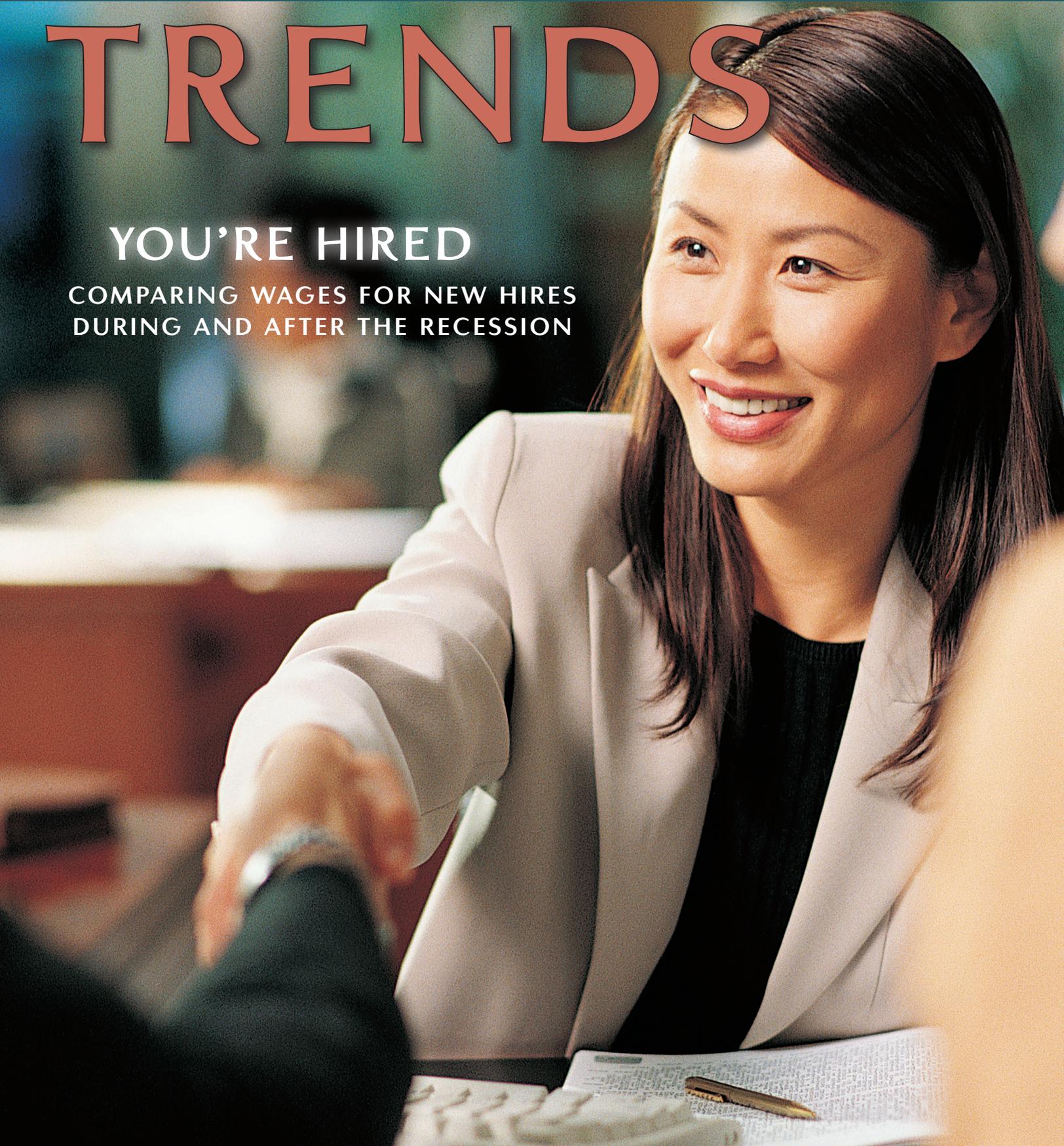


MINNESOTA ECONOMIC

TRENDS

YOU'RE HIRED

COMPARING WAGES FOR NEW HIRES
DURING AND AFTER THE RECESSION



MARCH 2015

Minnesota
Department of Employment and Economic Development



A Look at Wages

We've been hearing a lot lately about wages. By almost every measure, the U.S. job market has steadily improved since the recession ended nearly six years ago. Wages, though, have been the one exception, barely keeping up with inflation. Economists have struggled to explain why.

Mustapha Hammida explores wages from a slightly different angle in this issue of Trends. He looked at how wages for Minnesotans who left their jobs and found new jobs *during* the recession compare with the wages of people who left jobs and found new work *after* the recession.

Based on his research, post-recession workers had a better chance than workers during the recession of seeing gains in hourly wages when they moved to new jobs. That was especially true for low-wage workers. People who left low-paying jobs after the recession had a better than 85 percent chance of earning at least equal wages in their new jobs. For people in high-paying jobs, the odds of finding comparable wages after the recession were considerably lower at 55 percent.

The study examined a fairly narrow time frame. As more data become available, Hammida will revisit the topic to see if people who were out of work for longer periods during and after the recession had similar wage outcomes.

His story isn't the only one that touches on wages in this issue. John Clay looked at DEED's new Cost of Living tool and how it can help business owners decide how much to pay employees and help workers decide whether their pay is enough to meet basic living expenses. Our intern, Kaite DeMartelaere, examined barriers that low-wage workers face in finding and keeping employment.

Ellen Bendewald looked at a feature on DEED's MinnesotaWorks.net job bank that enables employers to designate job openings as "military-friendly." Finally, Dave Senf wrote about some of the gaps in data that make it difficult to grasp the size of the freelance or "solopreneur" economy in Minnesota.

A handwritten signature in black ink that reads "Monte Hanson".

Monte Hanson
Editor

Table of

CONTENTS



Wages During and After the Recession 2
Mustapha Hammida



Military-Friendly Jobs9
Ellen Bendewald



Matching Pay with the Cost of Living . 15
John Clay



Barriers to Getting Ahead 18
Kaite DeMartelaere

In Search of the Independent
Contractor22
Dave Senf

Wages During and After the Recession

Minnesotans who lost or quit jobs during the recession generally landed new jobs that paid less. After the recession, however, wage outcomes improved.



The Great Recession and ensuing recovery caused significant fluctuations in Minnesota's labor market. Minnesota's seasonally adjusted unemployment rate climbed from 4.8 percent in December 2007 to 8.3 percent in June 2009 and has since leveled off at 3.7 percent in February

2015. Minnesota lost 149,600 jobs during the recession and has since gained them all back, surpassing the pre-recession peak by more than 57,800 jobs as of February 2015.

These fluctuations in the labor market have heightened interest in job quality. Did the labor

market become more polarized during the recession and not fully recover since, as recent Federal Reserve Bank research suggests?¹ If so, are workers who lose or quit a job able to find another job with equivalent wages? This article addresses the question of wage outcomes resulting from both voluntary

and involuntary job mobility in Minnesota. Another way to frame the question is what types of jobs are being destroyed and created as people move from one job to another?

To answer these questions, we will assess whether the distributions of hourly wages of jobs lost and jobs created changed between two periods, the Great Recession and the recovery. The goal of this research is to improve our understanding of the relationship between job mobility and job quality as measured by hourly wages of these jobs in Minnesota.

Improving Job Mobility Levels

The study group for this research is Minnesota workers with a job separation and new job within a three-quarter time frame in two time periods (see methodology section for more details). The two time periods are the Great Recession period spanning third quarter 2008 to second quarter 2009 and the recovery period spanning third quarter 2012 to second quarter 2013.

Table 1 summarizes the study groups, comparing the number with a separation job and the number with a new job across the two time periods. As expected, the number of workers

Methodology

Data

We use data from the quarterly Unemployment Insurance Wage Records (UIWR). These data represent a census of all jobs covered under the Minnesota Unemployment Insurance Program, although self-employment, independent contractors and federal government jobs are excluded. The UIWR contain quarterly wages paid and hours worked during the quarter for each job, which allows for tracking jobs and hourly wages over time.

Job Mobility Defined

Economists commonly define job mobility as a change of employer, regardless of the reason for the move. Job mobility may occur as a worker pursues career advancement and better wages or as a result of a layoff, quit or firing, which may lead to wage gains or losses depending on the quality of the next job.

In the same spirit, we define job mobility as a transition between two employers experienced by a worker during a specific time period where the first event captures a job separation and the second event captures a job hire. This means that our study population includes all workers who experience an employer-to-employer transition regardless of the reason of the initial job separation. New entries into the workforce or exits where individuals don't get a new job within the specified time period don't figure into our analysis population.

The study isolates quarterly cohorts of employees who lost jobs and found new jobs within three quarters starting at the quarter of their job loss. Results are summarized over four quarters to give a quarterly average over a calendar year. Two four-quarter periods are considered, each depicting a section of the business cycle. The first one spans third quarter 2008 to second quarter 2009 (covering the period leading to the trough of the Great Recession), while the second one spans third quarter 2012 to second quarter 2013 (covering the recovery period through the most recent UIWR available).

Job Quality Defined

For the purposes of this study, the quality of a job is measured by the hourly wage it pays.

with a separation job during an average quarter decreased during the recovery. In addition, the number of workers who found a job after separation increased during the recovery. Overall, within three quarters of a job loss, an average worker during

the Great Recession had around a 50 percent chance of finding another job, while an average worker during the recovery had close to a 60 percent chance of finding another job.

Improving Job Mobility Wage Outcomes

How do the wages of new jobs compare to those of separation jobs? During the recession, an average worker who lost a job found a lower-paying job (see Chart 1). Breaking this out by percentile, except for the lowest (10th) percentile, all four higher wage percentiles declined. For instance, half of the new jobs paid \$12.93 or less per hour, while half of the separation jobs paid \$13.23 or less per hour. Moving to the top sections of the wage distributions, the 75th percentile hourly wage was \$20.05 compared to \$20.70 for separation jobs.

Although the wage percentiles of new jobs overall were lower than comparable wage percentiles of separation jobs, it was at the higher hourly wages of the distribution that they fell



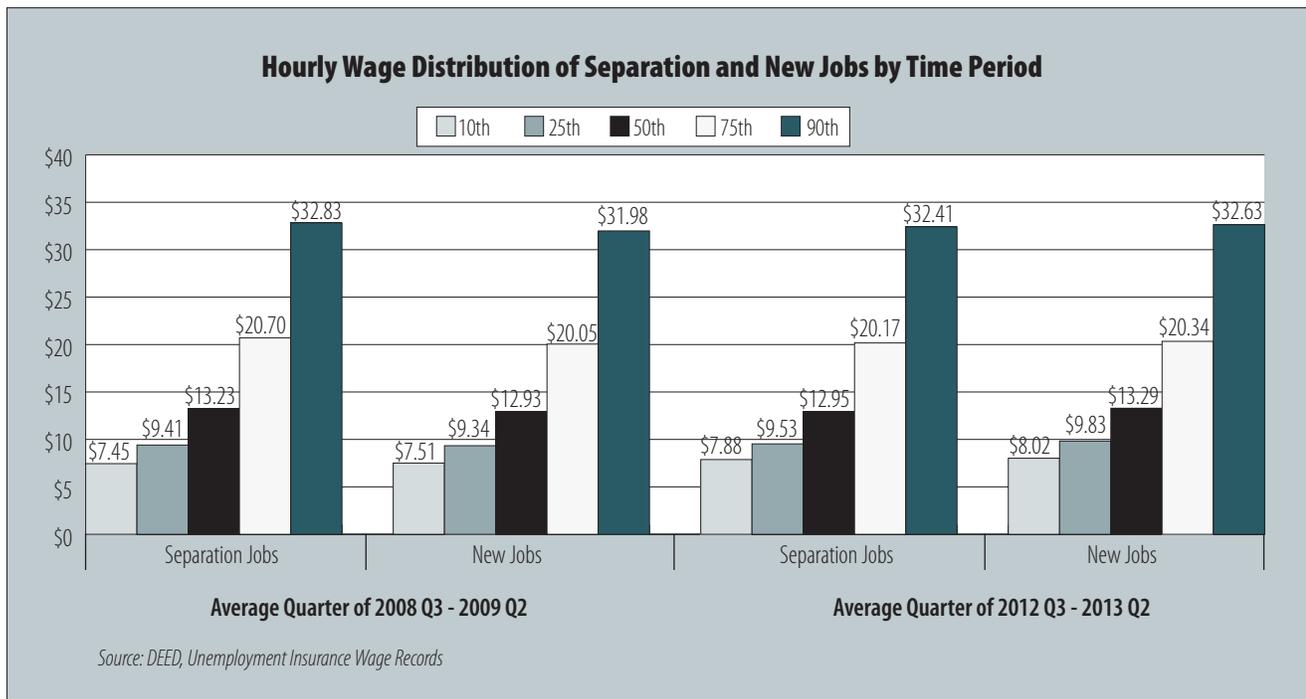
TABLE 1

Distribution of Workers with a Separation Job by Worker Type and Time Period

Type of Worker	Average Quarter of 2008 Q3 - 2009 Q2 (Recession Period)		Average Quarter of 2012 Q3 - 2013 Q2 (Recovery Period)	
	Total	Percent	Total	Percent
Workers with a Separation Job	221,444	100.0	216,533	100.0
Workers with a New Job	113,537	51.3	126,890	58.6
Workers without a New Job after Two Quarters	107,908	48.7	89,644	41.4

Source: DEED, Unemployment Insurance Wage Records

CHART 1



furthest behind. These results indicate that, during the recession, the rate of decline in wages of new jobs relative to separation jobs was only 0.7 percent at the 25th percentile, but 2.3 percent at the 50th percentile and 3.2 percent at the 75th percentile.

Now, consider the relationship between job mobility and wages during the recovery (see right half of Chart 1). A strikingly different picture emerges here. In all five percentiles, wages for new jobs were higher than wages for separation jobs. For example, the median hourly wage of new jobs was \$13.29, while the median hourly wage of separation jobs was \$12.95. This means that during the recovery period, in

general, workers who lost jobs were able to find new jobs at higher wages.

Moreover, wage improvements were stronger at the lower half of the wage distribution of new jobs than at the top half during the recovery. Wages of new jobs relative to separation jobs were 3.1 percent higher at the 25th percentile, 2.6 percent higher at the 50th percentile, and only 0.9 percent higher at the 75th percentile during the recovery. To put this in perspective, however, in dollars and cents terms, wages improved between 14 and 34 cents across the distribution, and it was the middle of the distribution that saw the bigger increases.

More Workers Benefit from Job Mobility

This section looks at the effect of job mobility on wages and how it differs between the Great Recession and the recovery. Comparing the wages of separation and new jobs for each worker, the analysis disaggregates the pool of workers with job-to-job transitions into three groups: those with hourly wage losses, those with relatively similar wages and those with hourly wage gains.

Chart 2 shows that during the Great Recession about 37 percent of workers experienced no changes in their hourly wages as a result of job mobility. The remaining 63 percent

were almost evenly distributed among the other two groups: 32 percent experienced losses in hourly wages while 31 percent experienced gains.

As the economy recovered, the wage effect of job mobility in all three categories of workers improved. During the recovery, the share of workers with hourly wage losses was down 3 percentage points to 29 percent, the share of workers with no changes in their hourly wages was down 2 percentage points to 35 percent, and the share of workers who commanded hourly

wage gains was up 6 percentage points to 37 percent.

Job Mobility Benefits Differ by Job Quality

Have the effects of job mobility on wages improved across all types of jobs? To tackle this question, this analysis breaks jobs into three categories: low-paying, under \$10 an hour; medium-paying, between \$10 and \$19.99; and high-paying, \$20 or more.

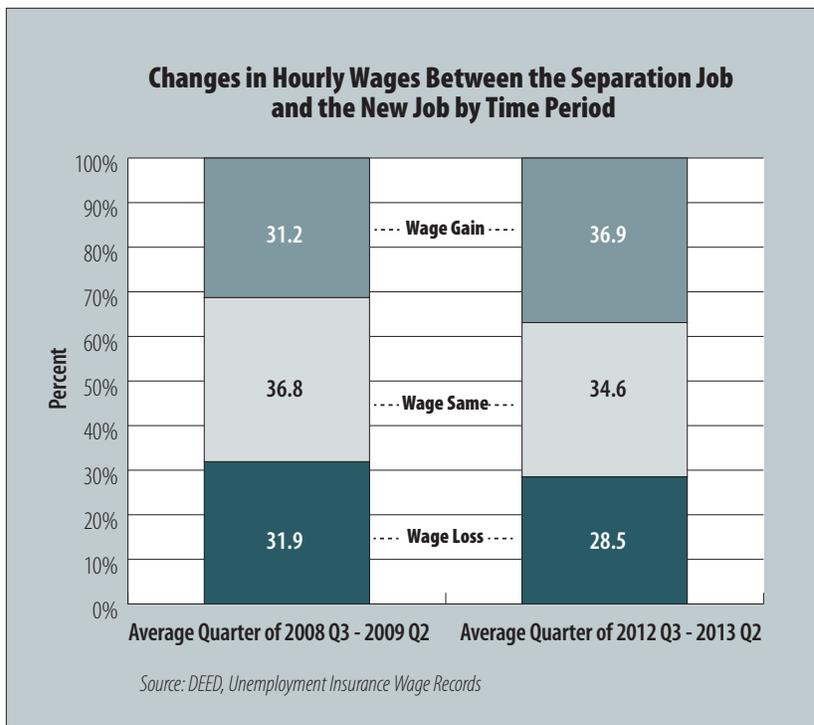
Three effects are apparent in Chart 3. First, the higher the hourly wage of the separation

job, the higher the chances of experiencing a wage cut in the hire job. During the Great Recession, an average worker separating from a high-paying job had a 45 percent chance of taking a loss in hourly wages after reemployment. In contrast, the chance of a wage cut was 37 percent and 12 percent for average workers separating from a medium-paying job and from a low-paying job, respectively.

Second, the higher the hourly wages of the separation job, the lower the chances of returning to a new job that pays close to the same hourly wage. During the Great Recession, an average worker separating from a low-paying job had a 45 percent chance of returning to another low-paying job with no changes in hourly wages. The changes for medium- and high-paying job holders were 36 percent and 28 percent, respectively.

Third, the proportion of workers whose wages increased due to job mobility is more pronounced at the low-paying jobs category than in the medium- or high-paying jobs categories. An average worker separating from a low-paying job had a 43 percent chance of securing a new job with higher hourly wages during the Great Recession. Workers who separated from medium-

CHART 2



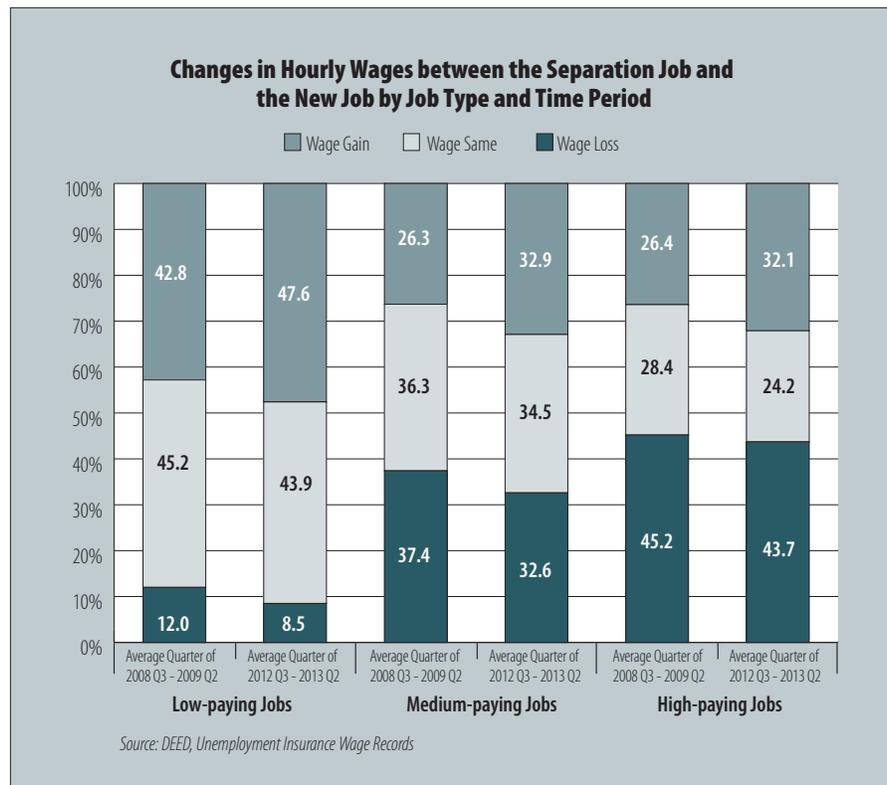
or high-paying jobs, however, had only a 26 percent chance of moving into a new job that offered wage gains during the Great Recession.

The same pattern applies to the recovery period but with significant improvements in all three types of jobs. As workers transitioned from job to job during the recovery period, the proportion of workers with no change or losses in hourly wages declined from the recessionary period and the proportion of workers with gains in hourly wages rose. Moreover, the average worker separating from a high-paying job had a 32 percent chance (up 6 percent) of getting a new job paying higher hourly wages and a 44 percent chance (down 1 percent) of taking a reduction in hourly wages at the new job.

Likewise, an average worker separating from a low-paying job during the recovery period fared much better than a similar worker during the Great Recession, with a 48 percent chance (up 5 percent) of experiencing increases in hourly wages and only an 8 percent chance (down 4 percent) of experiencing a wage decrease in the new job.



CHART 3





Like the other two types of workers, an average worker separating from a medium-paying job during the recovery faced much better job opportunities than an average worker separating from a medium-paying job during the Great Recession. In fact, the average worker had a 33 percent chance (up 7 percent, the largest increase of all three worker types) of experiencing

a gain in hourly wages and a similar chance (down 5 percent, again the largest drop of all three worker types) of taking a new job with lower hourly wages.

Conclusion

This article sheds light on the relationship between job mobility and job quality and its importance in assessing the health of the Minnesota labor market. Using hourly wages as our measure of job quality, we establish that job mobility affects hourly wages differently across the business cycle. During the Great Recession, workers who experienced a job separation faced a supply of new jobs that, in general, were paying hourly wages that were slightly lower than those of separation jobs. As the economy recovered, workers had better chances of seeing gains in their hourly wages when they moved to new jobs.

Moreover, the extent of these trends varied by the quality of jobs. Workers who separated from low-paying jobs had over an 85 percent chance of not losing ground in hourly wages as a result of job mobility. In contrast, that same chance

was only about 55 percent for workers who separated from high-paying jobs. Differences aside, the recovery is lifting most workers regardless of the job type.

A word of caution is necessary regarding these results. Our findings are based on data for workers with a job-to-job transition within a three-quarter window. It is likely that workers with job transitions over a longer period than the one considered here encounter different hourly wage outcomes. Expanding the study population to include workers with job transitions over a longer period, such as the long-term unemployed, would complement our current results. We plan to complete that analysis once enough quarters of data become available. ■

¹"Middle-Skill Jobs Lost in U.S. Labor Market Polarization," Anton Cheremukhin, Economic Letter, Federal Reserve Bank of Dallas, May 2014, www.dallasfed.org/assets/documents/research/ecllett/2014/el1405.pdf.

Military-Friendly Jobs

A feature on DEED’s MinnesotaWorks.net job bank enables employers to designate job openings as ‘military-friendly.’

MinnesotaWorks.net, DEED’s no-fee online job bank, has a unique way of helping current and former military service members connect with good-fit employers: the military-friendly job posting. Employers posting their job openings on MinnesotaWorks.net have the option of designating their job “military-friendly” to encourage veterans to apply.¹

Job seekers registering on MinnesotaWorks.net are asked

whether they have served in the U.S. military. If they answer “yes,” then job postings with the military-friendly designation appear at the top of their job search results. Similarly, the resumes of veteran job seekers automatically appear at the top of employers’ resume search results.

This article is a first look at trends in military-friendly job postings. The military-friendly designation was available to

employers starting in late February 2012; the data used in this analysis come from all military-friendly and general job postings between March 2012 and December 2014. Military-friendly postings represent a small but growing share of all job postings. While holding steady at 4 to 6 percent from March 2012 through December 2013, the military-friendly share of total job postings climbed to nearly one-fifth (19 percent) by December 2014 (see Figure 1).



PHOTO: ERICA ISAACSON

FIGURE 1

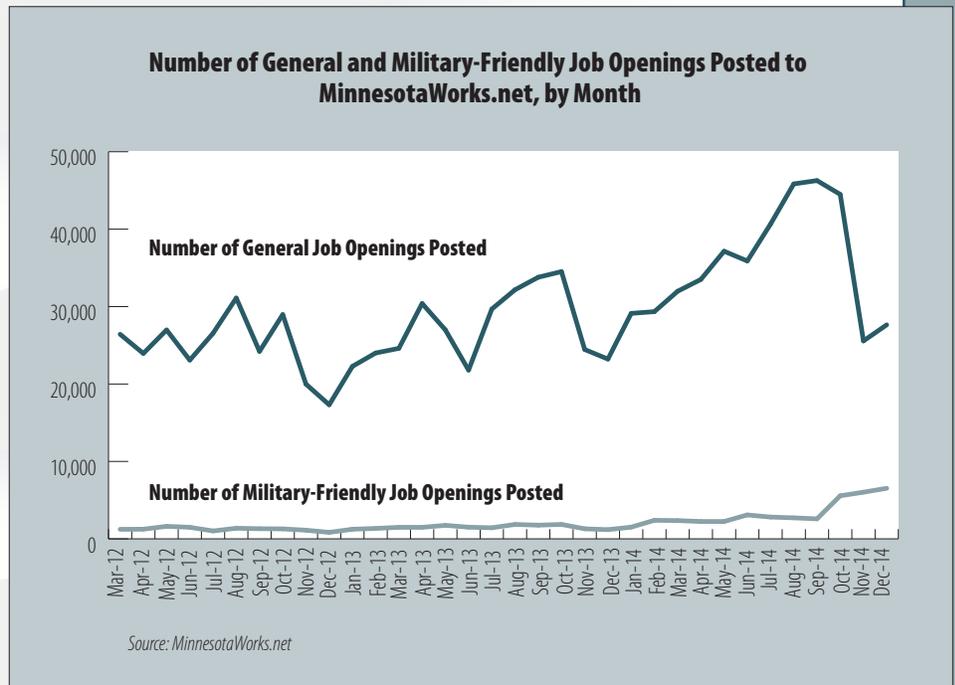
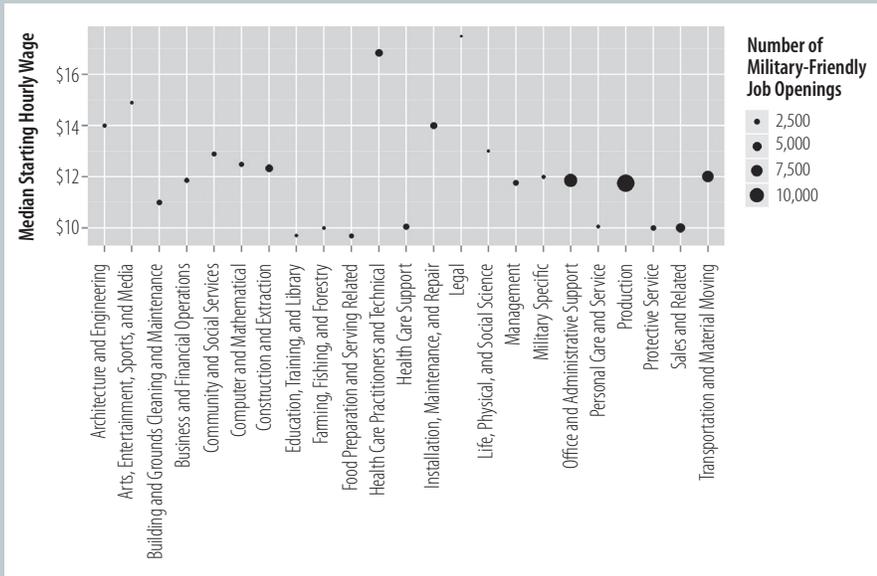




PHOTO: ADHANA TOWNSELL

FIGURE 2

Number and Median Wages of Military-Friendly Job Openings in MinnesotaWorks.net, by Occupational Group



Source: MinnesotaWorks.net

What kinds of jobs are represented by military-friendly job openings? Unsurprisingly, military-specific and protective service occupations have the highest share of military-friendly jobs (see Table 1). The most common occupations for military-friendly job openings are in production, office and administrative support, and transportation and material moving (see Figure 2, where the size of the bubble corresponds to the number of military-friendly job openings). All three of these occupational groups tend to offer a starting wage of \$12 per hour. Although they represent fewer job openings, health care practitioner and legal occupations tend to offer the highest starting wages of between \$16 and \$18 per hour.

Employers in the public administration, construction and transportation industries are most likely to post their job openings as military-friendly (see Table 2). But as with general job openings, the bulk of military-friendly job openings are with employers in the administrative support, waste management and remediation industry, which includes staffing agencies (see Figure 3). Health care and manufacturing round out the top three industries in terms of number of openings posted, with manufacturing offering the highest starting wages of the three. Overall, jobs

TABLE 1

**Occupations Associated with Military-Friendly Job Openings Posted to MinnesotaWorks.net,
March 2012 to December 2014**

Major Occupational Group of Job Opening	General Job Openings	Military-Friendly Openings	% Military-Friendly Openings	Median Starting Wage of Military-Friendly Job Openings*
Military Specific	298	1,082	78.4%	N/A
Protective Service	6,122	2,314	27.4%	\$10.00
Construction and Extraction	32,841	3,990	10.8%	\$12.34
Transportation and Material Moving	66,437	7,547	10.2%	\$12.00
Health Care Support	33,906	2,808	7.6%	\$10.05
Sales and Related	66,021	5,402	7.6%	\$10.00
Community and Social Services	20,057	1,641	7.6%	\$12.89
Health Care Practitioners and Technical	51,504	4,025	7.2%	\$16.84
Computer and Mathematical	27,118	2,098	7.2%	\$12.48
Management	33,179	2,525	7.1%	\$11.76
Farming, Fishing and Forestry	7,654	540	6.6%	\$10.00
Installation, Maintenance and Repair	49,239	3,464	6.6%	\$14.00
Business and Financial Operations	30,621	2,111	6.4%	\$11.85
Arts, Design, Entertainment, Sports and Media	7,930	539	6.4%	\$14.90
Office and Administrative Support	139,351	9,176	6.2%	\$11.85
Production	204,401	12,437	5.7%	\$11.75
Building and Grounds Cleaning and Maintenance	39,987	2,409	5.7%	\$11.00
Occupation Unknown	28,639	1,653	5.5%	\$10.50
Life, Physical and Social Science	4,919	273	5.3%	\$13.00
Architecture and Engineering	28,765	1,317	4.4%	\$14.00
Education, Training and Library	17,271	730	4.1%	\$9.71
Food Preparation and Serving Related	41,948	1,647	3.8%	\$9.70
Legal	1,020	40	3.8%	N/A
Personal Care and Service	64,712	1,038	1.6%	\$10.05

* Salary information is not required when posting a job on MinnesotaWorks.net; 29 percent of job openings are associated with a salary. N/A means fewer than 10 job postings contained this salary information.

Source: MinnesotaWorks.net

TABLE 2

**Employer Industries Associated with Military-Friendly Job Openings Posted to MinnesotaWorks.net,
March 2012 to December 2014**

Industrial Sector of Job Opening	General Job Openings	Military-Friendly Openings	% Military-Friendly Openings	Median Starting Wage of Military-Friendly Job Openings*
Public Administration	12,291	3,379	21.6%	\$15.94
Construction	15,540	3,938	20.2%	\$14.00
Transportation and Warehousing	28,438	4,445	13.5%	\$12.38
Real Estate Rental and Leasing	6,844	885	11.5%	\$9.00
Wholesale Trade	29,295	3,702	11.2%	\$12.00
Utilities	3,229	357	10.0%	\$14.50
Manufacturing	76,531	8,323	9.8%	\$12.60
Mining	1,043	103	9.0%	N/A
Management of Companies and Enterprises	11,239	1,097	8.9%	\$13.00
Retail Trade	46,559	3,512	7.0%	\$8.50
Finance and Insurance	30,231	2,099	6.5%	\$11.52
Agriculture, Forestry, Fishing and Hunting	6,991	471	6.3%	\$11.50
Health Care and Social Assistance	172,073	11,268	6.1%	\$10.00
Educational Services	16,565	1,027	5.8%	\$13.31
Professional, Scientific and Technical Services	32,191	1,819	5.3%	\$13.00
Information	12,653	695	5.2%	\$12.25
Industry Unknown	27,966	1,445	4.9%	\$14.90
Administrative Support, Waste Management, Remediation	392,747	19,654	4.8%	\$11.25
Accommodation and Food Services	32,254	1,398	4.2%	\$9.50
Other Services (except Public Administration)	38,346	993	2.5%	\$12.00
Arts, Entertainment and Recreation	10,909	194	1.7%	\$14.00

* Salary information is not required when posting a job on MinnesotaWorks.net; 29 percent of job openings are associated with a salary. N/A means fewer than 10 job postings contained this salary information.

Source: MinnesotaWorks.net

in the public administration industry tend to offer the highest starting wages, followed by the utilities, construction and arts, entertainment and recreation industries.

The public administration industry is unique as well because the Minnesota Veterans Preference Act gives veterans a limited preference over non-veterans in hiring and promotion for most Minnesota public employment positions. This preference holds true at all levels of public employment, from school districts to counties to state. No other industry has a similar dictate. As these data make clear, though, many other employers wish to recruit veterans to fill their vacancies.

Where are military-friendly jobs located? Hennepin County stands out in Figure 4 for having the most military-friendly job openings of any county, with St. Louis County and the wider Twin Cities metro region also providing significant numbers of openings. This is unsurprising given overall employment levels in these counties.

Figure 5 shows a more patchwork pattern of military-friendly job openings as a share of the total job openings on MinnesotaWorks.net. Here, Goodhue, Houston,

FIGURE 3

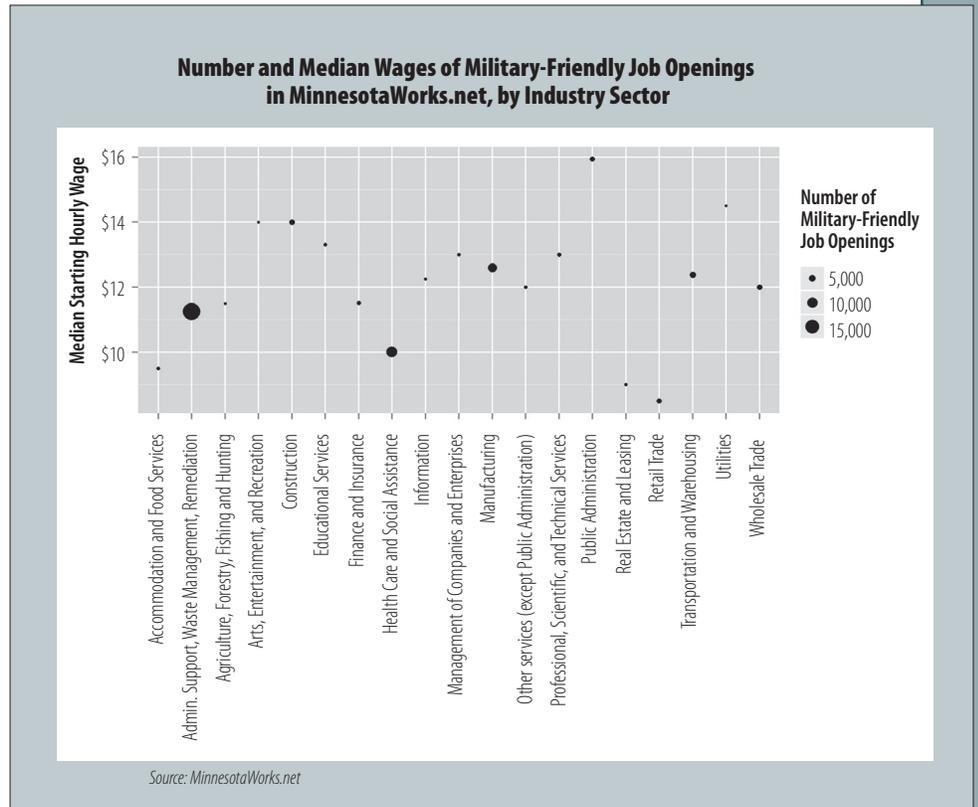


PHOTO: KAP KIM

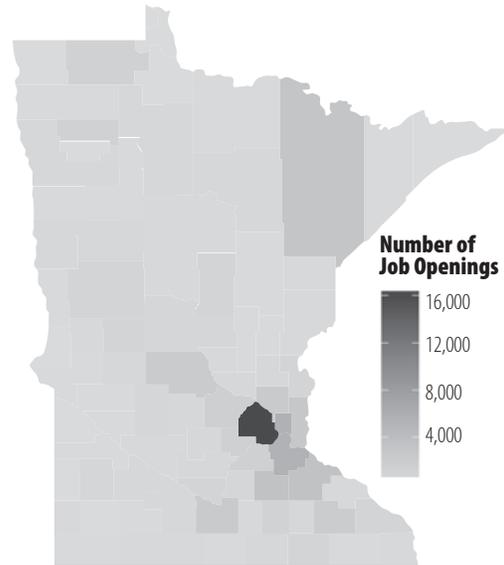
Pennington and Watonwan counties all stand out as having relatively high shares (over 20 percent) of military-friendly job openings. Taken together, these four counties do not have a significantly different mix of occupations or industries from the state as a whole. Rather, at the county level, one or two large employers using the military-friendly designation can have an outsized effect in a small pool of jobs.

Although we don't have data on the important question of how many military-friendly job postings result in the successful hiring of a veteran job seeker, or even whether more resumes and applications are solicited from veteran job seekers, the data do suggest that more and more employers are making use of this recruiting tool. ¹

¹Job postings on MinnesotaWorks.net are either entered directly by a Minnesota employer or are provided by the national job bank US.Jobs. Only jobs posted directly by a Minnesota employer have the option for the military-friendly designation, so they are the focus of this article.

FIGURE 4

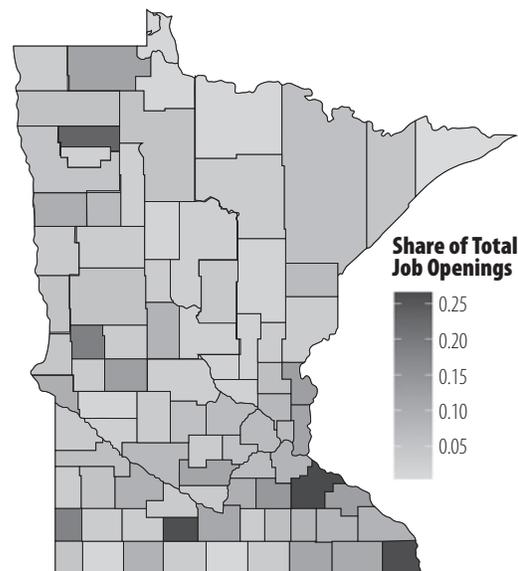
Number and Median Wages of Military-Friendly Job Openings in MinnesotaWorks.net, by Industry Sector



Source: MinnesotaWorks.net

FIGURE 5

Total Military-Friendly Job Openings as Share of Total on MinnesotaWorks.net, by County



Source: MinnesotaWorks.net

Matching Pay with the Cost of Living



DEED's new Cost of Living tool can help employers decide how much to pay and workers determine whether their pay is enough to meet basic living expenses.

Minnesota, like other states, tracks wages to help paint a picture of the state economy. The median wage paid to employees in all occupations across the state is \$18.15 per hour, according to first quarter 2014 data from the Occupational Employment Statistics survey. Half of all working Minnesotans are paid more and half are paid less. Nice to know. But how much money is \$18.15? From a working person's perspective, is it enough to live on? And from an employer's perspective, is it enough to recruit and retain employees? Thanks to Minnesota's Cost of Living Study, we have a new tool to help us find answers.

The Cost of Living Study, available as an online tool at <http://mn.gov/deed/col/>, estimates basic living costs by county, region and statewide in seven categories: food, housing, health care, transportation, child care, other necessities and net taxes. Total costs are presented as

yearly and hourly dollar amounts. The cost of living represents neither poverty nor a middle-class living but rather a living that meets basic needs for health and safety.

Although many factors contribute to a job's desirability, employers say demand-side conditions, including unsatisfactory wages, contribute to hiring difficulties in the production, industrial engineering, information technology and nursing occupations (see "Are Skilled Workers Scarce?" Minnesota Employment Review, June 2013).

In higher-wage occupations, where wages exceed the cost of basic needs, satisfaction is likely a response to whether wages are competitive within the occupation and industry. In lower-wage occupations, a more basic calculus may be involved for retention as well as hiring: Does the wage meet basic needs?

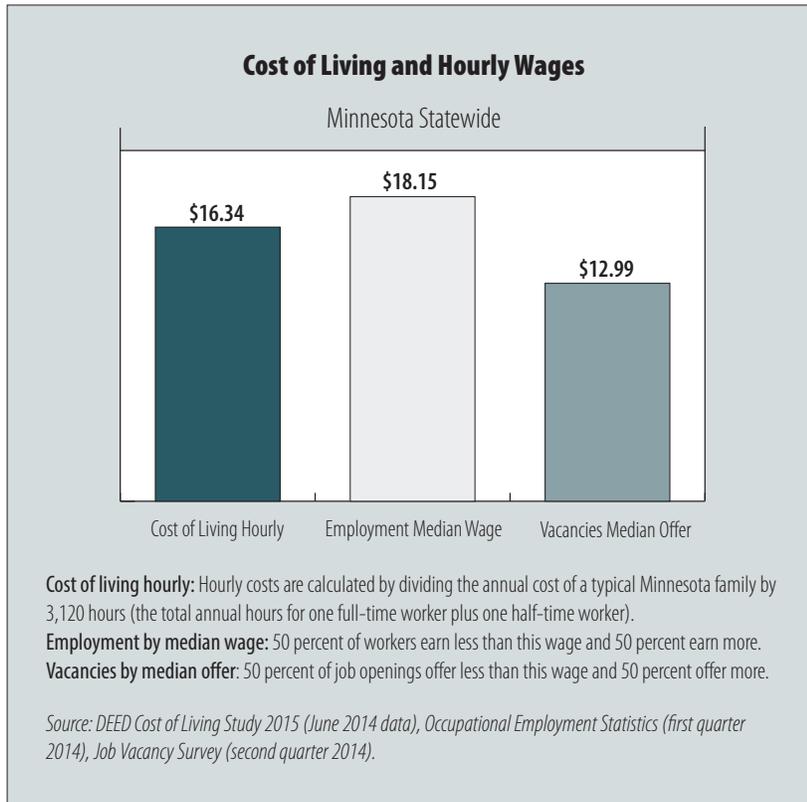
We'll take a broad look by comparing the cost of living to the median wage paid across all occupations and the median wage offer for job vacancies in Minnesota.

Comparing the Cost of Living and Hourly Wages

Looking at the state as a whole, a typical family of two adults and one child, with one adult working full time and one part time, for a combined 60 work hours per week, needs to earn an estimated family income of \$50,988 per year and \$16.34 per hour per worker to maintain a basic living, according to DEED's Cost of Living tool, using June 2014 data (see Figure 1).

The \$18.15 median wage is 111 percent of the \$16.34 cost of living, meaning that a little over half of all working Minnesotans are paid more than the family-of-three cost of basic needs.

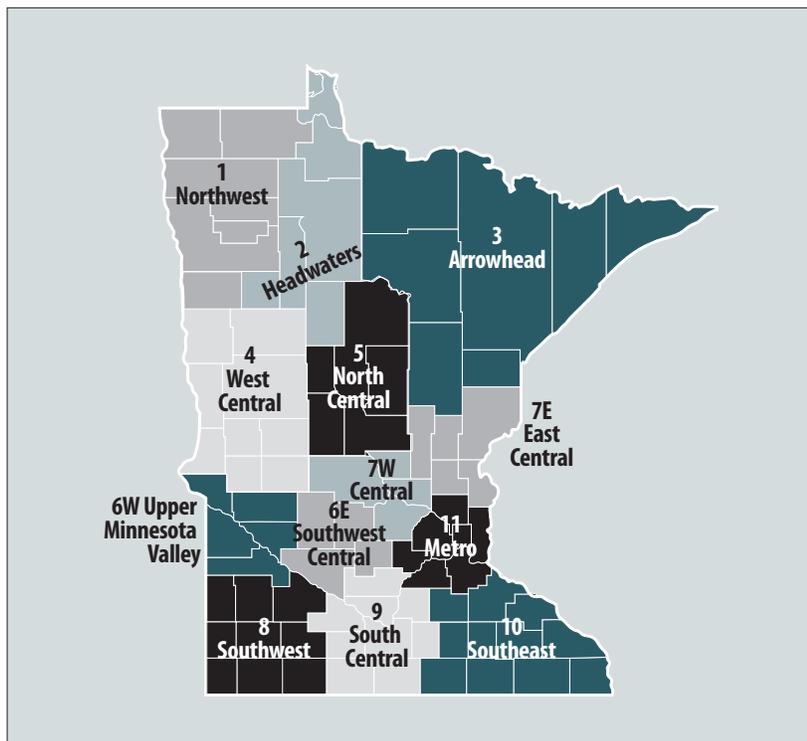
FIGURE 1



If the labor market were in perfect balance — that is, everyone matched with the right jobs so that the half paid more than the median wage were the larger families and the half paid less were the smaller families — then a median wage equal to the cost of living would be enough to ensure the economy was meeting most people’s basic needs. But economists know that no market is ever perfectly balanced.

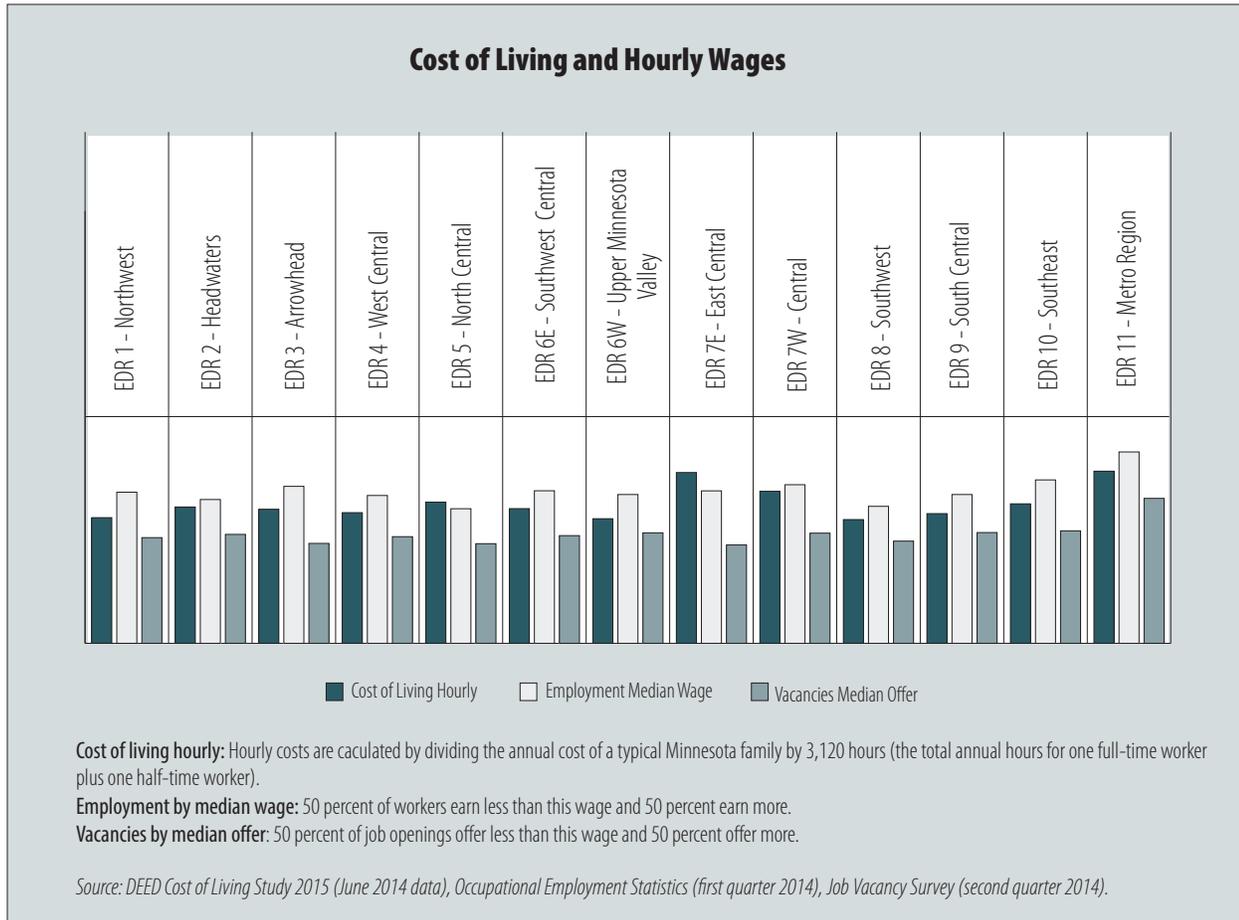
Median Wage

In the real world, we look for a median wage that exceeds — by how much we can’t say — the cost of living. The statewide median wage meets the test. And so do 11 of Minnesota’s 13 economic development regions (see map).



The regions whose median wage is highest as a percentage of the cost of living are the Northwest at 120 percent, Upper Minnesota Valley at 119 percent, Arrowhead and Southeast at 117 percent, South Central at 115 percent, and West Central and Southwest Central at 113 percent. The Southwest and Metro match the state at 111 percent. Headwaters at 105 percent and Central at 104 percent lag behind the state figure while still slightly exceeding the cost of living. The North Central region at 95 percent and East Central at 89 percent both fall below the cost of living.

FIGURE 2



Vacancy Median Wage Offer

Looking at three years of Job Vacancy Survey data averaged together, ending with second quarter 2014 data, none of Minnesota's 13 economic development regions shows a median wage offer for vacancies that meets the cost of living (see Figure 2).

The numbers range from the Upper Minnesota Valley at 89 percent of the region's cost of living to East Central at

58 percent. The Northwest, Headwaters, West Central, Southwest Central, Upper Minnesota Valley, Southwest, South Central, Southeast and Metro all have job vacancy median wage offers above the statewide 79 percent of the cost of living. The Arrowhead, North Central, East Central and Central regions fall below the statewide share. But all fall below the cost of living for their own region.

Although median wage offers historically track lower

than median wages for filled positions—perhaps because lower-wage jobs have higher turnover and might be captured more easily by the Job Vacancy Survey—a regional median wage offer below the regional cost of living may signal recruitment or retention challenges ahead.

The converse also is true: Median wages and wage offers that exceed the cost of living can signal a sustainable labor market that works for Minnesotans and for Minnesota employers. ■

Barriers to Getting Ahead

Low-income workers in Minnesota and elsewhere in the country face a variety of employment obstacles, including access to affordable child care, transportation and education.



Getting and keeping a job can be difficult, particularly for low-income workers who don't have access to affordable child care, transportation and educational opportunities. This article will look at the most prevalent barriers to employment that low-wage workers encounter in Minnesota.

For the purpose of this article, low-income is defined as earning

about \$20,000 per year, which is roughly the poverty threshold for a family of three (\$19,530 in 2013). Working a full-time, year-round schedule, a worker would have to make at least \$9.62 per hour to earn \$20,000 per year.

Based on seven categories of basic needs, the average wage that is necessary to maintain a basic budget for a single adult working full time with one child

in Minnesota is \$21.44 per hour. This wage varies from \$15.47 per hour in southwestern Minnesota to nearly \$25 per hour in the Twin Cities.¹

In Minnesota, low-income workers tend to be more heavily concentrated in rural than in urban areas. Twenty-three percent of working adults are low income in rural counties compared with 13 percent in Minnesota's Metropolitan Statistical Areas. In terms of age, almost 40 percent of low-income workers are between the ages of 20 and 34. Low-income workers are also less likely to have employer-provided health insurance.

Taking Care of Children

Child care is a work barrier for many low-income workers because of its high cost and limited availability in some areas of the state.² Until age 4 or 5, child care costs \$10,920 per child in Minnesota annually on average.³ By age 6, most children have entered school, and child care costs decrease

to about \$5,000 a year through age 12, when most children no longer need adult supervision at all times.

One study finds that a majority of low-income women perceived child care as a barrier to employment, especially when combined with other barriers like transportation, job quality and job experience.⁴

There is no data specific to Minnesota on how many low-income workers see child care as a barrier to employment. However, about 12 percent of families with children under 18 have earnings below the poverty level, while about 13 percent of families with children under age 5 have earnings below poverty.

In two-parent families or extended families, child care costs may be fully or partially offset by arranging work shifts to limit the hours of out-of-home child care needed. This is less likely the case in single-parent families. Forty-five percent of low-income families with a “female householder and no husband present” (American Community Survey category) have children under 5 in Minnesota.

Getting to Work

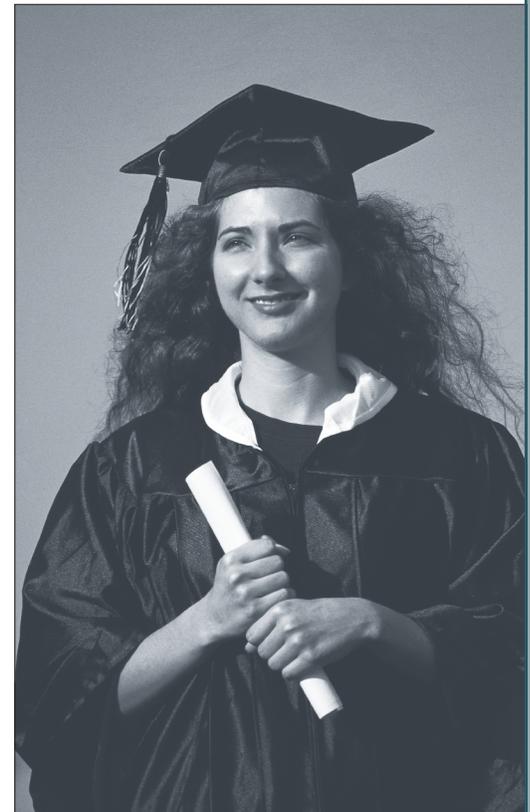
Transportation can be a barrier for low-income workers, particularly in rural areas where

public transportation is not available. The actual cost of owning a car is high: For a single full-time worker in Minnesota, the average monthly cost of transportation is \$461, with the range between \$400 and \$550 by county.⁵ Transportation costs increase from 67 percent to more than 100 percent with the addition of another working adult in the household, even if that person is working only part time.

Low-income workers more commonly take public transportation, bicycle, walk or work from home.⁶ In Minnesota, public transit systems offer a range of service options to residents, but limited schedules and routes might prevent some workers from using the service. Moreover, workers who cannot afford a car might need to limit their job selection by opting for jobs that enable them to take public transportation.

Education Pays

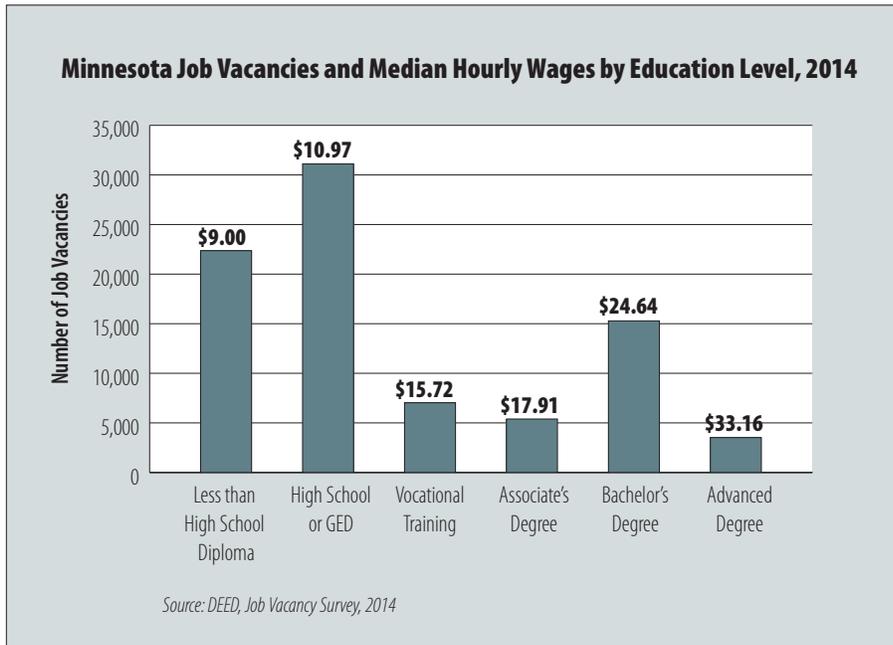
Education is another barrier for low-income workers because well-paying jobs are becoming increasingly more technical. Among Minnesota workers with less than a high school diploma, almost three out of four (73 percent) earn less than \$20,000, while only one out of five people with a bachelor’s degree and one out of 10 people with an advanced degree earn low wages.



Education translates into opportunity. Workers with less than a high school education or GED were ineligible for more than 62,300 job openings in Minnesota during the second quarter of 2014. A high school diploma or GED opens the door to an additional 31,000 job opportunities, while a four-year college degree could open the door to an additional 27,700 more jobs in Minnesota.

Moreover, wage offers, job stability and good working conditions are all highly correlated with education requirements. On average, the more education a job vacancy

FIGURE 1



requires, the higher the wage offer (see Figure 1). During slack labor markets, there is a tendency to hire workers who are overqualified for the position simply because they are available. Whether this trend continues during the recovery is an open question.⁷

Working Night and Day ... and Weekends

Finally, low-wage jobs are more likely to have nonstandard work hours, offer temporary or part-time work, and provide limited opportunity for on-the-job training or promotion.

TABLE 1

Occupation	Hourly Median Wage	Percent of Occupation's Workers Earning Low Wage	Percent of All Low-wage Workers Working in the Occupation
Cashiers	\$9.11	82.4%	5.2%
Retail Salespersons	\$9.38	57.2%	3.8%
Cooks	\$9.16-\$12.84	71.5%	2.9%
Waiters and Waitresses	\$8.68	71.9%	2.8%
Nursing Assistants, Psychiatric, and Home Health Aides	\$11.70-\$15.00	58.1%	2.7%
Janitors and Building Cleaners	\$11.46	56.7%	2.6%
Personal Care Aides	\$10.88	69.3%	2.5%
Stock Clerks and Order Fillers	\$11.57	55.0%	1.6%
Laborers and Freight, Stock, and Material Movers, Hand	\$13.27	52.8%	1.6%

Source: CPS microdata 2010-2013 sample, Occupational Employment Statistics, 1Q 2014 wages

Out of the top 15 occupations in Minnesota with the most low-income workers, nine of them have nonstandard work hours, extending beyond 6 a.m. to 6 p.m. on weekdays.⁸ These nine occupations account for 25.7 percent of all low-income workers in Minnesota (see Table 1). Workers with nonstandard work hours have limited public transportation and child care options.

Conclusion

Low-income workers in Minnesota face barriers to finding and maintaining employment. These barriers include access to affordable child care, access to transportation and adequate education, and job training for career progression. Child care and transportation barriers are compounded by atypical or irregular work hours, which are more common in low-wage jobs. 



¹Cost of Living in Minnesota, <http://mn.gov/deed/data/data-tools/col/>.

²Huston, Aletha C., "Childcare for Low-Income Families: Problems and Promises," *Work-family Challenges for Low-Income Parents and Their Children*, 2004.

³Rohrer, Amanda, "Cost of Living with Children," *Minnesota Employment Review*, October 2014, <http://mn.gov/deed/newscenter/publications/review/october-2014/fun-wth-statistics.jsp>.

⁴Lee, Shawna J. and Vinokur, Amiram D., "Work Barriers in the Context of Pathways to the Employment of Welfare-to-Work Clients," *Am J Community Psychol*, Oct. 2, 2007.

⁵Cost of Living in Minnesota, <http://mn.gov/deed/data/data-tools/col/>.

⁶Rohrer, Amanda, "Low-Income Workers in Minnesota," *Minnesota Employment Review*, September 2014, <http://mn.gov/deed/newscenter/publications/review/september-2014/low-income-workers.jsp>.

⁷Lambert, Susan J., "Lessons from the Policy World: How the Economy, Work Supports, and Education Matter for Low-Income Workers," *Work and Occupations*, February 2009.

⁸Bureau of National Affairs, "Workers with Nonstandard Hours Face Child Care, Transit Obstacles," *HR Focus: Work and Family*, October 2013.

In Search of the Independent Contractor

The freelance worker revolution might be under way, but you can't prove it by the data.

The Johansen-Dahl family lives just south of Taylors Falls. The family consists of parents Mike and Mary and two 20-something daughters, Ashley and Brittany. The family runs a small apple orchard that is open for “U-pick ‘em” on weekends in

August, September, and October. All of the family pitches in with orchard chores, especially during the fall. The orchard is legally organized as an unincorporated partnership, with all four family members listed as partners.

Mike is also a partner in a two-attorney firm that is registered as an unincorporated limited liability partnership, and he serves on the local county board. Mary is an accountant at an incorporated CPA partnership. She is also head volleyball coach at the local high school for four months during the fall and coaches club volleyball during the other eight months.

Ashley delivers newspapers in the morning and has started going to Elance-oDesk.com to bid on web design projects, having just completed a web designing degree. Last month she won two jobs.

Brittany is a restaurant hostess in Stillwater and is the music director at the family's church.

If one counts carefully, each member of this fictional family has three jobs, except for Mary, who has four jobs, bringing the total for the entire family to 13. Or is it five jobs, four side businesses and four hobbies? Or is it some other combination?



The family's work schedule might seem extreme, but their busy workdays aren't much different from what some media are reporting about the growing number of freelancers, consultants, independent contractors, sole proprietors and self-employed. The emerging independent workforce is being referred to as the 1099 economy (or the sharing economy, gig economy, freelance economy or flex economy.)

According to media reports, these independent workers are showing up everywhere — everywhere, that is, except in employment statistics compiled by DEED. Does that mean DEED's employment numbers are missing the shift to 1099 economy jobs or are the reports of the 1099 economy shift overstated? This story examines those questions.

The 1099 Economy

Estimates of the size of the 1099 economy are impressive. A survey sponsored by the Freelancers Union and Elance-oDesk last year concluded that 53 million Americans (34 percent of the U.S. workforce) are working in the 1099 economy. Another study by MPO Partners reports a headcount of 17.9 million "solopreneurs" or independent workers who regularly work 15-plus hours a week and

Self-Employment

In the American Community Survey, the class-of-worker question (included below) categorizes workers based on their relationship to the business where they work. The question identifies self-employed workers and distinguishes between self-employed workers in incorporated and nonincorporated businesses. In cases where a respondent worked at more than one job or business in the last week, the class-of-worker question refers to the job or business for which they worked the most hours.

Was this person ...

- An employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?
- An employee of a PRIVATE NOT-FOR-PROFIT, tax exempt, or charitable organization?
- A local GOVERNMENT employee (city, county, etc.)?
- A state GOVERNMENT employee?
- A federal GOVERNMENT employee?
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?
- Working WITHOUT PAY in family business or farm?

Adapted from Changes in Self-Employment: 2010 to 2011, U.S. Census Bureau, January 2013. www.census.gov/prod/2013pubs/acsbr11-21.pdf.



an additional 12.1 million independent workers (termed side-giggers) who work fewer than 15 hours a week on a recurring basis.¹

Of the three employment series published by DEED, two aren't designed to capture 1099 jobs. Both the Current Employment Statistics (CES) and Quarterly Census of Employment and Wages (QCEW) series track only wage and salary employment compiled from payroll numbers provided by employers.²



Some 1099 workers, however, are included in wage and salary employment statistics because some freelancers, independent contractors, consultants and other self-employed people incorporate their businesses. They are classified as "incorporated self-employed," giving themselves paychecks that show up in DEED's administrative records and are added into CES/QCEW job numbers.

The other 1099 workers are "unincorporated self-employed" and are not counted in CES/QCEW totals. Most 1099 workers are sole proprietors and receive payments for their work without Social Security, Medicare or income taxes deducted. Instead, 1099 workers report their income for tax

purposes using 1099 forms, thus the 1099 label.

DEED's third employment series, Local Area Unemployment Statistics (LAUS), theoretically is designed to capture some 1099 work activity. LAUS is based on household responses to the monthly Current Population Survey (CPS), which is used to estimate the number of people in the labor force, both employed and unemployed.

Roughly 60,000 households nationally, including 1,600 in Minnesota, are asked each month if anyone in the household worked for payment in the previous week. If so, then they are asked "were the individuals employed by government, by a private company, a nonprofit organization or were they self-employed?" If some of the individuals were self-employed, the next question asked is "Are the businesses incorporated?" Respondents who say no are classified as unincorporated self-employed. Otherwise, they are counted as incorporated self-employed and show up in wage and salary employment in LAUS data.³

So if a surge in freelance employment is occurring, then unincorporated self-employed estimates should have climbed

over the last few years. But Minnesota's unincorporated self-employed numbers have until last year been on a downward trend (see Figure 1).

According to Current Population Survey (CPS) responses, nonfarm unincorporated self-employed in Minnesota peaked at 189,000 in 2001. The numbers then declined to 125,000 in 2013, before showing some signs of recovering in 2014 at 137,000. As measured by the CPS, 2014 wage and salary employment in the state is up 140,000 from 2009, while nonfarm unincorporated self-employment has decreased 9,000 over the same period.

The American Community Survey (ACS) from the U.S. Census Bureau is another household-based survey that paints a similar picture. Three million households in the U.S. are surveyed once a year, with roughly 70,000 Minnesota households (3 percent of the state's total) participating. The ACS, just like the CPS, asks questions about the employment status of household members. (See the self-employment sidebar for the questions asked.) ACS self-employed estimates, which include both incorporated and unincorporated self-employed, also shows a downward trend (see Figure 2).

FIGURE 1

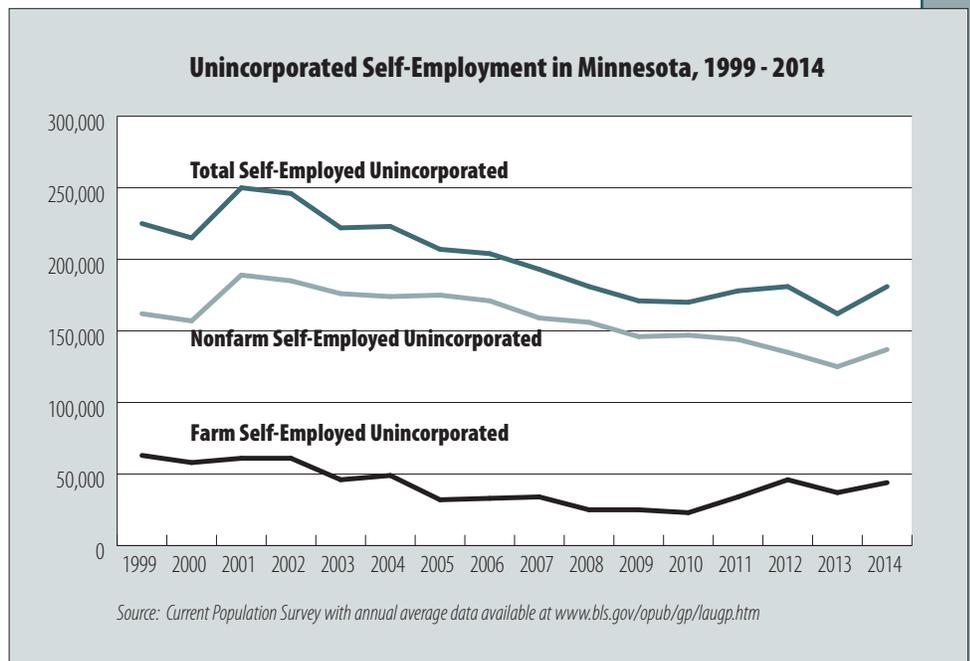


FIGURE 2

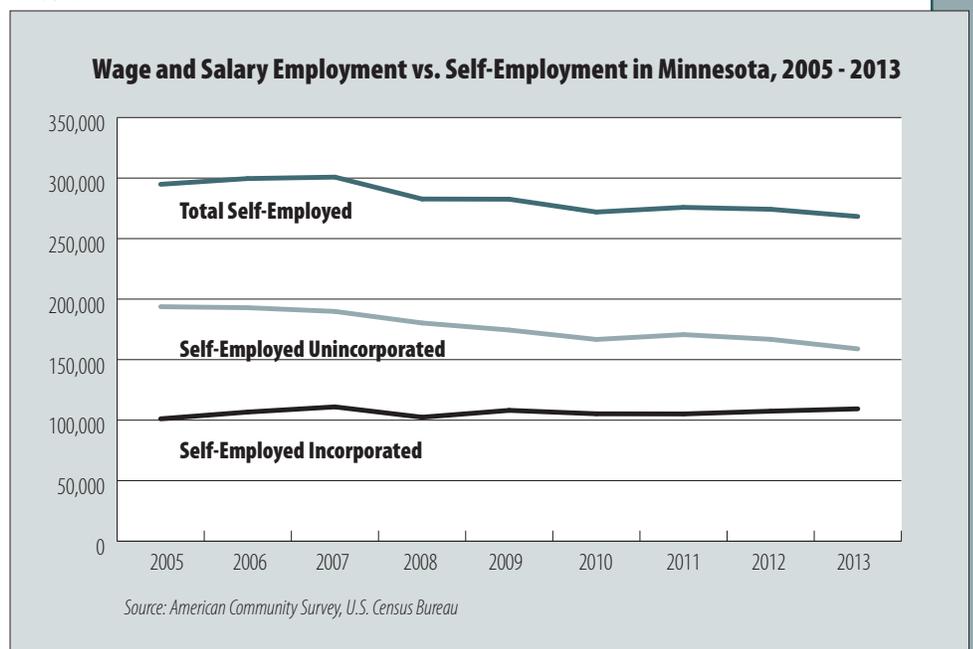


TABLE 1

	LAUS Job Count	CES/QCEW Job Count	BEA Nonfarm Proprietor Job Count (NP)	Census Nonemployer Business Job Count (NB)
	Unincorporated Self-Employed Job	Wage and Salary Job		
Mike	Attorney Job (1)	County Board (1)	Attorney Job(1) Apple Orchard Job (1)	Attorney Job(1) Apple Orchard Job (1/4)
Mary		Accountant Job (1) Head Volleyball Coach Job (1/3) Club Volleyball Job (2/3)	Apple Orchard Job (1)	Apple Orchard Job (1/4)
Ashley	Newspaper Delivery Job (1)		Newspaper Delivery Job (1) Apple Orchard Job (1) Web Developer Job (1)	Newspaper Delivery Job (1) Apple Orchard Job (1/4) Web Developer Job (1)
Brittany		Restaurant Hostess Job (1) Music Director Job(1)	Apple Orchard Job (1)	Apple Orchard Job (1/4)
Total	2 Jobs	5 Jobs	7 Jobs	5 Jobs

Source: Minnesota Department of Employment and Economic Development

Wage and salary employment climbed by 135,000 between 2009 and 2013, while total self-employment has declined by 4,000 workers since 2009. ACS self-employment estimates peaked in 2007 at 301,000, but fell by nearly 11 percent to 268,000 by 2013.

A careful reading of the self-employment sidebar listing the relevant self-employment questions in the two household surveys might help clear up some of the mystery surrounding the direction of Minnesota’s 1099 workforce.

If a person worked at more than

one job or business, only the place where he or she worked the most hours is counted in the surveys. All of the Johansen-Dahl family members contribute to keeping the apple orchard going, but they all work more hours in other jobs. The apple orchard work, therefore, isn’t included in any of DEED’s three employment series.

Table 1 tracks how the family’s various hypothetical work activities would be counted in DEED’s three employment series and two other employment series. The other employment series — the U.S. Census Bureau’s Nonemployer

Businesses (NB) statistics and Bureau of Economic Analysis’ Nonfarm Proprietors (NP) statistics — are included in the table because some of the family’s work activities show up in these employment series.⁴

Both the nonemployer and proprietor statistics are based on tax return information compiled by the Internal Revenue Service. The tax returns are from corporations, partnerships and sole proprietorships that report business income but have no employees. Most 1099 workers fall under the sole proprietorship for income tax purposes.

Counting Jobs in the Johansen-Dahl Family

Mike's law firm work is his primary job. The law firm is unincorporated, so Mike shows up as unincorporated self-employed in LAUS. Mary's primary job is her accountant work at her incorporated CPA partnership, so she is counted as having a wage and salary job in LAUS.

Ashley spends the most time delivering newspapers. Up until recently, Ashley mistakenly reported her newspaper delivery job as a wage and salary job because she used to get a paycheck from the newspaper. Two years ago, the newspaper moved delivery workers off their payroll, converting them to independent contractors. Mary now gets a 1099 form instead of a W-2 form at the end of the year. Her independent contractor status makes her unincorporated self-employed in LAUS numbers.

Ashley isn't alone in making this mistake. The Bureau of Labor Statistics estimates that 12 to 15 percent of independent contractors mistakenly consider themselves wage and salary employees. This may account for some of the missing 1099 workers in traditional employment statistics.

Brittany's hostess hours exceed the hours she devotes to the apple orchard or her music directing, so her hostess work is a wage and salary job.

The family would be tallied as having four jobs — two unincorporated self-employed jobs and two wage and salary jobs — in LAUS data.

Mary receives paychecks from her CPA firm, from the high school during the four-month season and from the volleyball club the other eight months. Mary's three jobs are counted as two jobs in CES/QCEW numbers on an annual average basis. Mike receives a small monthly paycheck for his county

board work. That is another CES/QCEW job on an annual average basis.

Brittany gets paid weekly at the restaurant and receives a small monthly paycheck from the church for her music director work. Brittany is counted as having two jobs in CES/QCEW annual average data. Ashley doesn't get a paycheck from any of her work activities, so her jobs don't show up in CES/QCEW data. Altogether, the family tallies five CES/QCEW annual average jobs.

Ashley's work activities show up three times in the NP data, as she is a partner in the apple orchard and has set up two



sole proprietorships for her newspaper delivery and her web design work. The NP job count assigns each partner in a partnership a job, while only one job per partnership is counted in NB job tallies. The family's work activities show up as seven jobs in Nonfarm Proprietors data and as five jobs in Nonemployer Business statistics.

Users of the various employment series also need to be aware of the annual average factor. LAUS and CES/QCEW jobs are figured on an annual average basis. If a job lasts only six

months, it's counted as half a job. A sole proprietorship that lasts six months or only involves six months work each year isn't counted as half a job in NB and NP statistics. Instead the sole proprietorship work shows up as one job in the NB and NP data.

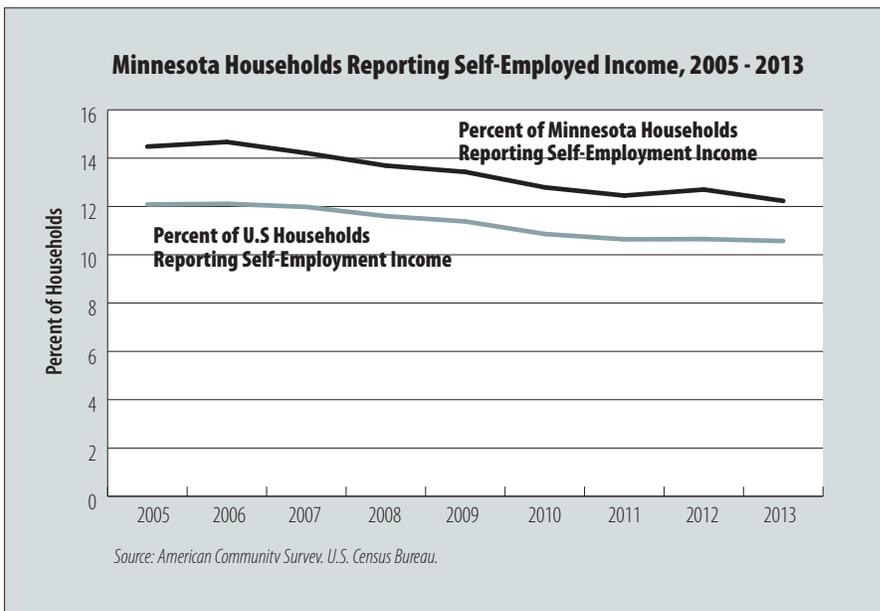
Conclusion

Over the last few years, DEED has devoted research resources to get a better handle on the 1099 economy, primarily to understand the importance of the 1099 workforce in Minnesota's labor market and in the overall

economy. DEED has already started to explore NP and NB numbers and other tax data to better understand self-employed and 1099 workers.⁵

The 1099 economy, however, remains a puzzle, showing up in some data but absent in other data. As shown in Figure 3, the percent of households in Minnesota and nationally that report receiving self-employment income has been slipping since 2006. That seems inconsistent with the assertion by some that the 1099 economy is surging. **T**

FIGURE 3



¹Freelancing in America, https://fu-web-storage-prod.s3.amazonaws.com/content/filer_public/7c/45/7c457488-0740-4bc4-ae45-0aa60daac531/freelancinginamerica_report.pdf. 2014 State of Independence in America, http://info.mbopartners.com/rs/mbo/images/2014-MBO_Partners_State_of_Independence_Report.pdf.

²For a more detailed introduction to DEED's three employment series, see "Three's Company", Minnesota Economic Trends, May 2008.

³For a detailed report, see "Self-employment in the United States," Monthly Labor Review, September 2010.

⁴Nonemployer business statistics are found at www.census.gov/econ/nonemployer/. Proprietors employment statistics are at <http://www.bea.gov/regional/index.htm>.

⁵See these two DEED articles for more information on the 1099 workforce in Minnesota: "Who's Counting," Minnesota Employment Review, September 2013, and "On Their Own," Minnesota Employment Review, December 2010. Another excellent article on self-employment in Minnesota and surrounding states is "Self-employed: To be, or not to be," Fedgazette, January 2012.

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