

Minnesota Minimum-Wage Report, 2009

by
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Executive summary

This report, part of an occasional series, describes trends in Minnesota's population of hourly minimum-wage workers since 1997 and presents characteristics of these workers for August 2008 to July 2009. **“Minimum-wage workers” are defined here as those earning the effective full minimum wage (see below) or less at their main job, excluding overtime pay, tips and commissions.**¹ The effective minimum is the higher of the applicable state and federal levels.

This report deals with minimum-wage workers within the population of all hourly workers age 15 years and older in Minnesota. The statistics 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 focus of this report on hourly workers is a change from previous reports, which included both hourly and salaried workers. This change is made partly because of data issues concerning salaried workers in the CPS² and partly because many salaried workers are exempt from the federal and state minimum-wage laws as executive, administrative and professional employees. Because of this change, estimates differ from those in previous reports.

From September 1997 through July 2005, Minnesota's full minimum wage was \$5.15 an hour; it rose to \$6.15 in August 2005 and has remained at that level since. The full federal minimum was \$5.15 an hour from September 1997 through July 23, 2007, after which it rose

in three increments to \$7.25 as of July 24, 2009. 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. Since August 2005, that minimum has been \$5.25 for employers with annual revenues less than \$625,000. For workers younger than age 20, both federal and state law provide a lower minimum during the first 90 consecutive days of employment. The Minnesota “youth minimum” has been \$4.90 since August 2005.³

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.⁴

The following are the report's major findings:

Trends in minimum-wage population

- Because of the increase in the federal minimum wage to \$7.25 in July 2009, the proportion of Minnesota's hourly workers being paid that amount or less rose to an estimated 4.5 percent for August 2009 to July 2010.
- For August 2008 to July 2009, when the effective minimum was the federal level of \$6.55,⁵ an estimated 3.1 percent of Minnesota's hourly workers, or 48,000, were paid that amount or less.
- When the minimum wage has been stationary, the number and percentage of hourly workers earning the minimum or less has fallen because of increases in general wage levels.

¹ Overtime pay, tips and commissions are excluded from hourly pay in the data used. Also, tips are excluded from wages for purposes of Minnesota's minimum-wage law (see Appendix A). Workers may have reported wages less than the full effective minimum because they 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 data errors may occur. This report does not attempt to distinguish among these situations. The term “minimum-wage worker” as used in this report has no implications regarding the degree of compliance with the minimum-wage law.

² See p. 2.

³ The federal youth minimum has been \$4.25 since September 1997.

⁴ Minnesota Statutes §177.24, subd. 2 (Appendix A).

⁵ See p. 2 (Data and estimation technique).

- The percentage of hourly minimum-wage workers receiving additional pay in the form of overtime pay, tips and commissions tends to be relatively high when the effective minimum is low relative to overall wage levels, and vice versa.
- The proportion of Minnesota's hourly minimum-wage workers receiving additional pay in the form of overtime pay, tips and commissions was an estimated 46 percent for August 2008 to July 2009, and 37 percent for August 2009 to July 2010.

Characteristics of minimum-wage workers for August 2008 to July 2009

The following estimates pertain to the period August 2008 to July 2009, during which time the effective full minimum wage in Minnesota was the federal level of \$6.55 an hour and an estimated 3.1 percent of the state's hourly workers earned that amount or less.

Industry

- Among major industries, the proportion of hourly workers earning the minimum wage or less was highest by far in eating and drinking places, at 22 percent. About 54 percent of all hourly minimum-wage workers were employed in eating and drinking places.
- Among industries, the percentage of hourly minimum-wage workers with additional earnings from overtime, tips or commissions (OTC) was highest in eating and drinking places (69 percent) and hotels, motels and other accommodation (57 percent).

Occupation

- Among major occupation groups, the proportion of hourly workers earning the minimum wage or less was highest by far in food preparation and serving, at 20 percent. About 55 percent of all hourly minimum-wage workers were in this occupation group.
- Among occupations, the percentage of hourly minimum-wage workers with OTC was

highest in food preparation and serving, at 68 percent.

Age and gender

- Among 15- to 19-year-old hourly workers, 13 percent earned \$6.55 an hour or less, compared with 1.5 percent of 25- to 54-year-olds and 1.6 percent of those 55 and older.
- Sixty-three percent of all hourly minimum-wage workers were 15 to 24 years old.
- Among female hourly workers, 3.7 percent earned the minimum wage or less, compared with 2.5 percent of men.

Work status

- Among part-time hourly workers, 7.3 percent earned the minimum or less, compared with 1.3 percent of full-time hourly workers.
- Part-time workers made up 72 percent of all hourly minimum-wage workers, while accounting for only 31 percent of the hourly workforce.

Education

- Among hourly workers with less than a high-school education, 9.9 percent were minimum-wage workers, compared with 2.5 percent for those with a high-school degree and 2.2 for those with at least some college.
- Those without a high-school degree made up 36 percent of all hourly minimum-wage workers, even though they comprised only 11 percent of the hourly workforce.

Marital status

- Minimum-wage workers comprised 4.8 percent of unmarried hourly workers, as opposed to 1.2 for those who were married.

Poverty status

- Minimum-wage workers accounted for 6.4 percent of hourly workers living below the poverty line, as opposed to 2.8 percent of those above the poverty line.

- Workers below the poverty line made up 19 percent of all hourly minimum-wage workers, while accounting for only 9 percent of all hourly workers.

Metropolitan residence

- There was little difference between the prevalence of hourly minimum-wage workers in metropolitan and nonmetropolitan Minnesota. This result is sensitive to the level of the minimum wage (see pp. 12, 19).

Introduction

The federal minimum wage was enacted in 1938 as a means of raising the earnings of low-wage workers. From its initial level of 25 cents, it has been raised several times. It stood at \$5.15 an hour from September 1997 through July 23, 2007, after which it was raised in three increments on July 24 of 2007, 2008 and 2009 to its current level of \$7.25. 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 most of the labor force.

With some exceptions, Minnesota's minimum wage has risen over the years with the federal minimum. The state's "full minimum" was equal to its federal counterpart from September 1997 until August 2005, when it was raised to \$6.15, where it currently stands.⁶ The effective minimum is the higher of the applicable state and federal levels. Thus, for nonexempt workers in Minnesota, the current effective minimum is the federal minimum of \$7.25.

As policymakers consider the minimum wage, a number of questions arise. How many workers are paid the minimum wage or less? What are the characteristics and circumstances of these workers? Are they relatively young or old? What are their family status and family income? In what occupations and industries are they most likely to be found?

This report, part of an occasional series, statistically describes Minnesota's population of hourly minimum-wage workers.⁷ It first presents trends in the state's population of hourly minimum-wage workers since August 1997. It then presents characteristics of minimum-wage workers for August 2008 to July 2009.

"Minimum-wage workers" are defined for this purpose as those earning the effective full minimum or less at their main job, excluding

⁶ As described below, lower minimums apply in certain situations.

⁷ The reason for the limitation to hourly workers is described below.

overtime pay, tips and commissions.⁸

Appendix A contains Minnesota's minimum-wage law. Appendix B describes data and estimation procedures.

Exemptions and lower minimums

Both federal and state law provide several exemptions from minimum-wage coverage.⁹ For example, Minnesota exempts some salaried and minor employees in agriculture, 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 the state minimum wage, or both or neither, depending on whether he or she meets the respective exemption conditions. A majority of workers are subject to both the federal and state laws.

Lower minimum-wage levels apply to some workers. Workers whose employers have annual revenues less than \$500,000 are generally exempt under federal law if they are not involved in interstate commerce;¹⁰ however, small employers in Minnesota are subject to a lower minimum. Since August 2005, this "small employer" minimum has been \$5.25 for employers with revenues less than \$625,000. For

⁸ Overtime pay, tips and commissions are excluded from the hourly pay in the data used. Also, tips are excluded from wages for purposes of Minnesota's minimum-wage law (see Appendix A). Workers may have reported wages less than the full effective minimum because they 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 data errors may occur. This report does not attempt to distinguish among these situations. The term "minimum-wage worker" as used in this report has no implications regarding the degree of compliance with the minimum-wage law.

⁹ The Minnesota exemption categories are in Appendix A. The federal exemption categories are at www.dol.gov/elaws/esa/flsa/screen75.asp.

¹⁰ If neither of these conditions is met, individuals are still covered if they work for a hospital, business providing medical or nursing care for residents, school or preschool, or government agency.

workers younger than age 20, both federal and state law provide a lower minimum during the first 90 consecutive days of employment. The federal “youth minimum” has been \$4.25 an hour since September 1997. The Minnesota youth minimum has been \$4.90 since August 2005. Special federal and state rules also apply to handicapped workers.¹¹

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.¹²

Data and estimation technique

The statistics in this report are estimates derived from the Current Population Survey (CPS). The CPS, conducted monthly by the U.S. Census for the U.S. Bureau of Labor Statistics, provides data about the labor market experience of U.S. households. 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 or a combination of Minnesota and U.S. data. See Appendix B for details.

Because of the increase in the Minnesota minimum wage in August 2005 and the increases in the federal minimum on July 24 of 2007, 2008 and 2009, the report uses years running from August through July as the time unit of analysis. The CPS data pertains to the week containing the 12th of each month, so the July data for 2007, 2008 and 2009 reflects the federal minimum before the increase that occurred on July 24 of each of those years.

Focus on hourly workers

Previous reports included both hourly and salaried workers in the analysis; this report, however, is limited to hourly workers. This is partly because reported weekly earnings (used to estimate hourly pay for salaried workers) are unrealistically low for a significant number of salaried workers. In addition, the weekly earnings figure includes overtime pay, tips and commissions, in contrast with the hourly pay figure used for hourly workers, which does not.

The limitation to hourly workers also makes sense because of the exemption of many salaried workers from the minimum-wage law.

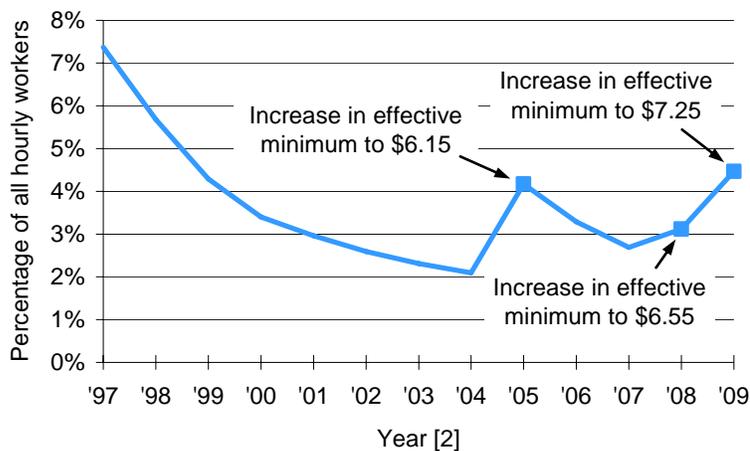
Because of this change, statistics in this report differ from those in prior reports.

¹¹ For more information about the federal provisions, see www.dol.gov/whd/minwage/q-a.htm#.

¹² See Appendix A.

Figure 1
Minimum-wage workers as percentage of all hourly workers,
Minnesota, 1997-2009 [1,2]

Because of rising overall wage levels over time, the number and percentage of hourly workers earning the minimum wage or less have fallen over time when the minimum wage has been stationary. Increases in the minimum, when they have occurred, have raised the number and percentage of hourly workers earning the minimum or less.



- Because of increases in the federal minimum wage to \$6.55 in 2008 and to \$7.25 in 2009, the percentage of hourly workers earning the full effective minimum or less rose from an estimated 2.7 percent in 2007 to 4.5 percent in 2009.¹³
- Because the effective minimum wage remained at \$5.15 from 1997 to 2004, the percentage of hourly workers earning the effective minimum or less fell from an estimated 7.4 percent in 1997 to 2.1 percent in 2004.
- The number of hourly workers earning the effective minimum wage or less stood at an estimated 105,000 in 1997 and 48,000 in 2008.

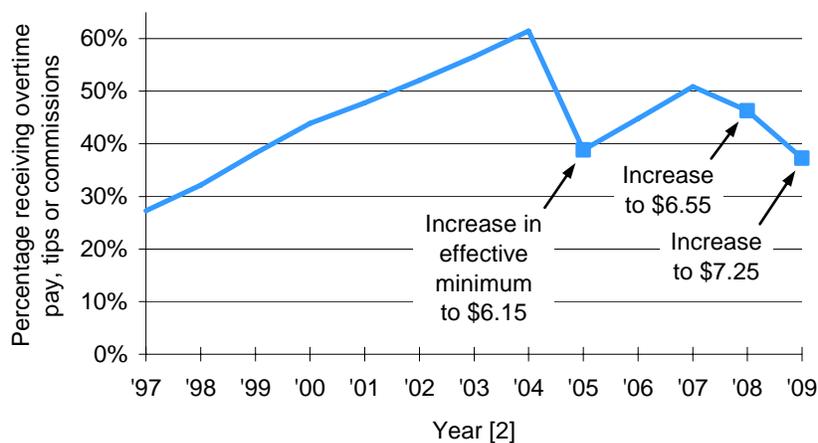
Year [2]	Full minimum wage [3]			Hourly workers at or below full minimum wage [4]	
	State	Federal	Effective level [5]	Number (1,000s)	Pctg. of all
					hourly workers
8/97-7/98	\$5.15 [6]	\$5.15 [6]	\$5.15 [6]	105	7.4%
8/98-7/99	5.15	5.15	5.15	84	5.7
8/99-7/00	5.15	5.15	5.15	64	4.3
8/00-7/01	5.15	5.15	5.15	51	3.4
8/01-7/02	5.15	5.15	5.15	45	3.0
8/02-7/03	5.15	5.15	5.15	40	2.6
8/03-7/04	5.15	5.15	5.15	36	2.3
8/04-7/05	5.15	5.15	5.15	33	2.1
8/05-7/06	6.15	5.15	6.15	66	4.2
8/06-7/07	6.15	5.15	6.15	52	3.3
8/07-7/08	6.15	5.85	6.15	42	2.7
8/08-7/09	6.15	6.55	6.55	48	3.1
8/09-7/10	6.15	7.25	7.25	[7]	4.5

1. Estimated by DLI Policy Development, 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. *Because the estimates refer only to hourly workers, they differ from those in the previous report, which referred to all wage-and-salary workers.*
2. Each year 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.
6. The state and federal minimum-wage levels of \$5.15 an hour took effect on Sept. 1, 1997. The prior state and federal minimums were \$4.25 and \$4.75, respectively.
7. Not yet available.

¹³ See note 2 in figure.

Figure 2
Percentage of hourly minimum-wage workers receiving overtime pay, tips or commissions, Minnesota, 1997-2009 [1]

As indicated in note 3 of Figure 1, 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 2009, an estimated 37 percent of hourly minimum-wage workers received OTC.



- The percentage of hourly minimum-wage workers receiving OTC has risen when the minimum wage has been stationary and has fallen when the minimum has increased. This is because in the lower end of the wage distribution, the percentage of hourly workers with OTC is higher at lower wage levels. (When the minimum is stationary, it becomes lower relative to other wages as they rise over time.)¹⁴

- Changes in the number of hourly minimum-wage workers over time have taken place primarily among workers *not* receiving OTC. For example, from 1997 to 2004, when the effective minimum was stationary at \$5.15, the number of hourly minimum-wage workers receiving OTC fell from 29,000 to 20,000, while the number

not receiving OTC fell from 77,000 to 13,000.

	Full minimum wage [3]			Hourly workers at or below full minimum wage			
				Usually receive overtime pay, tips or commissions?			
				Yes		No	
	State	Federal	Effective level [4]	Number (1,000s)	Pctg.	Number (1,000s)	Pctg.
8/97-7/98	\$5.15 [5]	\$5.15 [5]	\$5.15 [5]	29	27.3%	77	72.7%
8/98-7/99	5.15	5.15	5.15	27	32.1	57	67.9
8/99-7/00	5.15	5.15	5.15	25	38.2	40	61.8
8/00-7/01	5.15	5.15	5.15	22	43.9	29	56.1
8/01-7/02	5.15	5.15	5.15	21	47.8	23	52.2
8/02-7/03	5.15	5.15	5.15	21	52.0	19	48.0
8/03-7/04	5.15	5.15	5.15	20	56.6	15	43.4
8/04-7/05	5.15	5.15	5.15	20	61.5	13	38.5
8/05-7/06	6.15	5.15	6.15	25	38.8	40	61.2
8/06-7/07	6.15	5.15	6.15	23	44.8	29	55.2
8/07-7/08	6.15	5.85	6.15	21	50.9	21	49.1
8/08-7/09	6.15	6.55	6.55	22	46.3	26	53.7
8/09-7/10	6.15	7.25	7.25	[6]	37.2	[6]	62.8

1. Estimated by DLI Policy Development, 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. *Because the estimates refer only to hourly workers, they differ from those in the previous report, which referred to all wage-and-salary workers.*
2. Each year 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.
5. The state and federal minimum-wage levels of \$5.15 an hour took effect on Sept. 1, 1997. The prior state and federal minimums were \$4.25 and \$4.75, respectively.
6. Not yet available.

¹⁴ It makes sense that the percentage of workers with OTC would be relatively high at relatively low levels of regular pay (excluding OTC). Theoretically, workers who have OTC would be willing to accept a lower level of regular pay, other things equal.

Figure 3
Hourly minimum-wage workers and percentage receiving other types of pay
by industry, Minnesota, August 2008 – July 2009 [1]

Industry group [2]	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour			
		Number (1,000s)	Percentage among workers in industry	Percentage among all hourly workers at or below \$6.55/hour	Pctg. of these workers who receive overtime pay, tips or commissions
Total, 15 years and older	1,543	48	3.1%	100.0%	46.3%
Eating and drinking places	118	26	21.8	53.6	69.0
Private household services	9	~	5.1	.9	20.4
Arts, entertainment and recreation	32	1	4.0	2.6	48.3
Agriculture, forestry, fishing and hunting	10	~	3.3	.7	6.6
Hotels, motels and other accommodation	19	1	3.2	1.2	57.4
Retail trade	215	7	3.0	13.5	14.7
Social assistance	42	1	3.0	2.6	10.3
Other services	51	1	2.6	2.7	41.8
Mgmt., adm. and support, and waste mgmt. servs.	59	1	1.9	2.3	16.5
Educational services	103	2	1.8	3.9	7.8
Residential facilities	53	1	1.7	1.9	21.3
Real estate, rental and leasing	17	~	1.6	.6	19.5
Health care excl. hospital and residential services	95	1	1.4	2.8	15.8
Information	31	~	1.3	.9	11.9
Wholesale trade	38	~	1.0	.8	22.0
Transportation and warehousing	59	1	.9	1.1	18.3
Manufacturing	231	2	.8	3.8	16.7
Public administration [3]	62	~	.7	1.0	44.3
Professional, scientific and technical services	47	~	.6	.6	14.3
Finance and insurance	54	~	.6	.6	24.7
Hospitals	81	~	.5	.9	18.1
Construction	101	~	.4	.8	14.3
Utilities	12	~	.2	.0	[4]
Mining	4	~	.1	.0	[4]

"~" = fewer than 500 workers.

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 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 educational services.
4. Percentages are not given for these industries because of small sample size.

Among industry groups, Minnesota's hourly minimum-wage workers are most prevalent in eating and drinking places, as is the percentage of minimum-wage workers receiving OTC.

- For August 2008 to July 2009, the proportion of hourly workers earning the minimum wage or less was highest by far in eating and drinking places, at 22 percent. About 54 percent of all hourly minimum-wage workers were employed in eating and drinking places.
- Relatively high concentrations of minimum-wage workers were also found in private household services and arts, entertainment and recreation.
- About 69 percent of hourly minimum-wage workers in eating and drinking places received OTC, followed by 57 percent in hotels, motels and other accommodation and 48 percent in arts, entertainment and recreation.

Figure 4
Hourly minimum-wage workers and percentage receiving other types of pay
by occupation, Minnesota, August 2008 – July 2009 [1]

Occupation group	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour			Pctg. of these workers who receive overtime pay, tips or commissions
		Number (1,000s)	Percentage among workers in occupation	Percentage among all hourly workers at or below \$6.55/hour	
Total, 15 years and older	1,543	48	3.1%	100.0%	46.3%
Food preparation and serving	136	26	19.5	55.0	67.9
Personal care and service	57	3	4.7	5.6	38.9
Farming, fishing and forestry	10	~	3.9	.8	5.2
Sales and related services	151	6	3.8	12.0	17.4
Building and grounds cleaning and maintenance	68	2	3.0	4.2	14.3
Health care support	49	1	2.3	2.4	19.9
Transportation and material moving	111	2	1.9	4.4	30.0
Protective service	26	~	1.6	.9	46.0
Education, training and library	57	1	1.4	1.7	4.5
Office and administrative support	265	3	1.1	6.1	10.3
Arts, design, entertainment, sports and media	20	~	1.1	.4	15.0
Production	169	2	1.0	3.5	14.4
Community and social service	24	~	.7	.3	7.9
Construction and extraction	89	~	.4	.7	9.7
Management, professional and technical [2]	250	1	.3	1.6	22.8
Installation, maintenance and repair	61	~	.3	.4	26.2

"~" = fewer than 500 workers.

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 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 percentage of hourly workers at or below \$6.55 an hour in these groups ranges from 0.2 to 0.4 percent.

Among occupation groups, Minnesota's hourly minimum-wage workers are most prevalent in food preparation and serving occupations, as is the percentage of hourly minimum-wage workers receiving OTC.

- About 20 percent of workers in food preparation and serving occupations were minimum-wage workers from August 2008 to July 2009. About 55 percent of all hourly minimum-wage workers were in these occupations.
- Relatively high concentrations of minimum-wage workers were also found in personal care and service occupations; farming, forestry and fishing occupations; and sales and related services.
- About 68 percent of minimum-wage workers in food preparation and serving occupations received OTC, followed by 46 percent in protective service and 39 percent in personal care and service.
- The type of pay involved with OTC is not indicated by the data. For example, for the 68 percent of hourly minimum-wage workers in food preparation and serving occupations that receive OTC, the data does not indicate what proportion receive tips as opposed to overtime or commissions.

Figure 5
Hourly minimum-wage workers by gender and age,
Minnesota, August 2008 – July 2009 [1]

Gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
15-19 years	139	18	13.2	38.2
20-24 years	238	12	5.0	24.9
25-54 years	942	14	1.5	29.5
55 years and older	224	4	1.6	7.4
Men	727	18	2.5	37.9
15-19 years	67	7	11.2	15.5
20-24 years	125	5	3.9	10.1
25-54 years	443	5	1.1	10.1
55 years and older	92	1	1.1	2.2
Women	816	30	3.7	62.1
15-19 years	72	11	15.1	22.7
20-24 years	113	7	6.3	14.8
25-54 years	500	9	1.9	19.4
55 years and older	131	2	1.9	5.2

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).

Among hourly workers, young workers and women are more likely than others to be minimum-wage workers. Older workers are about as likely as those in their middle years to be minimum-wage workers.

- Among 15- to 19-year-old hourly workers, 13.2 percent earned \$6.55 an hour or less for August 2008 to July 2009, compared with 1.5 percent of 25- to 54-year-olds and 1.6 percent of those 55 and older.
- As a result, 15- to 19-year-olds comprised roughly 38 percent of all hourly minimum-wage workers even though they made up

only 9 percent of the hourly workforce. Combining the two youngest groups, 15- to 24-year-olds made up 63 percent of all hourly minimum-wage workers.

- Although 25- to 54-year-olds were least likely to be minimum-wage workers, they made up 30 percent of all hourly minimum-wage workers because they accounted for 61 percent of the hourly workforce.
- Women were more likely than men to be minimum-wage workers (3.7 vs. 2.5 percent), and therefore accounted for 62 percent of all hourly minimum-wage workers.

Figure 6
Hourly minimum-wage workers by work status, gender and age,
Minnesota, August 2008 – July 2009 [1]

Work status, gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
Full time [2]	1,069	14	1.3	28.5
Men	577	6	1.0	12.4
Women	491	8	1.6	16.1
15-19 years	28	2	5.5	3.2
20-24 years	146	4	2.8	8.3
25-54 years	751	7	.9	14.5
55 years and older	144	1	.8	2.5
Part time [2]	475	34	7.3	71.5
Men	150	12	8.2	25.5
Women	325	22	6.8	46.0
15-19 years	111	17	15.1	35.0
20-24 years	93	8	8.6	16.6
25-54 years	191	7	3.8	15.0
55 years and older	79	2	3.0	4.9

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).
2. Full-time workers are defined as those usually working 35 or more hours a week.

Part-time workers are much more likely than full-time workers to be minimum-wage workers.

- Among hourly part-time workers, 7.3 percent earned \$6.55 an hour or less, compared with 1.3 percent of full-time workers.
- Part-time workers made up 72 percent of all hourly minimum-wage workers, even though they accounted for only 31 percent of the hourly workforce.

- Among full-time hourly workers, women were more likely to be minimum-wage workers (1.6 percent vs. 1.0 percent for men). Among part-time workers, however, men were more likely than women to be minimum-wage workers (8.2 vs. 6.8 percent). A possible explanation is that part-time employment is more commonly a long-term situation for women, as they balance work inside and outside of the home, and a longer-term job is likely to be higher-paid.¹⁵

¹⁵ Notably, the percentage of hourly workers earning \$6.55 or less is lowest among workers age 55 or older among both full-time and part-time workers. However, when full-time and part-time workers are combined (Figure 5), the percentage of minimum-wage workers is about the same for workers age 55 or older as among 25- to 54-year-olds. This is because a higher proportion of older workers than of middle-age workers are part-timers, who are more likely to be earning the minimum wage.

Figure 7
Hourly minimum-wage workers by education, gender and age,
Minnesota, August 2008 – July 2009 [1]

Education, gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
Less than high school	172	17	9.9	35.5
Men	91	7	7.6	14.4
Women	81	10	12.5	21.0
15-19 years	85	14	16.0	28.3
20-24 years	16	1	5.1	1.7
25-54 years	57	2	3.7	4.4
55 years and older	14	1	3.9	1.1
High school only	460	11	2.5	23.7
Men	235	4	1.7	8.4
Women	225	7	3.3	15.3
15-19 years	31	3	8.4	5.4
20-24 years	61	3	4.2	5.4
25-54 years	287	5	1.7	9.9
55 years and older	81	1	1.8	3.0
At least some college	911	20	2.2	40.8
Men	400	7	1.8	15.1
Women	511	12	2.4	25.8
15-19 years	23	2	9.5	4.6
20-24 years	161	9	5.3	17.9
25-54 years	598	7	1.2	15.2
55 years and older	129	2	1.2	3.2

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).

Minimum-wage workers are most prevalent among the least educated.

- Minimum-wage workers comprised 9.9 percent of hourly workers with less than a high-school education, compared with 2.5 percent for those with a high-school degree and 2.2 for those with at least some college.
- Because 59 percent of hourly workers had at least some college education, these people accounted for 41 percent of all hourly minimum-wage workers.
- Those without a high-school degree made up 36 percent of all minimum-wage workers, even though they comprised only 11 percent of the hourly workforce.

Figure 8
Hourly minimum-wage workers by marital status, gender and age,
Minnesota, August 2008 – July 2009 [1]

Marital status, gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
Married, spouse present	731	9	1.2	18.4
Men	324	2	.7	4.8
Women	407	7	1.6	13.7
15-19 years	~	[2]	[2]	[2]
20-24 years	22	1	2.9	1.4
25-54 years	557	6	1.1	13.0
55 years and older	151	2	1.2	3.9
Other marital status	813	39	4.8	81.6
Men	403	16	4.0	33.2
Women	410	23	5.7	48.4
15-19 years	139	18	13.2	38.1
20-24 years	216	11	5.2	23.6
25-54 years	385	8	2.1	16.5
55 years and older	73	2	2.3	3.4

"~" = fewer than 500 workers.

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).
2. Estimates not given because of small sample size.

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

- Minimum-wage workers comprised 4.8 percent of unmarried hourly workers, as opposed to 1.2 for those who were married.
- Unmarried workers accounted for 82 percent of all hourly minimum-wage workers even

though they made up only 53 percent of the hourly workforce.

- Unmarried women accounted for 48 percent of all hourly minimum-wage workers even though they accounted for only 27 percent of the hourly workforce.

Figure 9
Hourly minimum-wage workers by poverty status, gender and age,
Minnesota, August 2008 – July 2009 [1]

Poverty, status, gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
At or below poverty line [2]	140	9	6.4	18.7
Men	66	3	5.1	7.0
Women	73	6	7.7	11.7
15-19 years	16	3	16.6	5.6
20-24 years	42	3	6.6	5.8
25-54 years	73	3	4.2	6.4
55 years and older	8	0	5.9	1.0
Above poverty line [2]	1,403	39	2.8	81.3
Men	660	15	2.3	30.9
Women	743	24	3.3	50.3
15-19 years	123	16	12.8	32.6
20-24 years	196	9	4.7	19.1
25-54 years	869	11	1.3	23.1
55 years and older	216	3	1.4	6.4

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).

2. The poverty line depends on household size and is applied to total household income. The poverty status of each household member is the same as the poverty status of the household.

Minimum-wage workers are more prevalent among those in poverty than among other hourly workers.

- Minimum-wage workers accounted for 6.4 percent of hourly workers living below the

poverty line, as opposed to 2.8 percent of those above the poverty line.

- Workers below the poverty line comprised 19 percent of hourly minimum-wage workers, compared with 9 percent of all hourly workers.

Figure 10
Hourly minimum-wage workers by metropolitan residence, gender and age,
Minnesota, August 2008 – July 2009 [1]

Metropolitan residence, gender and age	Total hourly workers (1,000s)	Hourly workers at or below \$6.55 an hour		
		Number (1,000s)	Percentage	Percentage among all hourly workers at or below \$6.55/hour
Total, 15 years and older	1,543	48	3.1%	100.0%
Metropolitan [2]	1,098	33	3.0	69.6
Men	522	13	2.6	28.0
Women	576	20	3.5	41.5
15-19 years	97	12	12.4	24.8
20-24 years	174	9	4.9	17.7
25-54 years	682	11	1.6	22.3
55 years and older	145	2	1.6	4.8
Nonmetropolitan [2]	445	15	3.3	30.4
Men	205	5	2.3	9.9
Women	240	10	4.1	20.6
15-19 years	42	6	15.3	13.4
20-24 years	64	3	5.4	7.2
25-54 years	260	3	1.3	7.3
55 years and older	78	1	1.6	2.6

1. Estimated by DLI Policy Development, 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 effective minimum-wage level for the period concerned was the federal level of \$6.55 an hour (see Figure 1 and p. 2 [Data and estimation technique]).
2. 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 (Stearns and Benton Counties). The Rochester and Grand Forks MSAs are not in the sample, nor is the Houston County portion of the La Crosse MSA.

The data for August 2008 to July 2009 show little difference between the prevalence of hourly minimum-wage workers in metropolitan and nonmetropolitan Minnesota (see note 2 in figure).

- In metropolitan Minnesota, minimum-wage workers constituted an estimated 3.0 percent of the hourly workforce; for the rest of the state, minimum-wage workers were 3.3 percent of the total.
- Because of this slight difference, the metropolitan and nonmetropolitan shares of the state's hourly minimum-wage workers (70 and 30 percent, respectively) were about

the same as their shares of the hourly workforce (71 and 29 percent).

- The prevalence of minimum-wage workers varies more by gender and age in nonmetropolitan Minnesota than in the state's metropolitan areas.
- There is a larger difference between the prevalence of hourly minimum-wage workers in metropolitan and nonmetropolitan areas when the minimum wage is higher, relative to overall wage levels, than it was during the year examined here.¹⁶

¹⁶ See Appendix B, p. 19.

Appendix A

Minnesota minimum-wage statute

The following is Minnesota Statutes §177.23, 177.24 and 177.28 as of February 2010.¹⁷

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;

¹⁷ Taken from the Web site of the Minnesota Office of the Revisor of Statutes, www.revisor.leg.state.mn.us/stats/177, on Feb. 10, 2010.

(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);

(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

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 \$625,000 (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 \$625,000 (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, every large employer must pay each employee wages at a rate of at least \$5.15 an hour beginning September 1, 1997, and at a rate of at least \$6.15 an hour beginning August 1, 2005. Every small employer must pay each employee at a rate of at least \$4.90 an hour beginning January 1, 1998, and at a rate of at least \$5.25 an hour beginning August 1, 2005.

(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 \$4.90 an hour. No employer may take any action to displace any 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.

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 and individually sharing gratuities with other employees. The agreement to share gratuities must be made by the employees free of any employer participation. 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

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 procedures used for this report. The descriptions are at a general level. More detail is available upon request from DLI Policy Development, Research and Statistics.

As previously indicated, the statistics are derived from the Current Population Survey (CPS), which is conducted monthly by the U.S. Census for the U.S. Bureau of Labor Statistics.

In all instances, the estimation procedures were used to reduce the sampling error that would result, because of small sample size, if the numbers were computed directly from the Minnesota data. Indeed, estimates with any statistical reliability at all could not be directly calculated from the Minnesota data for any but the broadest categories in the report.

Figure 1 — The percentage of Minnesota hourly workers at or below the effective minimum wage for each year was estimated using Minnesota data for August 1997 to July 2009. For those years, 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. Data points were created by using hourly wage levels at multiples of \$.25, going no lower than the effective full minimum wage for the year in question. Because of wage growth over time, the wage level was transformed into an index, equal to the wage level divided by the hourly equivalent of the statewide average weekly wage (SAWW).¹⁸

¹⁸ The SAWW, from the Department of Employment and Economic Development, is the average weekly wage of nonfederal workers covered under unemployment insurance. It is used by insurers and the Department of Labor and Industry (DLI) to adjust certain workers' compensation benefits and by DLI to adjust provider fee limits.

This statistical relationship was then used to estimate the percentage of hourly minimum-wage workers at or below the effective minimum for each year, given the effective minimum relative to the SAWW and the SAWW itself. The year August 2009 to July 2010 was included in this estimation by using a projected value of the SAWW for that period.

Minnesota's total number of hourly minimum-wage workers for each year (through August 2008 to July 2009) was estimated by applying the above estimated percentage to the state's total number of hourly workers. The latter was estimated because it fluctuated in the sample data from year to year. The estimate was done by applying a smoothed version of the percentage of hourly workers among all wage-and-salary workers to the calculated number of wage-and-salary workers.

Figure 2 — The percentage of hourly minimum-wage workers who received overtime pay, tips or commissions (OTC) each year was estimated with a similar statistical technique to that used in Figure 1. The difference was that the outcome variable was the percentage of hourly minimum-wage workers receiving OTC, rather than the percentage of hourly workers receiving the minimum wage or less. The number of hourly minimum-wage workers receiving OTC for each year was estimated by applying the estimated percentage receiving OTC to the estimated number of hourly minimum-wage workers from Figure 1.

Figures 3 and 4 — Minnesota's total number of hourly workers for August 2008 to July 2009 was estimated as described for Figure 1. The total number of hourly workers by industry or occupation was estimated by applying the percentage of hourly workers by industry or occupation for August 2004 to July 2009 to the total number of hourly workers for August 2008 to July 2009, using Minnesota data. The five-

year percentage was used to reduce sampling variation.

The total number of hourly minimum-wage workers was the number estimated for Figure 1.

The number of hourly minimum-wage workers for each industry or occupation was estimated using, as the starting point, the U.S. ratio of hourly minimum-wage workers to total hourly workers by industry or occupation, averaged over August 2004 to July 2009.¹⁹ Because hourly minimum-wage workers make up a larger proportion of the U.S. hourly workforce than of the Minnesota hourly workforce, the Minnesota estimates were scaled proportionately downward so that the sum of the estimated numbers for the different industries and occupations was equal to Minnesota's estimated total number of hourly minimum-wage workers.

A similar technique was used for the number of hourly minimum-wage workers receiving overtime pay, tips, or commissions by industry or occupation. Because of issues raised by the fact that Minnesota does not allow a lower minimum wage for tipped employees, the estimates for eating and drinking places (in Figure 3) and for food preparation and serving occupations (in Figure 4) were benchmarked to numbers estimated solely from Minnesota data, and the estimates for the remaining industry and occupation groups were correspondingly adjusted.

Figures 5 to 10 — The total number of hourly workers and the total number of hourly minimum-wage workers for August 2008 to July 2009 were computed as described for the preceding figures.

The total number of hourly workers for each group in each figure (e.g., 16- to 19-year-old males in Figure 5) was estimated with the same technique as for industries and occupations in Figures 3 and 4, using Minnesota data only.

¹⁹ The U.S. ratio for each industry and occupation was actually estimated using a technique similar to that used for estimating the proportion of Minnesota's hourly workers receiving the minimum-wage or less for Figure 1. In this process, only those wage levels were used that were at least as great as both the federal minimum wage and the applicable state minimum.

To derive estimates of the number of hourly minimum-wage workers for the different subgroups that would be consistent across Figures 5-10, it was necessary to first estimate the proportions of all hourly workers in all the "mini-cells" defined by all the categories in these figures combined. This was done using the U.S. data for August 2004 to July 2009 in such a way that the totals for the categories in each figure (e.g., 16- to 19-year-old males in Figure 5) were equal to the totals previously estimated.

The number of minimum-wage workers in each mini-cell was estimated using the U.S. percentage of minimum-wage workers among all hourly workers in that mini-cell as the starting point, using data for August 2004 to July 2009. Again, since Minnesota's overall percentage of hourly minimum-wage workers was less than for the United States, the Minnesota estimates were scaled proportionately downward so that the resulting total number of hourly minimum-wage workers for the state was equal to the previously estimated number.

The results for Figure 10 showed a smaller-than-expected difference between the prevalence of hourly minimum-wage workers in metropolitan and nonmetropolitan areas (3.0 percent of all hourly workers for metropolitan areas vs. 3.3 percent for nonmetropolitan areas). This difference was examined further using the same technique as in Figures 1 and 2, applied separately to metropolitan and nonmetropolitan data for Minnesota only. This analysis gave estimates of 3.0 percent for metropolitan areas and 3.4 percent for nonmetropolitan areas, strongly supporting the original results. However, this analysis also indicated that when the minimum wage is higher relative to the SAWW than it was for the year concerned in Figures 5-10 (August 2008 to July 2009), the metropolitan-nonmetropolitan difference is greater. For example, for August 2009 to July 2010 (when the effective minimum wage was \$7.25, as opposed to \$6.55 for the prior year), the analysis estimated that the proportion of minimum-wage workers was 4.1 percent for metropolitan areas and 5.5 percent for nonmetropolitan areas.