seasonally adjusted series may be skewed by the timing of the benchmark revision and isn't easily explained. Local government employment in 2010-11 was weak, possibly because existing workers were offered overtime rather than new workers being hired. Budget gaps were made up in the following season, as local government employment declined more rapidly in the summer months than even during the recession, although this effect was compounded by ongoing budget troubles. Administrative, Support, and Waste Services was stronger than average throughout the 2010-11 winter, while 2011-12 appears to have stronger-than-normal hiring in anticipation of the winter but a rapid drop-off as workers lost their jobs at a faster-than-average seasonal rate. Analysis of seasonal adjustment may be more helpful after another annual benchmarking period. When they become available, more granular data sources like the Quarterly Census of Employment and Wages for changes both in employment and pay can be examined and would be another effective technique for understanding the economic effects of recent winters.

Abnormal weather isn't the only source of economic trends. Large events like the state government



shutdown in July 2011 or the 2008 Republican National Convention may appear in the seasonally adjusted series as dips and increases of various sizes. Few events, however, are truly significant enough to appear. Often other irregular events balance them out with near comparable losses or gains. This is what makes seasonal adjustment such a useful tool — it reflects the overall trend without being substantially swayed by every minor variation.

The basic method, though, has some limitations. First, seasonal adjustment requires several years' worth of historical data to establish the trend, and the history should be as granular as the current series — where there are only annual averages or totals available historically, you cannot build a model of monthly seasonality. Second is the underlying series itself. Current monthly employment and unemployment rates, the measures that provide the most current state-level employment numbers, are estimates based on both survey data and outside inputs. To improve accuracy, outside inputs and projected values are updated and estimates are recalculated annually. As a result, the current (last one to three years) series is significantly more volatile than previous years, meaning the seasonal adjustment is similarly volatile (see charts for apparent volatility). Third, to adapt to changing trends most seasonal adjustment processes give more weight to recent years. In abnormal times, this can skew the output. This is doubly troublesome because we often adjust modeled series since all include some kind of preliminary/ predicted data that will be revised later. Those predicted inputs are based on past values as well, with a similar emphasis on recent years. This compounds the error in the prediction and makes re-estimation particularly critical. Fourth, seasonal adjustment is most meaningful when applied to large groups – large industries or geographic areas. Often, the most significant economic effects of an event are isolated to a much smaller corner of the economy.

The economy is a complex system with each occurrence rippling out to unpredictable end results. Although we have many analytical tools, understanding their implementation, their limitations, and their advantages is critical to understanding conclusions drawn from their use. Seasonal adjustment is one such tool. To interpret seasonally adjusted measures correctly, it's critical to have an understanding of the bigger picture.

by Amanda Rohrer Labor Market Information Office Minnesota Department of Employment and Economic Development



Photo by Judy Parker





oto by Carl Durocher

'This topic is reviewed each re-estimation period. For an article on last year's benchmark changes, see: www.PositivelyMinnesota.com/Data\_Publications/Employment\_Review\_Magazine/February\_2012\_Edition/2011\_Benchmark\_Revisions\_Their\_Effects\_on\_Two\_Programs.aspx

