

*Minnesota*  
**Minimum-Wage**  
**Report, 2015**





# Minnesota Minimum-Wage Report, 2015

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## Executive summary

This report, part of an occasional series, presents statistics about minimum-wage workers in Minnesota. Specifically, it provides data regarding those hourly workers in the state who are paid the full effective minimum wage or less.<sup>1</sup> The effective minimum is the higher of the applicable state and federal minimum-wage levels. The full minimum (e.g., the state level of \$9.00 an hour at the time of this report) is the amount that applies in the absence of reductions that occur in certain circumstances (see below on this page).

The report presents both trends and current descriptive statistics. All figures regarding Minnesota's hourly workers at or below the minimum wage are estimates computed from the Current Population Survey (CPS), conducted monthly by the U.S. Census for the U.S. Bureau of Labor Statistics.

The report focuses on hourly workers partly because of data issues concerning salaried workers in the CPS<sup>2</sup> and partly because some salaried workers are exempt from the federal and state minimum-wage laws as executive, administrative or professional employees.

From July 2009 through July 2013, Minnesota's full effective minimum wage was the federal level of \$7.25 an hour, because the state level was \$6.15. Minnesota raised its full minimum wage to \$8.00 effective Aug. 1, 2014 and to \$9.00 an hour effective Aug. 1, 2015. The state's full minimum wage will further increase to \$9.50 an hour on Aug. 1, 2016, and will be adjusted annually for inflation beginning Jan. 1, 2018.<sup>3</sup>

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<sup>1</sup> Overtime pay, tips and commissions are excluded from hourly pay in the data used. Thus, the data is congruent with Minnesota's minimum-wage law, which provides that tips are excluded from wages for purposes of that law (Minnesota Statutes §177.24, subd. 2 (Appendix A)). Workers' reported wages may be less than the full effective minimum because the workers may be exempt, a lower minimum than the full minimum may apply to them, they may be paid less than the applicable minimum illegally or their hourly earnings may be misreported.

<sup>2</sup> See p. 2.

<sup>3</sup> Minnesota Statutes §177.24, subd. 1 (Appendix A).

With some exceptions, federal law exempts workers whose employers have less than \$500,000 in annual revenue; Minnesota, however, provides a lower minimum wage for "small" employers. As of Aug. 1, 2014, "small" employers in Minnesota are those with annual revenues less than \$500,000. As of Aug. 1, 2015, the Minnesota small-employer minimum was \$7.25 an hour. For workers younger than age 20, both federal and state law provide a lower minimum during the first 90 consecutive days of employment. Minnesota also provides a lower minimum for workers younger than age 18 regardless of length of employment. As of Aug. 1, 2015, the Minnesota "youth minimum" was \$7.25 an hour.<sup>4</sup>

Federal law allows employers to count tips in applying the full minimum wage, subject to a lower minimum for tipped employees' direct pay. Minnesota, however, prohibits employers from counting tips for purposes of either the state or federal minimum.<sup>5</sup>

The following are the report's major findings.

### Trends in minimum wage relative to inflation and other wages

- Adjusted for inflation, the 2015 U.S. minimum wage of \$7.25 an hour is substantially below its levels of the late 1970s.<sup>6</sup> The 2015 Minnesota minimum of \$9.00 is close to the inflation-adjusted Minnesota minimums of the late 1970s and somewhat below the inflation-adjusted U.S. minimums of those years.
- The U.S. minimum wage has fallen relative to average hourly earnings since the 1970s. Adjusted for inflation, U.S. average hourly

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<sup>4</sup> The federal youth minimum has been \$4.25 since September 1997. The Minnesota small-employer and youth minimums will rise to \$7.75 on Aug. 1, 2016, and will be adjusted annually for inflation beginning Jan. 1, 2018 (Minnesota Statutes §177.24, subd. 1 (Appendix A)).

<sup>5</sup> Minnesota Statutes §177.24, subd. 2 (Appendix A).

<sup>6</sup> Comparisons are made to the 1970s because the Minnesota minimum wage took effect in 1974.

earnings were at about the same level in 2015 as in the 1970s.

- Minnesota’s 2015 minimum wage of \$9.00 an hour was 38 percent of the average hourly wage of all Minnesota nonfarm workers (\$23.57) and 49 percent of the median wage of these workers (\$18.54).<sup>7</sup>

### Trends in Minnesota’s minimum-wage population

- For 2015, an estimated 216,000, or 13.6 percent, of Minnesota’s 1.58 million hourly workers earned the effective minimum wage of \$9.00 or less. The percentage at or below the minimum had been 4.7 percent in 2013, when the effective minimum wage was the federal level of \$7.25.
- When salaried workers (not included in this report) are also counted, the total number of wage-and-salary workers earning an hourly rate of \$9.00 or less in 2015 is an estimated 259,000, or 10.0 percent of an estimated 2.57 million total wage-and-salary workers.<sup>8</sup>
- In 2015, an estimated 19 percent of Minnesota hourly workers at or below the minimum wage received overtime pay, tips or commissions (OTC). The proportion of minimum-wage workers receiving OTC has been relatively high when the minimum has been relatively low, and vice versa.<sup>9</sup>

### Characteristics of Minnesota’s minimum-wage workers

The following projections pertain to Minnesota for August 2015 through July 2016, during which Minnesota’s full effective minimum wage was the state level of \$9.00 an hour.

<sup>7</sup> The median is the halfway point in the wage distribution, where half of all wages are above and half are below.

<sup>8</sup> See note 26 on p. 7.

<sup>9</sup> This is because in the lower part of the wage distribution, the proportion of hourly workers receiving OTC is relatively high at lower wage levels.

### Industry

- About 128,000 hourly workers were employed in eating and drinking places. Fifty-seven percent of these, or about 72,000, were paid the minimum wage or less, by far the highest percentage among industries. About 34 percent of all hourly workers paid the minimum or less were in eating and drinking places.
- Among hourly workers at the minimum or less, those in eating and drinking places were the most likely to receive overtime pay, tips or commissions (OTC) (40 percent).

### Occupation

- About 139,000 hourly workers were employed in food preparation and serving occupations. This group had the highest proportion of hourly workers paid the minimum wage or less (52 percent) among all occupations. About 33 percent of all hourly workers paid the minimum or less were in this occupation.
- Food preparation and serving also showed the highest percentage of workers with OTC among hourly workers paid the minimum or less (38 percent).

### Age and gender

- About 115,000 hourly workers were 15 to 19 years old. Among these, 54.3 percent earned \$9.00 an hour or less, compared with 8.1 percent of 25- to 54-year-olds and 6.8 percent of those 55 and older.
- Fifty-five percent of all hourly workers paid the minimum or less were 15 to 24 years old.
- Among female hourly workers, 15.6 percent earned the minimum wage or less, compared with 11.4 percent of men.

### Full-time/part-time status

- About 483,000 of Minnesota’s hourly workers were part-timers (working fewer than 35 hours a week). Among these, 30.1 percent earned the minimum wage or less,

compared with 6.4 percent of full-time hourly workers.

- Part-time workers made up 67 percent of all workers paid the minimum or less, while accounting for 30 percent of the hourly workforce.

### **Education**

- About 88,000 hourly workers age 20 and older had less than a high-school education. An estimated 20.1 percent of these were paid the minimum wage or less, compared with 11.1 percent of those with a high-school diploma and 9.3 of those with at least some college.
- Among hourly workers age 20 and older, workers without a high-school diploma made up 11.5 percent of those at or below the minimum, even though they comprised only 6.0 percent of this part of the workforce.

### **Marital status**

- About 735,000 of Minnesota's hourly workers age 20 and older were married, and 734,000 unmarried. Workers paid the

minimum wage or less comprised 14.6 percent of unmarried hourly workers age 20 and older, as opposed to 6.3 percent of those who were married.

### **Poverty status**

- About 151,000 of Minnesota's hourly workers lived in households below the poverty line. An estimated 26.0 percent of these were paid the minimum wage or less, as opposed to 12.3 percent of those above the poverty line.
- Workers in households below the poverty line made up 18.1 percent of all hourly workers paid the minimum or less, while accounting for only 9.5 percent of all hourly workers.

### **Metropolitan residence**

- About 1,142,000 of Minnesota's hourly workers lived in metropolitan areas, and about 443,000 in nonmetropolitan areas. About 15.7 percent of those in nonmetropolitan areas were paid the minimum wage or less, as opposed to 12.8 percent in metropolitan areas.



## Introduction

The federal minimum wage was enacted in 1938 as a means of raising the earnings of low-wage workers. Initially, coverage was limited to employees engaged in interstate commerce or in the production of goods for interstate commerce. Coverage has since been expanded to include a majority of the labor force. From its initial level of 25 cents an hour, the federal minimum has been raised about two dozen times. It stood at \$5.15 from 1997 to 2007, and was then raised in three increments reaching its current level of \$7.25 on July 24, 2009.

Minnesota's minimum wage took effect in 1974, and has roughly followed the federal minimum with some exceptions, most notably for the past few years. The state's minimum wage was raised from \$6.15 to \$8.00 an hour effective Aug. 1, 2014 and to \$9.00 effective Aug. 1, 2015. It will increase further to \$9.50 on Aug. 1, 2016 and will be adjusted annually for inflation beginning Jan. 1, 2018.<sup>10</sup>

The effective minimum is the higher of the applicable state and federal levels. Thus, for most nonexempt workers in Minnesota, the effective minimum as of Aug. 1, 2015 was the state level of \$9.00.<sup>11</sup> For the period August 2015 through July 2016, an estimated 216,000 hourly workers in Minnesota, or 13.6 percent of an estimated total of 1.58 million hourly workers, are projected to be paid the full effective minimum wage or less.<sup>12</sup> For the same period, the overall number of Minnesota wage-and-salary workers totaled an estimated 2.57 million, with an estimated 259,000, or 10.0 percent, earning \$9.00 an hour or less.<sup>13</sup>

As policymakers consider the minimum wage, a number of questions arise: How has the minimum wage changed over time relative to inflation? Where does it stand relative to other wages and how has this changed? What

proportion of workers are paid the minimum wage or less? What are the characteristics and circumstances of these workers, and in what occupations and industries are they most commonly found?

This report, part of an occasional series, presents statistics about hourly minimum-wage workers in Minnesota. Specifically, it provides data regarding those hourly workers in the state who are paid the full effective minimum wage or less. The report first presents trends in the U.S. and Minnesota minimum wages relative to inflation and to other wages. It then presents trends for 1997 to the present regarding hourly workers in Minnesota who are paid the effective minimum wage or less, and descriptive statistics regarding these workers estimated for August 2015 through July 2016.<sup>14</sup> Appendix A contains Minnesota's minimum-wage statute. Appendix B describes data and estimation procedures.

### Exemptions and lower minimums

Both federal and state law provide several exemptions from minimum-wage coverage.<sup>15</sup> For example, Minnesota exempts some agricultural employees, seasonal camp staff, elected government officials and several other groups. Both Minnesota and federal law exempt certain executive, administrative and professional staff and traveling salespeople. A worker may be subject to either the federal or state minimum wage, or both, or neither, depending on whether he or she meets the respective exemption conditions.

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<sup>14</sup> Overtime pay, tips and commissions are excluded from hourly pay in the data used. Thus, the data is congruent with Minnesota's minimum-wage law, which provides that tips are excluded from wages for purposes of that law (Minnesota Statutes §177.24, subd. 2 (Appendix A)). Workers' reported wages may be less than the full effective minimum because the workers may be exempt, a lower minimum than the full minimum may apply to them, they may be paid less than the applicable minimum illegally or their hourly earnings may be misreported.

<sup>15</sup> The Minnesota exemption categories are in Minnesota Statutes §177.24, subd. 1 (Appendix A). The federal exemption categories are at [www.dol.gov/elaws/esa/flsa/screen75.asp](http://www.dol.gov/elaws/esa/flsa/screen75.asp).

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<sup>10</sup> Minnesota Statutes §177.24, subd. 1 (Appendix A).

<sup>11</sup> See next section regarding exemptions from minimum wage coverage.

<sup>12</sup> See next section regarding the full minimum wage and lower minimums in certain situations.

<sup>13</sup> See note 26 on p. 7.

Lower minimum-wage levels apply to some workers. Workers whose employers have annual revenues less than \$500,000 are generally not covered under the federal minimum wage law if they are not involved in interstate commerce;<sup>16</sup> however, “small” employers in Minnesota are subject to a lower state minimum wage. As of Aug. 1, 2014, “small” employers in Minnesota are those with annual revenues less than \$500,000. As of Aug. 1, 2015, the Minnesota small-employer minimum was \$7.25 an hour (it will rise to \$7.75 on Aug. 1, 2016). For workers younger than age 20, both federal and state law provide a lower minimum during the first 90 consecutive days of employment. Minnesota also provides a lower minimum for workers younger than age 18 regardless of length of employment. The federal “youth minimum” has been \$4.25 an hour since September 1997. As of Aug. 1, 2015, the Minnesota youth minimum was \$7.25 an hour (it will rise to \$7.75 on Aug. 1, 2016).<sup>17</sup> Special federal and state rules also apply to workers with disabilities.<sup>18</sup>

Federal law allows employers to apply tips toward payment of the full minimum wage;<sup>19</sup> Minnesota, however, prohibits employers from counting tips toward payment of either the state or federal minimum.<sup>20</sup>

The “full minimum wage” at the federal or state level is the amount that is *not* reduced in any of the ways described above.

## Data and estimation technique

All figures in this report regarding Minnesota’s hourly workers at or below the minimum wage are estimates derived from the Current

Population Survey (CPS). The CPS, a monthly household survey conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics, provides data about the labor market experience of U.S. workers. This report combines the monthly data for each year. Because of sample size issues, the statistics in the report are derived with methods that reduce sampling variation by using multiple years of data and (for most of these statistics) a combination of Minnesota and U.S. data. See Appendix B for details.

Because increases during the last decade in the state and federal minimum wages have taken place in July (federal minimum) or August (state minimum), the report uses years running from August through July as the time unit of analysis. The CPS data pertains to the week containing the 12<sup>th</sup> day of each month, so the July data for 2007, 2008 and 2009 reflects the federal minimum in effect before the increase occurring on July 24 of each of those years.

## Focus on hourly workers

For three reasons, this report is limited to hourly workers. First, reported weekly earnings — used to estimate hourly pay for salaried workers — are unrealistically low for a significant number of salaried workers in the CPS. Second, the weekly earnings figure includes overtime pay, tips and commissions, in contrast with the hourly pay figure used for hourly workers, which does not. Third, many salaried workers are exempt from the federal and state minimum-wage laws as executive, administrative and professional employees.

<sup>16</sup> Individuals are still covered if they work for a hospital, business providing medical or nursing care for residents, school or preschool, or government agency. See [www.dol.gov/whd/regs/compliance/whdfs14.pdf](http://www.dol.gov/whd/regs/compliance/whdfs14.pdf).

<sup>17</sup> The Minnesota small-employer and youth minimums will be adjusted annually for inflation beginning Jan. 1, 2018 (Minnesota Statutes §177.24, subd. 1 (Appendix A)).

<sup>18</sup> Information about the federal provisions is available at [www.dol.gov/whd/minwage/q-a.htm#](http://www.dol.gov/whd/minwage/q-a.htm#). State provisions are in Minnesota Rules parts 5200.0030 and 5200.0040.

<sup>19</sup> A lower minimum applies to tipped employee’s direct (non-tip) pay. See [www.dol.gov/whd/regs/compliance/whdfs15.pdf](http://www.dol.gov/whd/regs/compliance/whdfs15.pdf).

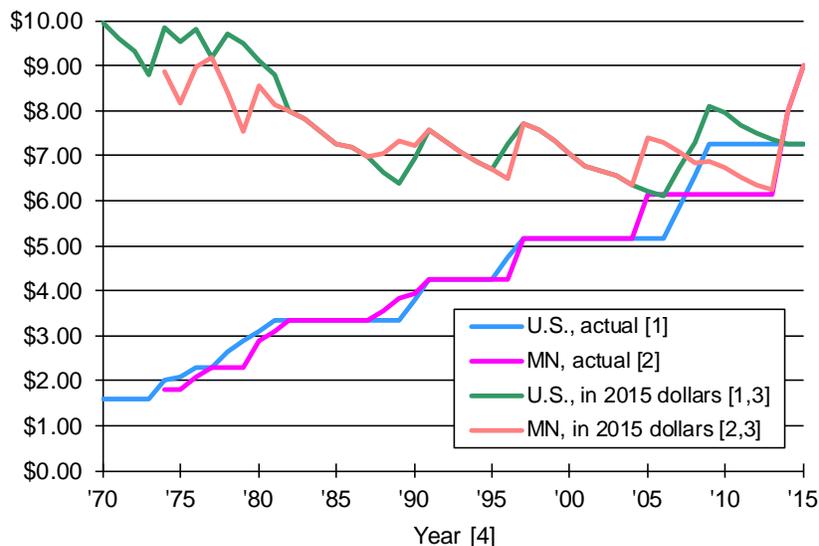
<sup>20</sup> Minnesota Statutes §177.24, subd. 2 (Appendix A).

### The minimum wage and inflation

From its inception in 1974, the Minnesota minimum wage roughly followed its U.S. counterpart through 2004. Since that time, the U.S. minimum has risen in three stages to \$7.25 in 2009 while the Minnesota minimum has risen to \$6.15 in 2005, \$8.00 in 2014 and \$9.00 in 2015.<sup>21</sup> Adjusted for inflation, the 2013 U.S. and Minnesota minimums were substantially below their levels of the late 1970s. The 2015 Minnesota minimum of \$9.00 is close to the inflation-adjusted Minnesota minimums of the late 1970s and somewhat below the inflation-adjusted U.S. minimums of those years.

- The full Minnesota minimum wage rose from \$1.80 in 1974 to \$9.00 in 2015. The U.S. minimum rose from \$1.60 in 1974 to \$7.25 in 2009, its current level.
- Adjusted for inflation:
  - the 2013 Minnesota minimum (\$6.15, just before the recent increases) was 30 percent less than in 1974, while the 2015 Minnesota minimum (\$9.00) was about two percent more than in 1974; and
  - the 2015 U.S. minimum (\$7.25) was about 26 percent less than in 1974.

**Figure 1 Full minimum wage, actual and inflation-adjusted, Minnesota and the United States, 1970–2015**



Effective date	New minimum wage level		Effective date	New minimum wage level	
	United States [1]	Minnesota [2]		United States [1]	Minnesota [2]
2/1/68	\$1.60		1/1/89		\$3.85
1/1/74		\$1.80	1/1/90		\$3.95
5/1/74	\$2.00		4/1/90	\$3.80	
1/1/75	\$2.10		1/1/91		\$4.25
1/1/76	\$2.30		4/1/91	\$4.25	
10/1/76		\$2.10	10/1/96	\$4.75	
9/15/77		\$2.30	9/1/97	\$5.15	\$5.15
1/1/78	\$2.65		8/1/05		\$6.15
1/1/79	\$2.90		7/24/07	\$5.85	
1/1/80	\$3.10	\$2.90	7/24/08	\$6.55	
1/1/81	\$3.35	\$3.10	7/24/09	\$7.25	
1/1/82		\$3.35	8/1/14		\$8.00
1/1/88		\$3.55	8/1/15		\$9.00

1. Data for the United States is from the U.S. Department of Labor ([www.dol.gov/whd/minwage/chart.htm](http://www.dol.gov/whd/minwage/chart.htm)).
2. Data for Minnesota is from internal records at DLI and Minnesota Statutes §177.24, subd. 1 (Appendix A). Minnesota's first minimum wage took effect Jan. 1, 1974.
3. The inflation-adjustment factor for both the U.S. and Minnesota minimum wages is the Consumer Price Index for All Urban Consumers (CPI-U) for the Minneapolis-St. Paul metropolitan area. CPI-U data is from the U.S. Bureau of Labor Statistics ([www.bls.gov/data/#prices](http://www.bls.gov/data/#prices)). The CPI-U value for 2015 was projected.
4. The minimum wage shown for each year in the graph is the level in effect as of Dec. 31 of that year.

<sup>21</sup> The Minnesota minimum will increase to \$9.50 on Aug. 1, 2016, and will be adjusted annually for inflation beginning Jan. 1, 2018 (Minnesota Statutes §177.24, subd. 1 (Appendix A)).

## The minimum wage relative to other wages: U.S. data

An important perspective on the minimum wage is its level in relation to other wages. To provide context for the Minnesota data in Figures 4 and 5, Figures 2 and 3 present U.S. trends.

### Average hourly earnings relative to inflation

Average hourly earnings for the U.S. rose consistently from 1970 to 2015 (Figure 2). Adjusted for inflation, however, they were at about the same level in 2015 as in the 1970s.

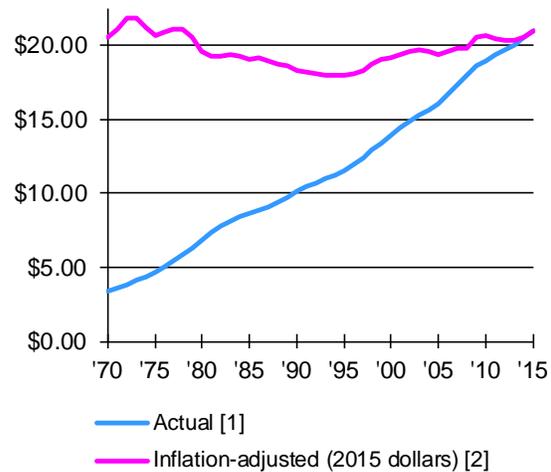
- In 2015 dollars, U.S. average hourly earnings fell from a range of \$20.50 to \$21.90 in the 1970s to a low-point near \$17.90 for 1993 to 1995, but then turned upward, reaching a projected \$20.92 for 2015.

### Minimum wage relative to average hourly earnings

Despite periodic increases, the U.S. full minimum wage has generally been lower relative to average hourly earnings after 1980 than it was before that year (Figure 3).

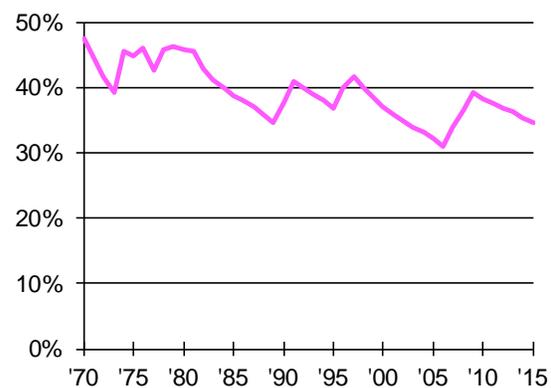
- The periods of most rapid decrease relative to average hourly earnings occurred when the federal minimum was stationary; the longest such periods were 1981 to 1989 and 1997 to 2006.
- Despite three consecutive increases in 2007 to 2009, the federal minimum in 2015 was at the same point relative to average hourly earnings — 35 percent — as in 1989.

**Figure 2** Average hourly earnings of nonfarm production and nonsupervisory workers, actual and inflation-adjusted, United States, 1970–2015



1. Data is from the Current Employment Statistics survey of the U.S. Bureau of Labor Statistics ([www.bls.gov/ces](http://www.bls.gov/ces)). The figure used here is net of overtime pay in manufacturing. The 2015 value is projected from the most recent monthly data.
2. The inflation-adjustment factor is the Consumer Price Index for All Urban Consumers (CPI-U) for the United States, from the U.S. Bureau of Labor Statistics ([www.bls.gov/data/#prices](http://www.bls.gov/data/#prices)). The 2015 value is projected from the most recent monthly data.

**Figure 3** Full minimum wage as percentage of average hourly earnings of nonfarm production and nonsupervisory workers, United States, 1970–2015 [1]



1. Minimum wage data is from the U.S. Department of Labor ([www.dol.gov/whd/minwage/chart.htm](http://www.dol.gov/whd/minwage/chart.htm)). In this figure, the minimum wage for each year is the level in effect on Dec. 31 of that year. Average hourly earnings data is from the Current Employment Statistics survey of the U.S. Bureau of Labor Statistics ([www.bls.gov/ces](http://www.bls.gov/ces)). The earnings figures used here are net of overtime pay in manufacturing. The 2015 earnings figure was projected from the most recent monthly data.

## The minimum wage relative to other wages: Minnesota data

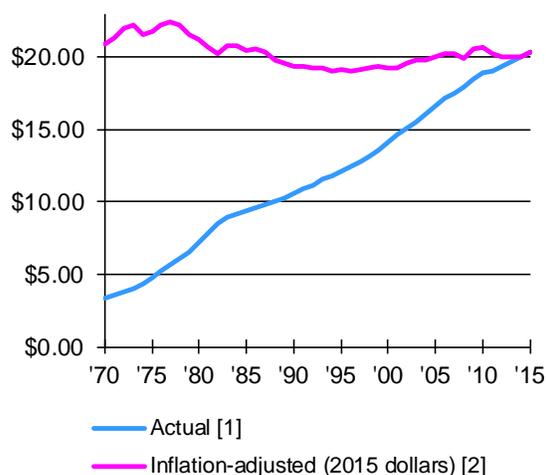
Minnesota is similar to the United States with respect to the long-term trends in wages and in the minimum wage relative to other wages.

### Average hourly earnings of production workers in manufacturing relative to inflation<sup>22</sup>

Average hourly earnings for production workers in Minnesota manufacturing rose consistently from 1970 to 2015. Adjusted for inflation, however, they were lower in 2015 than in the 1970s.

- In 2015 dollars, average hourly earnings of production workers in Minnesota manufacturing fell from and range \$20.80 to \$22.40 in the 1970s to a low-point near \$19.00 in 1996.
- Despite some growth since 1996, the inflation-adjusted hourly earnings figure of \$20.35 for 2015 is not far from the 1982 figure of \$20.22.

**Figure 4** Average hourly earnings of production workers in manufacturing, actual and inflation-adjusted, Minnesota, 1970–2015



1. Data is from the Current Employment Statistics survey of the U.S. Bureau of Labor Statistics ([www.bls.gov/ces](http://www.bls.gov/ces)) and the Minnesota Department of Economic Development. A three-year moving average is used. The 2015 value is projected.
2. The inflation-adjustment factor is the Consumer Price Index for Urban Consumers (CPI-U) for the Minneapolis-St. Paul metropolitan area, from the U.S. Bureau of Labor Statistics ([www.bls.gov/data/#prices](http://www.bls.gov/data/#prices)). The 2015 value is projected.

<sup>22</sup> The survey that produces the wage data used here (see note 1 in Figure 4) did not produce average hourly earnings estimates for the overall Minnesota nonfarm economy for the period concerned.

## Minimum wage relative to other wages

Over the past several decades, Minnesota's full effective minimum wage (FEMW) has sometimes been the federal minimum and sometimes the state minimum, depending on which of the two was higher (see Figure 1).<sup>23</sup> With the increases in the state full minimum to \$8.00 and \$9.00 in 2014 and 2015, those levels became Minnesota's effective levels for those years, given the current federal minimum of \$7.25 (the effective minimum just prior to the state increase to \$8.00 in 2014).

The increases in the FEMW in 2014 and 2015 were large relative to other state wages (as represented by average hourly earnings of production workers in manufacturing); however, these increases put the FEMW in the same range relative to other state wages as during the 1970s.

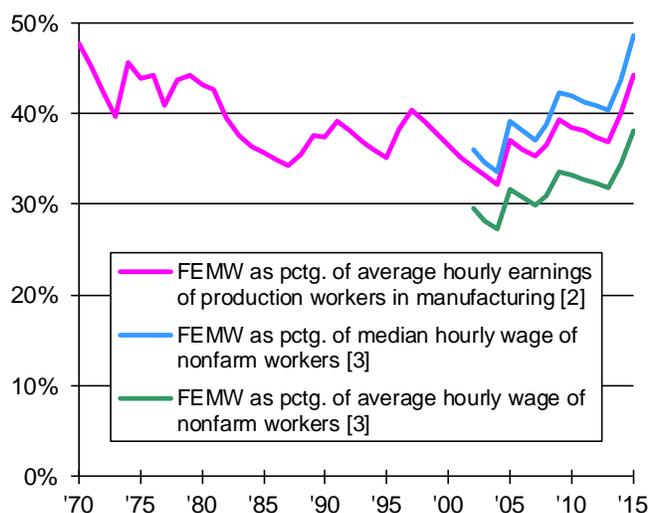
- Despite periodic increases in Minnesota's FEMW (due at different times to increases in the state and federal minimum wages), it fell relative to average hourly earnings of production workers in manufacturing, from 48 percent in 1970 to 32 percent in 2004.<sup>24</sup>
- Because of increases after 2004 in the FEMW, the FEMW rose relative to average hourly earnings of production workers in manufacturing. With the increase to \$9.00 in 2015, the FEMW stood at 44 percent of this average hourly earnings index. In the 1970s, the FEMW had ranged from 40 to 48 percent of this average earnings measure.
- The FEMW can also be compared to other wage measures. In 2015, the FEMW of \$9.00 was 38 percent of the average hourly wage of all Minnesota nonfarm workers (\$23.57) and 49 percent of the median wage of these workers (\$18.54).<sup>25</sup>

<sup>23</sup> The effective minimum-wage level is the higher of the state and federal levels.

<sup>24</sup> Average hourly earnings for the overall Minnesota nonfarm economy are unavailable for the period concerned here.

<sup>25</sup> The median is the halfway point in the wage distribution, where half of all wages are above and half are below.

**Figure 5 Full effective minimum wage as percentage of three different wage indices, Minnesota, 1970–2015 [1]**



FEMW = full effective minimum wage.

1. In this figure, the minimum wage for each year is the level in effect on Dec. 31 of that year. Figure 1 (p. 3) gives the history of U.S. and Minnesota minimum wage changes (with sources) for the period concerned. Figure 6 (p. 7) gives the U.S. and Minnesota full minimum wages and the full effective minimum wage for 1997 to present.
2. Average hourly earnings of production workers in manufacturing is from the Current Employment Statistics survey of the U.S. Bureau of Labor Statistics ([www.bls.gov/ces](http://www.bls.gov/ces)) and the Minnesota Department of Economic Development. A three-year moving average is used. The 2015 value is projected.
3. Median and average hourly wages of nonfarm workers are from the Occupational Employment Statistics survey of the U.S. Bureau of Labor Statistics (<http://www.bls.gov/oes>). The data applies to May of each year. The 2015 value is projected. Not available before 2002.

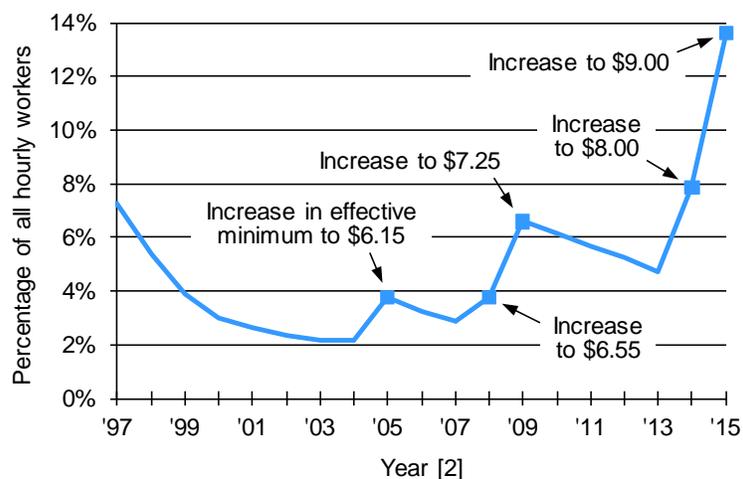
- During the period when all three wage indices have been available (beginning with 2002), the FEMW has moved in the same direction relative to each of these wage indices.

### Minnesota workers at or below the minimum wage

Increases in the minimum wage bring about increases in the number and percentage of hourly workers earning the minimum wage level or less. However, because of rising overall wages over time, the number and percentage of hourly workers earning the minimum wage or less has decreased during periods when the minimum wage has been stationary.

- Because of the increase in Minnesota’s minimum wage to \$9.00 an hour in 2015, the number of hourly workers earning the full effective minimum wage or less reached an estimated 216,000, or 13.6 percent of the estimated 1.58 million total hourly workers for that year (see note 2 in Figure 6).
- The 13.6 percent of hourly workers earning the effective minimum wage or less for 2015 was an increase from 4.7 percent for 2013, the last year the effective minimum was \$7.25, and 2.1 percent for 2004, the last year the effective minimum was \$5.15.
- When salaried workers (not included in this report) are also counted, the total number of wage-and-salary workers earning \$9.00 or less in 2015 is an estimated 259,000, or 10.0 percent of an estimated 2.57 million total wage-and-salary workers.<sup>26</sup>

**Figure 6 Percentage of hourly workers at or below the full effective minimum wage, Minnesota, 1997–2015 [1]**



	Full minimum wage [3]			Hourly workers at or below full minimum wage [4]	
	United States	Minnesota	Effective level [5]	Number	Pctg. of all
				(1,000s)	hourly workers
8/97-7/98	\$5.15	\$5.15	\$5.15	104	7.3%
8/98-7/99	5.15	5.15	5.15	79	5.4
8/99-7/00	5.15	5.15	5.15	58	3.9
8/00-7/01	5.15	5.15	5.15	45	3.0
8/01-7/02	5.15	5.15	5.15	39	2.6
8/02-7/03	5.15	5.15	5.15	36	2.3
8/03-7/04	5.15	5.15	5.15	33	2.2
8/04-7/05	5.15	5.15	5.15	34	2.1
8/05-7/06	5.15	6.15	6.15	59	3.8
8/06-7/07	5.15	6.15	6.15	51	3.2
8/07-7/08	5.85	6.15	6.15	44	2.9
8/08-7/09	6.55	6.15	6.55	56	3.8
8/09-7/10	7.25	6.15	7.25	97	6.6
8/10-7/11	7.25	6.15	7.25	91	6.1
8/11-7/12	7.25	6.15	7.25	86	5.7
8/12-7/13	7.25	6.15	7.25	81	5.2
8/13-7/14	7.25	6.15	7.25	74	4.7
8/14-7/15	7.25	8.00	8.00	124	7.9
8/15-7/16	7.25	9.00	9.00	216	13.6

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B.
2. The year in the graph is the 12-month period beginning with August of the year indicated.
3. See p. 2 (Data and estimation technique).
4. This is based on the worker's hourly rate of pay at his or her main job, excluding overtime pay, tips and commissions.
5. The effective minimum-wage level is the higher of the state and federal levels.

for August 2015 to July 2016, counts workers, not jobs. Since many workers hold more than one job, this figure is less than the job-based employment figures published by the Minnesota Department of Employment and Economic Development (DEED) (<https://apps.deed.state.mn.us/lmi/qcew/ResultsDisp.aspx> and <https://apps.deed.state.mn.us/lmi/ces/Results.aspx>). Also, this figure excludes self-employed and unpaid family workers and is therefore less than the total number of employed Minnesotans also published by DEED (<https://apps.deed.state.mn.us/lmi/laus/CurrentStats.aspx>).

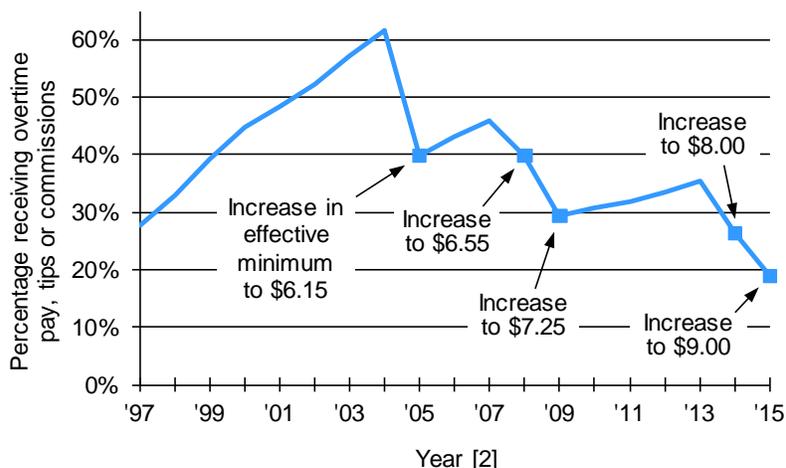
<sup>26</sup> The number of wage-and-salary workers, estimated here at 2.57 million

## Overtime pay, tips and commissions

Minimum-wage status is determined in this report according to the worker’s hourly rate of pay excluding overtime pay, tips and commissions (OTC). In 2015, an estimated 19 percent of hourly workers at or below the minimum wage received OTC.

- The proportion of minimum-wage workers receiving OTC has been relatively high when the minimum has been low relative to other wages, and vice versa. This is because in the lower part of the wage distribution, the proportion of hourly workers receiving OTC is relatively high at lower wage levels.
- Changes over time in the number of hourly workers at or below the minimum wage have primarily involved workers *not receiving OTC*. For example, from 2013 to 2015, when the effective minimum rose from \$7.25 to \$9.00, the number of hourly workers at or below the minimum who were *not receiving OTC* rose from 48,000 to 175,000, while the number who *were receiving OTC* rose far less, from 26,000 to 41,000. From 1997 to 2013, the number of minimum-wage workers *not receiving OTC* varied between 13,000 and 75,000 while the number *receiving OTC* varied between 19,000 and 29,000.

**Figure 7** Percentage receiving overtime pay, tips or commissions among hourly workers at or below the minimum wage, Minnesota, 1997–2015 [1]



	Full minimum wage [3]			Hourly workers at or below full minimum wage			
				Usually receive overtime pay, tips or commissions?			
				Yes		No	
United States	Minnesota	Effective level [4]	Number (1,000s)	Pctg.	Number (1,000s)	Pctg.	
8/97-7/98	\$5.15	\$5.15	\$5.15	29	27.7%	75	72.3%
8/98-7/99	5.15	5.15	5.15	26	32.9	53	67.1
8/99-7/00	5.15	5.15	5.15	23	39.1	35	60.9
8/00-7/01	5.15	5.15	5.15	20	44.7	25	55.3
8/01-7/02	5.15	5.15	5.15	19	48.3	20	51.7
8/02-7/03	5.15	5.15	5.15	19	52.2	17	47.8
8/03-7/04	5.15	5.15	5.15	19	57.3	14	42.7
8/04-7/05	5.15	5.15	5.15	21	61.4	13	38.6
8/05-7/06	5.15	6.15	6.15	24	39.7	36	60.3
8/06-7/07	5.15	6.15	6.15	22	43.2	29	56.8
8/07-7/08	5.85	6.15	6.15	20	45.9	24	54.1
8/08-7/09	6.55	6.15	6.55	22	39.8	34	60.2
8/09-7/10	7.25	6.15	7.25	28	29.3	69	70.7
8/10-7/11	7.25	6.15	7.25	28	30.6	63	69.4
8/11-7/12	7.25	6.15	7.25	27	31.9	58	68.1
8/12-7/13	7.25	6.15	7.25	27	33.4	54	66.6
8/13-7/14	7.25	6.15	7.25	26	35.3	48	64.7
8/14-7/15	7.25	8.00	8.00	33	26.4	91	73.6
8/15-7/16	7.25	9.00	9.00	41	18.9	175	81.1

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B.
2. The year in the graph is the 12-month period beginning with August of the year indicated.
3. See p. 2 (Data and estimation technique).
4. The effective minimum-wage level is the higher of the state and federal levels.

**Figure 8 Hourly workers at or below the minimum wage and percentage receiving overtime pay, tips or commissions by industry, Minnesota, August 2015 – July 2016 [1]**

Industry group [2]	Hourly workers at or below \$9.00 an hour					
	Hourly workers		Number (1,000s)	Pctg. among hourly workers in industry	Pctg. among all hourly workers at or below \$9.00/hour	Pctg. of these workers who receive overtime pay, tips or commissions
	Number (1,000s)	Pctg. of total				
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>	<b>18.9%</b>
Eating and drinking places	128	8.1	72	56.5	33.6	39.9
Private household services	9	.6	2	26.8	1.1	8.9
Agriculture, forestry, fishing and hunting	20	1.2	5	26.4	2.4	3.2
Arts, entertainment and recreation	39	2.5	9	23.8	4.3	18.8
Hotels, motels and other accommodation	17	1.1	4	22.8	1.8	21.8
Retail trade	215	13.6	44	20.4	20.3	5.6
Social assistance	40	2.5	6	15.2	2.8	4.7
Other services	49	3.1	7	14.6	3.3	21.3
Mgmt., adm. & support, & waste mgmt. servs.	62	3.9	8	12.7	3.7	6.3
Residential facilities	65	4.1	7	10.2	3.1	7.0
Education services	101	6.4	10	9.6	4.5	4.5
Information	27	1.7	2	8.7	1.1	6.6
Real estate, rental and leasing	15	1.0	1	8.4	.6	8.2
Wholesale trade	30	1.9	2	7.8	1.1	7.4
Health care excl. hospital & residential servs.	111	7.0	7	6.7	3.4	5.9
Transportation and warehousing	68	4.3	4	5.8	1.8	10.3
Manufacturing	236	14.9	13	5.4	5.9	7.1
Public administration [3]	62	3.9	2	4.0	1.2	16.8
Professional, scientific and technical servs.	45	2.9	2	4.0	.8	5.4
Finance and insurance	63	4.0	2	3.2	.9	11.2
Hospitals	82	5.2	2	3.0	1.1	10.3
Construction	86	5.4	3	2.9	1.2	5.4
Utilities	12	.8	~	1.6	.1	[4]
Mining	4	.3	~	1.4	.0	[4]

"~" = fewer than 500 workers.

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).
2. Except for the public administration division (see note 3), industries include the private and public sectors.
3. The public administration division is limited to those government employees not classifiable under other industries, such as construction or education services.
4. Percentages are not given for these industries because of small sample size.

## Industry

Among Minnesota industries, eating and drinking places have the greatest prevalence of hourly workers at or below the minimum wage. This industry also shows the highest percentage of workers receiving OTC among those paid the minimum wage or less.

- For August 2015 through July 2016, the proportion of hourly workers earning the minimum wage or less was highest by far in eating and drinking places, at 57 percent. The next highest percentages were in private household services (27 percent) and

agriculture, forestry, fishing and hunting (26 percent).

- About 34 percent, or 72,000, of all hourly workers paid the minimum wage or less were employed in eating and drinking places; 20 percent were in retail trade; 6 percent were in manufacturing.
- Among hourly workers paid the minimum wage or less, the percentage receiving OTC was highest in eating and drinking places (40 percent), hotels, motels and other accommodation (22 percent) and “other” services (21 percent).

**Figure 9** Hourly workers at or below the minimum wage and percentage receiving overtime pay, tips or commissions by occupation, Minnesota, August 2015 – July 2016 [1]

Occupation group	Hourly workers		Hourly workers at or below \$9.00 an hour			
	Number (1,000s)	Pctg. of total	Number (1,000s)	Pctg. among hourly workers in occupation	Pctg. among all hourly workers at or below \$9.00/hour	Pctg. of these workers who receive overtime pay, tips or commissions
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>	<b>18.9%</b>
Food preparation and serving	139	8.8	72	51.9	33.5	38.0
Farming, fishing and forestry	17	1.0	5	30.2	2.3	3.2
Sales and related occupations	147	9.3	38	25.5	17.4	7.0
Personal care and service	70	4.4	17	24.3	7.9	19.1
Building and grounds cleaning and maint.	70	4.4	12	17.5	5.6	6.7
Transportation and material moving	122	7.7	15	12.4	7.0	15.0
Health care support	56	3.6	7	11.6	3.0	9.9
Protective service	32	2.0	3	10.0	1.5	15.6
Education, training and library	55	3.4	4	7.7	1.9	2.4
Office and administrative support	243	15.3	18	7.4	8.4	4.9
Arts, design, entertainment, sports & media	21	1.3	2	7.4	.7	7.9
Production	166	10.5	12	7.3	5.6	7.2
Community and social service	27	1.7	1	3.5	.4	3.1
Construction and extraction	79	5.0	2	2.7	1.0	5.6
Installation, maintenance and repair	63	4.0	2	2.7	.8	14.6
Management, professional and technical [2]	279	17.6	6	2.2	2.9	11.8

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).

2. Includes management occupations; business and financial occupations; computer and mathematical science occupations; architectural and engineering occupations; life, physical and social science occupations; legal occupations; and health care practitioner and technical occupations. The estimated percentage of hourly workers at or below \$9.00 an hour in these groups ranged from 1.2 to 3.5 percent.

## Occupation

Among Minnesota occupations, food preparation and serving has the greatest prevalence of hourly workers at or below the minimum wage. This occupation also shows the highest percentage of workers receiving OTC among those paid the minimum wage or less.

- For August 2015 through July 2016, the proportion of hourly workers earning the minimum wage or less was highest by far in food preparation and serving, at 52 percent. The next highest percentages were in

farming, fishing and forestry (30 percent), sales and related occupations (25 percent), and personal care and service (24 percent).

- About 33 percent of all hourly workers paid the minimum wage or less were employed in food preparation and serving occupations; 17 percent were in sales and related occupations.
- Among hourly workers paid the minimum wage or less, the percentage receiving OTC was highest in food preparation and serving (38 percent) and personal care and service (19 percent).

**Figure 10** Hourly workers at or below the minimum wage by age and gender, Minnesota, August 2015 – July 2016 [1]

Age and gender	Hourly workers		Hourly workers at or below \$9.00 an hour		
	Number (1,000s)	Pctg. of total	Number (1,000s)	Pctg.	Pctg.
				among hourly workers in labor force group [2]	among all hourly workers at or below 9.00/hour
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>
15-19 years	115	7.2	62	54.3	28.9
20-24 years	222	14.0	56	25.4	26.2
25-54 years	955	60.2	77	8.1	35.7
55 years and older	293	18.5	20	6.8	9.2
<b>Men</b>	<b>767</b>	<b>48.4</b>	<b>88</b>	<b>11.4</b>	<b>40.7</b>
15-19 years	56	3.6	28	49.9	13.1
20-24 years	105	6.6	22	21.1	10.3
25-54 years	468	29.5	30	6.3	13.7
55 years and older	138	8.7	8	5.7	3.6
<b>Women</b>	<b>818</b>	<b>51.6</b>	<b>128</b>	<b>15.6</b>	<b>59.3</b>
15-19 years	58	3.7	34	58.6	15.9
20-24 years	117	7.4	34	29.3	15.9
25-54 years	487	30.7	47	9.7	22.0
55 years and older	155	9.8	12	7.8	5.6

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).

2. "Labor force group" is the total number of hourly workers in the row category.

## Age and gender

Young workers and women workers are more likely than others to be paid the minimum wage or less. Older workers are somewhat less likely than those in their middle years to be at or below the minimum wage.

- Among 15- to 19-year-old hourly workers, 54 percent earned \$9.00 an hour or less for August 2015 through July 2016, compared with 8 percent of 25- to 54-year-olds and 7 percent of those 55 and older.
- As a result, 15- to 19-year-olds comprised roughly 29 percent of all hourly workers at or below the minimum wage, even though they made up only 7 percent of the total hourly

workforce. Combining the two youngest groups, 15- to 24-year-olds made up 55 percent of all hourly workers paid the minimum or less.

- Although only 8 percent of 25- to 54-year-olds were paid the minimum wage or less, they made up 36 percent of all hourly workers at or below the minimum wage because they comprised a majority (60 percent) of hourly workers.
- Women were more likely than men to be paid the minimum wage or less (16 versus 11 percent). Because of this and the fact that they made up 52 percent of all hourly workers, women accounted for 59 percent of all hourly workers at or below the minimum.

**Figure 11 Hourly workers at or below the minimum wage by full-time/part-time status, gender and age, Minnesota, August 2015 – July 2016 [1]**

Full-time/part-time status, gender and age	Hourly workers		Hourly workers at or below \$9.00 an hour		
	Number (1,000s)	Pctg. of total	Number (1,000s)	Pctg. among hourly workers in labor force group [2]	Pctg. among all hourly workers at or below 9.00/hour
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>
<b>Full time [3]</b>	<b>1,102</b>	<b>69.6</b>	<b>70</b>	<b>6.4</b>	<b>32.7</b>
Men	606	38.2	33	5.4	15.2
Women	497	31.3	38	7.6	17.4
15-19 years	22	1.4	7	30.8	3.1
20-24 years	125	7.9	19	15.1	8.7
25-54 years	755	47.6	38	5.0	17.6
55 years and older	201	12.7	7	3.5	3.2
<b>Part time [3]</b>	<b>483</b>	<b>30.4</b>	<b>145</b>	<b>30.1</b>	<b>67.3</b>
Men	161	10.2	55	34.0	25.4
Women	321	20.3	90	28.1	41.9
15-19 years	93	5.9	56	59.8	25.8
20-24 years	97	6.1	38	38.7	17.4
25-54 years	200	12.6	39	19.5	18.1
55 years and older	92	5.8	13	14.0	6.0

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).

2. "Labor force group" is the total number of hourly workers in the row category.

3. Full-time workers are defined as those usually working 35 or more hours a week.

## Full-time/part-time status

Part-time workers (those working fewer than 35 hours a week) are much more likely than full-time workers to be paid the minimum wage or less.

- Among part-time hourly workers, 30 percent were paid \$9.00 an hour or less for August 2015 through July 2016, compared with 6 percent of full-time workers.

- Part-time workers made up 67 percent of all hourly workers at or below the minimum wage, even though they accounted for only 30 percent of the hourly workforce.
- Among full-time hourly workers, women were more likely than men to be paid the minimum wage or less (8 percent versus 5 percent). Among part-time workers, however, men were more likely than women to be at or below the minimum (34 versus 28 percent).

**Figure 12** Hourly workers at or below the minimum wage by education, gender and age, Minnesota, August 2015 – July 2016 [1]

Education, gender and age	Hourly workers		Hourly workers at or below \$9.00 an hour		
	Number (1,000s)	Pctg. of those 20 and older [2]	Number (1,000s)	Pctg. among	Pctg. among all
				hourly workers in labor force group [3]	hourly workers 20 and older at or below 9.00/hour [2]
<b>Total, 15 years and older</b>	<b>1,585</b>		<b>216</b>	<b>13.6%</b>	
<b>15-19 years</b>	<b>115</b>		<b>62</b>	<b>54.3</b>	
Less than high school	68		42	62.1	
High school only	24		10	42.0	
At least some college	23		10	44.3	
<b>20 years and older [2]</b>	<b>1,470</b>	<b>100.0%</b>	<b>153</b>	<b>10.4</b>	<b>100.0%</b>
<b>Less than high school</b>	<b>88</b>	<b>6.0</b>	<b>18</b>	<b>20.1</b>	<b>11.5</b>
Men	54	3.7	8	14.7	5.1
Women	34	2.3	10	28.6	6.3
20-24 years	10	.7	4	35.1	2.3
25-54 years	65	4.4	12	18.3	7.8
55 years and older	12	.8	2	17.0	1.4
<b>High school only</b>	<b>408</b>	<b>27.8</b>	<b>45</b>	<b>11.1</b>	<b>29.5</b>
Men	228	15.5	18	8.0	12.0
Women	180	12.2	27	15.0	17.5
20-24 years	54	3.7	13	24.6	8.7
25-54 years	257	17.5	24	9.4	15.7
55 years and older	97	6.6	8	8.1	5.1
<b>At least some college</b>	<b>974</b>	<b>66.3</b>	<b>91</b>	<b>9.3</b>	<b>59.0</b>
Men	428	29.1	33	7.8	21.8
Women	546	37.1	57	10.5	37.3
20-24 years	158	10.8	40	25.1	25.8
25-54 years	633	43.0	41	6.5	26.7
55 years and older	183	12.5	10	5.4	6.5

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).
2. Percentages regarding the composition of the total labor force and the composition of workers earning \$9.00 an hour or less (data columns 2 and 5) are limited to workers ages 20 and older because educational attainment among 15- to 19-year-olds is strongly associated with school enrollment status, which has its own association with hourly earnings.
3. "Labor force group" is the total number of hourly workers in the row category.

## Education

The least-educated workers are the most likely to be paid the minimum wage or less.

- Among hourly workers age 20 and older, those receiving the minimum wage or less accounted for 20 percent of workers with less than a high-school education, 11 percent of those with a high-school diploma and 9 percent of those with at least some college (see note 2 in Figure 12).
- Since workers with at least some college made up 66 percent of the hourly workforce age 20 and older, they accounted for 59 percent of all hourly workers at or below the minimum in this age group even though they were the least likely to be paid the minimum wage or less.
- Among 20-and-older workers, those without a high-school diploma made up 11 percent of workers at or below the minimum, even though they comprised only 6 percent of the hourly workforce.

**Figure 13** Hourly workers at or below the minimum wage by marital status, gender and age, Minnesota, August 2015 – July 2016 [1]

Marital status, gender and age	Hourly workers		Hourly workers at or below \$9.00 an hour		
	Number (1,000s)	Pctg. of those 20 and older [2]	Number (1,000s)	Pctg. among	Pctg. among all
				hourly workers in labor force group [3]	hourly workers 20 and older at or below 9.00/hour [2]
<b>Total, 15 years and older</b>	<b>1,585</b>		<b>216</b>	<b>13.6%</b>	
<b>15-19 years</b>	<b>115</b>		<b>62</b>	<b>54.3</b>	
Married, spouse present	~		~	[4]	
Other marital status	115		62	54.4	
<b>20 years and older [2]</b>	<b>1,470</b>	<b>100.0%</b>	<b>153</b>	<b>10.4</b>	<b>100.0%</b>
<b>Married, spouse present</b>	<b>735</b>	<b>50.0</b>	<b>46</b>	<b>6.3</b>	<b>30.2</b>
Men	341	23.2	15	4.4	9.7
Women	395	26.8	31	7.9	20.4
20-24 years	16	1.1	3	16.8	1.7
25-54 years	524	35.6	32	6.1	20.8
55 years and older	196	13.3	12	6.0	7.6
<b>Other marital status</b>	<b>734</b>	<b>50.0</b>	<b>107</b>	<b>14.6</b>	<b>69.8</b>
Men	369	25.1	45	12.1	29.1
Women	365	24.8	62	17.1	40.7
20-24 years	206	14.0	54	26.1	35.1
25-54 years	431	29.3	45	10.4	29.4
55 years and older	97	6.6	8	8.5	5.4

"~" = fewer than 500 workers.

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).
2. Percentages regarding the composition of the total labor force and the composition of workers earning \$9.00 an hour or less (data columns 2 and 5) are limited to workers ages 20 and older because of the low frequency of marriage among 15- to 19-year-olds.
3. "Labor force group" is the total number of hourly workers in the row category.
4. Estimate not given because of small sample size.

## Marital status

Unmarried workers are more likely to be paid the minimum wage or less than are married workers.

- Among hourly workers age 20 and older, those paid the minimum wage or less comprised 15 percent of those who were not married, as opposed to 6 percent of those who were married.
- Unmarried workers accounted for 70 percent of all hourly workers 20 and older who were paid the minimum wage or less, even though they made up only 50 percent of the 20-and-older hourly workforce.
- Unmarried women accounted for 41 percent of all hourly workers 20 and older who were at or below the minimum, even though they accounted for only 25 percent of the 20-and-older hourly workforce.

**Figure 14** Hourly workers at or below the minimum wage by poverty status, gender and age, Minnesota, August 2015 – July 2016 [1]

Poverty status, gender and age	Hourly workers		Hourly workers at or below \$9.00 an hour		
	Number (1,000s)	Pctg. of total	Number (1,000s)	Pctg.	Pctg.
				among hourly workers in labor force group [2]	among all hourly workers at or below 9.00/hour
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>
<b>At or below poverty line [3]</b>	<b>151</b>	<b>9.5</b>	<b>39</b>	<b>26.0</b>	<b>18.1</b>
Men	71	4.5	16	21.7	7.2
Women	79	5.0	24	29.8	10.9
15-19 years	15	.9	8	55.2	3.8
20-24 years	39	2.5	12	31.6	5.8
25-54 years	84	5.3	16	19.4	7.5
55 years and older	13	.8	2	18.5	1.1
<b>Above poverty line [3]</b>	<b>1,434</b>	<b>90.5</b>	<b>177</b>	<b>12.3</b>	<b>81.9</b>
Men	695	43.9	72	10.4	33.5
Women	739	46.6	104	14.1	48.4
15-19 years	100	6.3	54	54.2	25.2
20-24 years	183	11.5	44	24.1	20.4
25-54 years	871	55.0	61	7.0	28.2
55 years and older	280	17.7	18	6.3	8.1

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).

2. "Labor force group" is the total number of hourly workers in the row category.

3. The poverty line is established and published annually by the U.S. Census Bureau. It depends on household size and is applied to total household income. The 2014 poverty line for a family of four, for example, was \$24,230. For statistical purposes, the poverty status of each household member is that of the household. Official poverty lines are available at [www.census.gov/hhes/www/poverty/data/threshld](http://www.census.gov/hhes/www/poverty/data/threshld).

## Poverty status

Workers paid the minimum wage or less are more prevalent among those in poverty than among other hourly workers.

- Workers at or below the minimum wage accounted for 26 percent of hourly workers

living in households below the poverty line, as opposed to 12 percent of those in households above the poverty line.

- While workers in households below the poverty line made up 10 percent of the hourly workforce, they accounted for 18 percent of those paid the minimum wage or less.

**Figure 15** Hourly workers at or below the minimum wage by metropolitan residence, gender and age, Minnesota, August 2015 – July 2016 [1]

Metropolitan residence, gender and age	Hourly workers		Hourly workers at or below \$9.00 an hour		
			Number (1,000s)	Pctg. among hourly workers in labor force group [2]	Pctg. among all hourly workers at or below 9.00/hour
	Number (1,000s)	Pctg. of total		Number (1,000s)	
<b>Total, 15 years and older</b>	<b>1,585</b>	<b>100.0%</b>	<b>216</b>	<b>13.6%</b>	<b>100.0%</b>
<b>Metropolitan [3]</b>	<b>1,142</b>	<b>72.1</b>	<b>146</b>	<b>12.8</b>	<b>67.8</b>
Men	554	34.9	61	11.1	28.4
Women	588	37.1	85	14.4	39.4
15-19 years	80	5.0	41	51.9	19.1
20-24 years	165	10.4	40	24.3	18.6
25-54 years	697	44.0	53	7.6	24.5
55 years and older	201	12.7	12	6.0	5.6
<b>Nonmetropolitan [3]</b>	<b>443</b>	<b>27.9</b>	<b>70</b>	<b>15.7</b>	<b>32.2</b>
Men	213	13.5	27	12.4	12.3
Women	230	14.5	43	18.7	19.9
15-19 years	35	2.2	21	60.0	9.8
20-24 years	58	3.6	16	28.5	7.6
25-54 years	258	16.3	24	9.4	11.2
55 years and older	92	5.8	8	8.4	3.6

1. Estimated by DLI Research and Statistics with data from the Current Population Survey, conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Details in Appendix B. The full effective minimum-wage level for the period concerned was the Minnesota level of \$9.00 an hour (see Figure 1 and p. 2 (Data and estimation technique)).

2. "Labor force group" is the total number of hourly workers in the row category.

3. Metropolitan areas include the following metropolitan statistical areas (MSAs) defined by the Census Bureau: the Minneapolis-St. Paul-Bloomington MSA (Minnesota portion: Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright Counties); the Duluth MSA (Minnesota portion: St. Louis County only; Carlton County not in sample); the Fargo MSA (Minnesota portion: Clay County); and the St. Cloud MSA (Benton and Stearns Counties). The Rochester and Grand Forks MSAs are not in the sample, nor is the Houston County portion of the La Crosse MSA.

## Metropolitan residence

Workers in nonmetropolitan Minnesota are more likely to be paid the minimum wage or less than are those in the state's metropolitan areas (see note 3 in Figure 15).

- Workers paid the minimum wage or less accounted for 16 percent of hourly workers in nonmetropolitan Minnesota, as opposed to 13 percent in metropolitan areas.
- Despite this difference, because metropolitan Minnesota made up 72 percent of the state's hourly workforce, it accounted for 68 percent

of the state's hourly workers at or below the minimum wage.

- Nonmetropolitan areas showed more of a gender difference than did metropolitan areas with regard to minimum-wage status. For nonmetropolitan areas, the proportions of hourly workers at or below the minimum were 19 percent for women and 12 percent for men; for metropolitan areas, these proportions were 14 and 11 percent, respectively.

# Appendix A

## Minnesota minimum-wage statute

The following is Minnesota Statutes §§177.23, 177.24 and 177.28 as of December 2015.<sup>27</sup>

### 177.23 Definitions.

Subdivision 1. **Scope.** Unless the language or context clearly indicates that a different meaning is intended, the following terms, for the purposes of sections 177.21 to 177.35, have the meanings given to them in this section.

Subd. 2. **Department.** "Department" means the Department of Labor and Industry.

Subd. 3. **Commissioner.** "Commissioner" means the commissioner of labor and industry or authorized designee or representative.

Subd. 4. **Wage.** "Wage" means compensation due to an employee by reason of employment, payable in:

- (1) legal tender of the United States;
- (2) check on banks convertible into cash on demand at full face value;
- (3) except for instances of written objection to the employer by the employee, direct deposit to the employee's choice of demand deposit account; or
- (4) an electronic fund transfer to a payroll card account that meets all of the requirements of section 177.255, subject to allowances permitted by rules of the department under section 177.28.

Subd. 5. **Employ.** "Employ" means to permit to work.

Subd. 6. **Employer.** "Employer" means any individual, partnership, association, corporation, business trust, or any person or group of persons acting directly or indirectly in the interest of an employer in relation to an employee.

Subd. 7. **Employee.** "Employee" means any individual employed by an employer but does not include:

- (1) two or fewer specified individuals employed at any given time in agriculture on a farming unit or operation who are paid a salary;
- (2) any individual employed in agriculture on a farming unit or operation who is paid a salary greater than the individual would be paid if the individual worked 48 hours at the state minimum wage plus 17 hours at 1-1/2 times the state minimum wage per week;
- (3) an individual under 18 who is employed in agriculture on a farm to perform services other than corn detasseling or hand field work when one or both of that minor hand field worker's parents or physical custodians are also hand field workers;
- (4) for purposes of section 177.24, an individual under 18 who is employed as a corn detasseler;
- (5) any staff member employed on a seasonal basis by an organization for work in an organized resident or day camp operating under a permit issued under section 144.72;
- (6) any individual employed in a bona fide executive, administrative, or professional capacity, or a salesperson who conducts no more than 20 percent of sales on the premises of the employer;
- (7) any individual who renders service gratuitously for a nonprofit organization;

<sup>27</sup> Taken from the Minnesota Office of the Revisor of Statutes website, [www.revisor.mn.gov/statutes/?id=177](http://www.revisor.mn.gov/statutes/?id=177), Dec. 30, 2015.

(8) any individual who serves as an elected official for a political subdivision or who serves on any governmental board, commission, committee or other similar body, or who renders service gratuitously for a political subdivision;

(9) any individual employed by a political subdivision to provide police or fire protection services or employed by an entity whose principal purpose is to provide police or fire protection services to a political subdivision;

(10) any individual employed by a political subdivision who is ineligible for membership in the Public Employees Retirement Association under section 353.01, subdivision 2b, clause (1), (2), (4), or (9), item (i);

(11) any driver employed by an employer engaged in the business of operating taxicabs;

(12) any individual engaged in babysitting as a sole practitioner;

(13) for the purpose of section 177.25, any individual employed on a seasonal basis in a carnival, circus, fair, or ski facility;

(14) any individual under 18 working less than 20 hours per workweek for a municipality as part of a recreational program;

(15) any individual employed by the state as a natural resource manager 1, 2, or 3 (conservation officer);

(16) any individual in a position for which the United States Department of Transportation has power to establish qualifications and maximum hours of service under United States Code, title 49, section 31502;

(17) any individual employed as a seafarer. The term "seafarer" means a master of a vessel or any person subject to the authority, direction, and control of the master who is exempt from federal overtime standards under United States Code, title 29, section 213(b)(6), including but not limited to pilots, sailors, engineers, radio operators, firefighters, security guards, pursers, surgeons, cooks, and stewards;

(18) any individual employed by a county in a single-family residence owned by a county home school as authorized under section 260B.060 if the residence is an extension facility of that county home school, and if the individual as part of the employment duties resides at the residence for the purpose of supervising children as defined by section 260C.007, subdivision 4; or

(19) nuns, monks, priests, lay brothers, lay sisters, ministers, deacons, and other members of religious orders who serve pursuant to their religious obligations in schools, hospitals, and other nonprofit institutions operated by the church or religious order.

**Subd. 8. Occupation.** "Occupation" means any occupation, service, trade, business, industry, or branch or group of industries or employment or class of employment in which employees are gainfully employed.

**Subd. 9. Gratuities.** "Gratuities" means monetary contributions received directly or indirectly by an employee from a guest, patron, or customer for services rendered and includes an obligatory charge assessed to customers, guests or patrons which might reasonably be construed by the guest, customer, or patron as being a payment for personal services rendered by an employee and for which no clear and conspicuous notice is given by the employer to the customer, guest, or patron that the charge is not the property of the employee.

**Subd. 10. On-site employee; hours worked.** With respect to any caretaker, manager, or other on-site employee of a residential building or buildings whose principal place of residence is in the residential building, including a caretaker, manager, or other on-site employee who receives a principal place of residence as full or partial compensation for duties performed for an employer, the term "hours worked" includes time when the caretaker, manager, or other on-site employee is performing any duties of employment, but does not mean time when the caretaker, manager, or other on-site employee is on the premises and available to perform duties of employment and is not performing duties of employment.

**Subd. 11. Companionship services; hours.**

With respect to an individual who is (1) employed to provide companionship services to individuals who, because of age or infirmity, are unable to care for their own needs; (2) employed to stay overnight in the home of such an aged or infirm individual; and (3) paid the minimum wage or more for at least four hours associated with the overnight stay, the term "hours" for the purposes of requiring the payment of minimum wages and overtime premiums under sections 177.24 and 177.25, shall not include nighttime hours, from 10:00 p.m. to 9:00 a.m., up to a total of eight hours per night, during which the employee is available to perform duties for the aged or infirm individual, but is not in fact performing such duties and is free to sleep and otherwise engage in normal private pursuits in the aged or infirm individual's home. For the purposes of this subdivision, the term "companionship services" is defined in Code of Federal Regulations, title 29, sections 552.6 and 552.106 as of March 1, 1984.

History: 1973 c 721 s 3; 1974 c 406 s 88; 1975 c 399 s 1; 1977 c 369 s 1; 1978 c 586 s 1; 1978 c 731 s 1; 1979 c 281 s 1; 1980 c 415 s 1; 1982 c 424 s 46-48; 1982 c 625 s 14; 1983 c 60 s 1; 1983 c 122 s 1; 1984 c 614 s 1; 1984 c 628 art 4 s 1; 1Sp1985 c 13 s 274,275; 1986 c 390 s 2; 1986 c 444; 1990 c 418 s 1; 1992 c 464 art 1 s 24; 1999 c 139 art 4 s 2; 2001 c 178 art 1 s 44; 2005 c 10 art 1 s 33; 2005 c 158 s 1,4; 2007 c 87 s 1; 2008 c 168 s 1; 2015 c 21 art 1 s 109

**177.24 Payment of minimum wages.****Subdivision 1. Amount.**

(a) For purposes of this subdivision, the terms defined in this paragraph have the meanings given them.

(1) "Large employer" means an enterprise whose annual gross volume of sales made or business done is not less than \$500,000 (exclusive of excise taxes at the retail level that are separately stated) and covered by the Minnesota Fair Labor Standards Act, sections 177.21 to 177.35.

(2) "Small employer" means an enterprise whose annual gross volume of sales made or business

done is less than \$500,000 (exclusive of excise taxes at the retail level that are separately stated) and covered by the Minnesota Fair Labor Standards Act, sections 177.21 to 177.35.

(b) Except as otherwise provided in sections 177.21 to 177.35:

(1) every large employer must pay each employee wages at a rate of at least:

(i) \$8.00 per hour beginning August 1, 2014;

(ii) \$9.00 per hour beginning August 1, 2015;

(iii) \$9.50 per hour beginning August 1, 2016; and

(iv) the rate established under paragraph (f) beginning January 1, 2018; and

(2) every small employer must pay each employee at a rate of at least:

(i) \$6.50 per hour beginning August 1, 2014;

(ii) \$7.25 per hour beginning August 1, 2015;

(iii) \$7.75 per hour beginning August 1, 2016; and

(iv) the rate established under paragraph (f) beginning January 1, 2018.

(c) Notwithstanding paragraph (b), during the first 90 consecutive days of employment, an employer may pay an employee under the age of 20 years a wage of at least:

(1) \$6.50 per hour beginning August 1, 2014;

(2) \$7.25 per hour beginning August 1, 2015;

(3) \$7.75 per hour beginning August 1, 2016; and

(4) the rate established under paragraph (f) beginning January 1, 2018.

No employer may take any action to displace an employee, including a partial displacement through a reduction in hours, wages, or

employment benefits, in order to hire an employee at the wage authorized in this paragraph.

(d) Notwithstanding paragraph (b), an employer that is a "hotel or motel," "lodging establishment," or "resort" as defined in Minnesota Statutes 2012, section 157.15, subdivisions 7, 8, and 11, must pay an employee working under a contract with the employer that includes the provision by the employer of a food or lodging benefit, if the employee is working under authority of a summer work travel exchange visitor program (J) nonimmigrant visa, a wage of at least:

- (1) \$7.25 per hour beginning August 1, 2014;
- (2) \$7.50 per hour beginning August 1, 2015;
- (3) \$7.75 per hour beginning August 1, 2016; and
- (4) the rate established under paragraph (f) beginning January 1, 2018.

No employer may take any action to displace an employee, including a partial displacement through a reduction in hours, wages, or employment benefits, in order to hire an employee at the wage authorized in this paragraph.

(e) Notwithstanding paragraph (b), a large employer must pay an employee under the age of 18 at a rate of at least:

- (1) \$6.50 per hour beginning August 1, 2014;
- (2) \$7.25 per hour beginning August 1, 2015;
- (3) \$7.75 per hour beginning August 1, 2016; and
- (4) the rate established under paragraph (f) beginning January 1, 2018.

No employer may take any action to displace an employee, including a partial displacement through a reduction in hours, wages, or employment benefits, in order to hire an

employee at the wage authorized in this paragraph.

(f) No later than August 31 of each year, beginning in 2017, the commissioner shall determine the percentage increase in the rate of inflation, as measured by the implicit price deflator, national data for personal consumption expenditures as determined by the United States Department of Commerce, Bureau of Economic Analysis during the 12-month period immediately preceding that August or, if that data is unavailable, during the most recent 12-month period for which data is available. The minimum wage rates in paragraphs (b), (c), (d), and (e) are increased by the lesser of: (1) 2.5 percent, rounded to the nearest cent; or (2) the percentage calculated by the commissioner, rounded to the nearest cent. A minimum wage rate shall not be reduced under this paragraph. The new minimum wage rates determined under this paragraph take effect on the next January 1.

(g)(1) No later than September 30 of each year, beginning in 2017, the commissioner may issue an order that an increase calculated under paragraph (f) not take effect. The commissioner may issue the order only if the commissioner, after consultation with the commissioner of management and budget, finds that leading economic indicators, including but not limited to projections of gross domestic product calculated by the United States Department of Commerce, Bureau of Economic Analysis; the Consumer Confidence Index issued by the Conference Board; and seasonally adjusted Minnesota unemployment rates, indicate the potential for a substantial downturn in the state's economy. Prior to issuing an order, the commissioner shall also calculate and consider the ratio of the rate of the calculated change in the minimum wage rate to the rate of change in state median income over the same time period used to calculate the change in wage rate. Prior to issuing the order, the commissioner shall hold a public hearing, notice of which must be published in the State Register, on the department's Web site, in newspapers of general circulation, and by other means likely to inform interested persons of the hearing, at least ten days prior to the hearing. The commissioner must allow interested persons to submit written comments to the commissioner

before the public hearing and for 20 days after the public hearing.

(2) The commissioner may in a year subsequent to issuing an order under clause (1), make a supplemental increase in the minimum wage rate in addition to the increase for a year calculated under paragraph (f). The supplemental increase may be in an amount up to the full amount of the increase not put into effect because of the order. If the supplemental increase is not the full amount, the commissioner may make a supplemental increase of the difference, or any part of a difference, in a subsequent year until the full amount of the increase ordered not to take effect has been included in a supplemental increase. In making a determination to award a supplemental increase under this clause, the commissioner shall use the same considerations and use the same process as for an order under clause (1). A supplemental wage increase is not subject to and shall not be considered in determining whether a wage rate increase exceeds the limits for annual wage rate increases allowed under paragraph (f).

**Subd. 1a. [Expired]**

**Subd. 2. Gratuities not applied.** No employer may directly or indirectly credit, apply, or utilize gratuities towards payment of the minimum wage set by this section or federal law.

**Subd. 3. Sharing of gratuities.** For purposes of this chapter, any gratuity received by an employee or deposited in or about a place of business for personal services rendered by an employee is the sole property of the employee. No employer may require an employee to contribute or share a gratuity received by the employee with the employer or other employees or to contribute any or all of the gratuity to a fund or pool operated for the benefit of the employer or employees. This section does not prevent an employee from voluntarily sharing gratuities with other employees. The agreement to share gratuities must be made by the employees without employer coercion or participation, except that an employer may:

(1) upon the request of employees, safeguard gratuities to be shared by employees and

disburse shared gratuities to employees participating in the agreement;

(2) report the amounts received as required for tax purposes; and

(3) post a copy of this section for the information of employees.

The commissioner may require the employer to pay restitution in the amount of the gratuities diverted. If the records maintained by the employer do not provide sufficient information to determine the exact amount of gratuities diverted, the commissioner may make a determination of gratuities diverted based on available evidence and mediate a settlement with the employer.

**Subd. 4. Unreimbursed expenses deducted.**

Deductions, direct or indirect, from wages or gratuities not authorized by this subdivision may only be taken as authorized by sections 177.28, subdivision 3, 181.06, and 181.79. Deductions, direct or indirect, for up to the full cost of the uniform or equipment as listed below, may not exceed \$50 or, if a motor vehicle dealer licensed under section 168.27 furnishes uniforms or clothing described in clause (1) on an ongoing basis, may not exceed the lesser of 50 percent of the dealer's reasonable expense or \$25 per month, including nonhome maintenance. No deductions, direct or indirect, may be made for the items listed below which when subtracted from wages would reduce the wages below the minimum wage:

(1) purchased or rented uniforms or specially designed clothing required by the employer, by the nature of the employment, or by statute as a condition of employment, which is not generally appropriate for use except in that employment;

(2) purchased or rented equipment used in employment, except tools of a trade, a motor vehicle, or any other equipment which may be used outside the employment;

(3) consumable supplies required in the course of that employment;

(4) travel expenses in the course of employment except those incurred in traveling to and from the employee's residence and place of employment.

**Subd. 5. Expense reimbursement.** An employer, at the termination of an employee's employment, must reimburse the full amount deducted, directly or indirectly, for any of the items listed in subdivision 4, except for a motor vehicle dealer's rental and maintenance deduction for uniforms or clothing. When reimbursement is made, the employer may require the employee to surrender any existing items for which the employer provided reimbursement.

History: 1973 c 721 s 4; 1976 c 165 s 1; 1977 c 183 s 1; 1977 c 369 s 2; 1979 c 281 s 2; 1981 c 87 s 1,2; 1984 c 628 art 4 s 1; 1Sp1985 c 13 s 276-278; 1986 c 444; 1987 c 324 s 1; 1987 c 384 art 2 s 45; 1990 c 418 s 2-4; 1996 c 305 art 1 s 49,50; 2Sp1997 c 1 s 1; 2005 c 44 s 1; 2009 c 69 s 1,2; 2011 c 105 s 1; 2014 c 166 s 2

### 177.28 Power to make rules.

**Subdivision 1. General authority.** The commissioner may adopt rules, including definitions of terms, to carry out the purposes of sections 177.21 to 177.44, to prevent the circumvention or evasion of those sections, and to safeguard the minimum wage and overtime rates established by sections 177.24 and 177.25.

**Subd. 2. [Repealed, 1988 c 629 s 64]**

**Subd. 3. Rules required.** The commissioner shall adopt rules under sections 177.21 to 177.35 defining and governing:

- (1) salespeople who conduct no more than 20 percent of their sales on the premises of the employer;
- (2) allowances as part of the wage rates for board, lodging, and other facilities or services furnished by the employer and used by the employees;
- (3) bonuses;

(4) part-time rates;

(5) special pay for special or extra work;

(6) procedures in contested cases;

(7) other facilities or services furnished by employers and used by employees; and

(8) other special items usual in a particular employer-employee relationship.

**Subd. 4. [Repealed, 1996 c 305 art 1 s 52]**

**Subd. 5. Rules regarding people with disabilities.** In order to prevent curtailment of opportunities for employment, avoid undue hardship, and safeguard the minimum wage rates under sections 177.24 and 177.25, the department shall also issue rules providing for the employment of disabled workers at wages lower than the wage rates applicable under sections 177.24 and 177.25, under permits and for periods of time as specified therein. The rules must provide for the employment of learners and apprentices at wages lower than the wage rates applicable under sections 177.24 and 177.25, under permits and subject to limitations on number, proportion, length of learning period, occupations, and other conditions as the department may prescribe. The rules must provide that where a disabled person is performing or is being considered for employment where work must be performed which is equal to work performed by a nondisabled person, the disabled person must be paid the same wage as a nondisabled person with similar experience and skill.

**Subd. 6. Administrative Procedure Act to apply.** The rules are subject to the provisions of chapter 14.

History: 1973 c 721 s 8; 1976 c 165 s 2; 1977 c 369 s 3; 1982 c 424 s 50; 1984 c 628 art 4 s 1; 1984 c 636 s 1; 1Sp1985 c 13 s 280; 1986 c 444; 2005 c 56 s 1; 2007 c 135 art 3 s 9

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# Appendix B

## Data and estimation technique

This appendix describes the estimation process used for Figures 6 through 15 — those figures where estimation is used. The descriptions are at a general level. More detail is available upon request from the Research and Statistics unit of the Department of Labor and Industry.

The statistics in Figures 6 through 15 are derived from the Current Population Survey (CPS), a monthly household survey conducted by the U.S. Census for the U.S. Bureau of Labor Statistics. The estimation procedures are used to reduce the sampling error that would result from small sample size if the numbers were computed directly from the Minnesota data. Estimates with sufficient statistical reliability cannot be directly calculated from the Minnesota data for any but the broadest categories in this report.

**Figure 6** — The percentage of Minnesota hourly workers at or below the full effective minimum wage for each year was estimated using Minnesota data for August 1997 through July 2015. A statistical relationship was estimated between the hourly wage level at different points in the lower end of the wage distribution and the percentage of workers at or below that wage level.<sup>28</sup> In this estimation, the hourly wage level was expressed as a percentage of the overall state median hourly wage.<sup>29</sup> This statistical relationship was then used to estimate the percentage of hourly workers at or below the effective minimum wage for each year, given the level of the minimum as a percentage of the median hourly wage for that year. For the year August 2015 through July 2016, the median hourly wage was projected from prior years.

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<sup>28</sup> Only those wage levels were used that were at least as great as both the Minnesota and U.S. full minimum-wage levels for the year in question.

<sup>29</sup> The median hourly wage level came from the Occupational Employment Statistics survey, conducted by the U.S. Bureau of Labor Statistics.

Minnesota's total number of hourly workers at or below the effective minimum wage for each year was estimated by applying the percentage at or below the minimum (estimated as just described) to the state's total number of hourly workers. The latter was estimated because it fluctuates in the sample data from year to year. This was done by first estimating the trend in the number of hourly workers as a percentage of all wage-and-salary workers and then applying the trend to the calculated number of wage-and-salary workers for each year. The total number of wage-and-salary workers for the year August 2015 through July 2016 was projected from prior years.

**Figure 7** — The percentage of hourly workers at or below the minimum wage who received overtime pay, tips or commissions (OTC) each year was estimated with a similar statistical technique to that used in Figure 6. The difference was that the outcome variable was the percentage receiving OTC among hourly workers at or below the minimum wage, rather than the percentage of hourly workers at or below the minimum. The number of hourly workers at or below the minimum who received OTC for each year was estimated by applying the estimated percentage receiving OTC among those at or below the minimum to the estimated number of workers at or below the minimum from Figure 6.

**Figures 8 and 9** — Minnesota's total number of hourly workers for August 2015 through July 2016 was estimated as described for Figure 6. The total number of hourly workers by industry or occupation was estimated by applying Minnesota's percentage of hourly workers by industry or occupation for August 2010 through July 2015 to this estimated total. The five-year percentage was used to reduce sampling variation.

The total number of hourly workers at or below the 2015 minimum wage of \$9.00 was the number estimated for Figure 6.

The number of hourly workers at or below the minimum for each industry or occupation was estimated using a combination of Minnesota and U.S. data. First, for each industry and occupation, for August 2010 through July 2015, DLI estimated the proportion of U.S. hourly workers whose hourly wage — expressed as a percentage of the overall state median hourly wage for the year and month when the sample worker was interviewed (“wage index”) — was at or below the wage index value represented by Minnesota’s 2015 minimum of \$9.00 as a percentage of Minnesota’s projected median hourly wage for August 2015 to July 2016.<sup>30</sup> Because workers at or below the Minnesota minimum make up a larger proportion of the U.S. hourly workforce than of the Minnesota hourly workforce, the U.S. estimates were scaled proportionately downward to derive Minnesota estimates, in such a way that the sum of the estimated numbers for the different industries and occupations was equal to Minnesota’s estimated total number of hourly workers at or below the minimum.

A similar technique was used to estimate the number of hourly workers at or below the minimum wage who received overtime pay, tips or commissions by industry or occupation.

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<sup>30</sup> This was done using a technique similar to that used for estimating the proportion of Minnesota’s hourly workers receiving the minimum wage or less in Figure 6. That is, for each industry and occupation, a statistical relationship was estimated between the hourly wage at different points in the lower end of the wage distribution and the percentage of workers at or below that wage. In this estimation, the hourly wage was expressed as a percentage of the overall state median hourly wage for the year and month when the sample worker was interviewed (“wage index”). For estimating the statistical relationship, only those cases were used where the wage represented by the wage index was at least as great as both the federal minimum wage and the applicable state minimum wage. The statistical relationship was then used to estimate, for each industry and occupation, the percentage of U.S. hourly workers at or below the wage index value represented by Minnesota’s 2015 minimum of \$9.00 as a percentage of Minnesota’s projected median hourly wage for August 2015 to July 2016.

Because of issues related to Minnesota’s prohibition of a lower minimum wage for tipped employees, the estimates for eating and drinking places (in Figure 8) and for food preparation and serving occupations (in Figure 9) were benchmarked to numbers estimated solely from Minnesota data, and the estimates for the remaining industry and occupation groups were correspondingly adjusted.

**Figures 10 to 15** — The total numbers of hourly workers and of hourly workers at or below the minimum wage for August 2015 through July 2016 were computed as described for the preceding figures.

The total number of hourly workers for each group in each figure (e.g., 15- to 19-year-old males in Figure 10) was estimated with the same technique as for industries and occupations in Figures 8 and 9, using Minnesota data only. That is, the total number of hourly workers for each group (e.g., 15- to 19-year-old males in Figure 10) was estimated by applying the percentage of hourly workers in each group for August 2010 through July 2015 to the estimated total number of hourly workers for August 2015 to July 2016. The five-year percentage was used to reduce sampling variation.

To produce estimates of the numbers of hourly workers at or below the minimum wage for the different subgroups so that they would add up across Figures 10 to 15, it was necessary to first estimate the numbers of hourly workers in all the “mini-cells” defined by all the categories in these figures.<sup>31</sup> This was done with both Minnesota and U.S. data for August 2010 through July 2015 in such a way that the totals for the categories in each figure (e.g., 15- to 19-year-old males in Figure 10) were equal to the totals previously estimated with Minnesota data only.

The number of hourly workers at or below the minimum in each mini-cell was estimated using a combination of Minnesota and U.S. data. First, for each mini-cell, for August 2010 through July 2015, we estimated the proportion of U.S.

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<sup>31</sup> An example of one these “mini-cells” is 25- to 54-year-old women, employed part-time, with some college, married, above the poverty line, in metropolitan areas.

hourly workers whose hourly wage — expressed as a percentage of the overall state median hourly wage for the year and month when the sample worker was interviewed (“wage index”) — was at or below the wage index value represented by Minnesota’s 2015 minimum of \$9.00 as a percentage of Minnesota’s projected median hourly wage for August 2015 to July 2016.<sup>32</sup> Again, since workers at or below the Minnesota minimum make up a larger proportion of the U.S. hourly workforce than of the Minnesota hourly workforce, the U.S. estimates were scaled proportionately downward to derive Minnesota estimates, in such a way that the total number of hourly workers at or below Minnesota’s minimum was equal to the previously estimated total number. The numbers of hourly workers at or below the minimum in the categories in Figures 10 to 15 were then

derived by adding across the appropriate mini-cells.

An examination of the data reveals a major difference between Minnesota and the U.S. regarding the metropolitan-nonmetropolitan difference in the proportion of hourly workers paid the minimum wage or less. For the U.S., the metro-nonmetro difference is fairly small, but for Minnesota, the percentage at or below the minimum is substantially larger in nonmetro than in metro areas. Therefore, the estimates for metro and nonmetro areas were benchmarked to numbers estimated solely from Minnesota data. This was accomplished by adjusting the estimated numbers of workers at or below the minimum in the mini-cells for metro and nonmetro areas.

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<sup>32</sup> In this process, only those sample cases were used where the wage represented by the wage index was at least as great as both the federal minimum wage and the applicable state minimum wage.