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THE POTENTIAL EFFECTS OF A $12.00 MINIMUM WAGE IN MISSOURI

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KEY TAKEAWAYS

- Under the proposed legislation, approximately 11,000 workers are projected to lose their jobs.
- Of the Missouri hourly workers who would receive an increase under the proposed legislation, about one in three of those workers would be living at home with their parents.
- Only about 19 percent of the workers projected to be affected by the minimum wage hike are in families with incomes below the poverty line.
- Only about 10 percent of those who would see a wage increase under the proposed legislation are single parents.
- Increasing the minimum wage would increase the wages of less than half of Missouri workers living in poverty, while an earned income tax credit (EITC) could increase the earnings of all low-income families. In addition, increasing the minimum wage has a large spillover effect of increasing the earnings of workers in households making five times the poverty rate.

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EXECUTIVE SUMMARY

While proponents of minimum wage hikes typically cite a desire to help the working poor, relatively few of the people affected by minimum wage increases are in poverty. This study examines the potential effects of an increase in Missouri's minimum wage to $12.00 per hour by 2023. Using data from the Current Population Survey for Missouri, we estimate that between 321,000 and 367,000 workers will be affected by this minimum wage hike and between 10,000 to 12,000 jobs would be lost.[1] The affected workers are disproportionately young, are less educated, and work in the restaurant or retail sales industry. In fact, we estimate that only 19 percent of the workers who would benefit from a wage increase are living in poverty. The main reason for this is that most minimum wage workers (e.g., teenagers) are part of families with other income sources raising them out of poverty. In the end, a minimum wage hike is a blunt anti-poverty tool that may in fact do more damage than good to the poor. We describe research showing that minimum wage increases cause the prices of goods—particularly those bought by low income households—to rise, reduce teen enrollment in school, and reduce training of low-skill workers.

INTRODUCTION

The state of Missouri is considering a ballot initiative that would raise the minimum wage from $7.85 in 2018 to $12.00 per hour in 2023. The measure would increase the minimum hourly wage from $7.85 (2018) to $8.60 in 2019; $9.45 in 2020; $10.30 in 2021; $11.15 in 2022; and $12.00 in 2023. Thereafter, the minimum wage would increase or decrease each year based on changes in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The initiative exempts government employers from the increase.

This report provides estimates of the number of workers whose wage or employment status will be directly affected by this minimum wage hike, and a demographic profile of these workers. The study also employs methods similar to those employed by the Congressional Budget Office (CBO) to estimate the number of jobs that would be lost as a result of the minimum wage hike and a demographic profile of the job losers.

The study reaches several conclusions about the consequences of the minimum wage hike. First, the workers affected by this increase are much younger and less educated than the average Missouri worker. Second, less than one-fifth of the affected workers are the sole earners for families supporting one or more children or a spouse. Third, 81 percent of affected workers are in families with an income above the poverty level, and 61 percent are in families with incomes more than two times the poverty level. That is, most workers who will be affected by the proposed minimum wage hike are not living in poverty. Finally, the minimum wage increase is projected to reduce private sector wage and salary employment by between 10,000 and 12,000 jobs in Missouri. This total represents about 0.5 percent of Missouri's projected private sector wage and salary employment in 2023. The burden of the job loss is disproportionately borne by the young, the less educated, and female workers, and among people employed in restaurants and grocery stores.

THE DATA

The Current Population Survey (CPS), jointly sponsored by the Bureau of Labor Statistics and the U.S. Census Bureau, contains data obtained from monthly interviews with approximately 60,000 households from all 50 states and the District of Columbia. The data provide weights that allow researchers to generate estimates of labor market statistics at the national or state level. For example, the CPS is the primary data source for estimates of the national and state unemployment rate, as well as estimates of hours worked and hourly wages.

When a household is selected for inclusion in the CPS, it is included for four consecutive months, then excluded for eight months, and then it returns for an additional four months. Earnings data are collected from household members only in their 4th and 8th interview, when they part of an "outgoing rotation group" (ORG). Because earnings data are essential to our analysis of minimum wage effects, we rely on data collected from households in the CPS-ORGs between July 2015 and June 2018. To examine poverty rates, we also use data from the 2014 through 2017 CPS Annual Social and Economic

[1] "Affected workers" is used here to refer to those workers who would have a higher hourly wage under the proposed legislation than they would have under the current minimum wage indexed to inflation. Affected worker and job loss numbers are point estimates based on sample data. The 95% CI for affected workers is 321,167–365,800 and the 95% CI for jobs lost is 10,052–12,339.

Supplement (CPS-ASEC) that is conducted in March of every year. Unlike the CPS-ORG, the CPS-ASEC provides information on family income and poverty rates.

For our analysis we consider only private-sector workers, since the proposed legislation does not apply to public-sector employers. We also restrict the analysis to wage and salary workers (i.e., we exclude the self-employed) since the self-employed are not covered by the Missouri (or federal) minimum wage law. We define a worker as potentially affected by the minimum wage hike if they are (1) employed in the private sector; and (2) have an hourly wage at or above the Missouri minimum wage (less 25 cents) during the year of the sample survey. We include those earnings up to $0.25 below the minimum in effect during the survey year to allow for error in reporting wages. For example, in the 2016 data, since the minimum wage was $7.65, anyone earning at or above $7.40 is included in our group of potentially affected workers.[2]

To project the distribution of wages in 2023 without passage of the new legislation, we assume that every potentially affected worker has wage growth of 2.9 percent annually until 2023. This assumption is based on the CBO's forecast of wage growth for low-skill workers in their study of the employment effects of minimum wage hikes.[3] Also, given that Missouri indexes its minimum wages for inflation, we assume that, under current law and without the proposed legislation, the minimum wage would increase to $8.85 by 2023 based on the CBO forecast of inflation averaging 2.43 percent per year between 2018 and 2023. Therefore, we assume that workers are "affected" by the legislation if their expected wages under the legislation are higher than what would be expected from a minimum simply indexed to inflation.

An important effect of the minimum wage increase is that some workers will lose their jobs because firms will no longer be able to employ them profitably. To estimate the number of affected workers in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. This is accomplished by growing the survey weights by 1.07 percent per year until 2023 based on CBO projections of employment growth. After we adjust the weights, we estimate the number of affected workers by summing their earnings weights and dividing the total by 36 (the number of months of data).

To project the employment loss that would occur in 2023, for each affected worker we compute:

$$L = \sum_{k=1}^{n} e * \left(\left(\frac{Proposed\ minimum\ wage\ in\ 2023}{Projected\ wage\ of\ affected\ worker_k\ in\ 2023} \right) - 1 \right)$$

Where: L = total jobs lost between 2019 and 2023

e = elasticity of job loss (.45 for workers aged 16–19 years and .15 for workers 20 years of age or older)

k = each affected worker

n = total number of affected workers

Proposed minimum wage in 2023 = $12

Projected wage of affected worker$_k$ *in 2023* = 2018 wage with assumed annual increase of 2.9 percent until 2023

The elasticity assumption is essential to the estimate of job loss. An assumed elasticity of .45, for example, implies that a 10 percent increase in worker's wages would cause employment to decrease by 4.5 percent. To estimate the aggregate employment loss in the economy, we use earnings weights to sum L across workers. We also follow the CBO (2014) and assume an elasticity of 0.15 for workers over age 19 and 0.45 for workers aged 16–19.

THE EFFECTS OF A MINIMUM WAGE INCREASE

A detailed statistical portrait of the workers who would be affected by a $12.00 minimum in 2023 (i.e., earning between $8.85 and $12.00 in 2023 dollars) emerges from Table 1 *(tables are found at the end of the essay)*. The table shows, for various age and education groups in Missouri, the projected number of workers employed, the projected number who would be affected by the minimum wage increase to $12, and the estimated number of jobs that would be lost. It also presents the percentage of workers who would be affected by the minimum wage hike in each group, the percentage of all affected workers in each age group, and the share of all job loss in each age group.

[2]See the data appendix for more details on the construction of the hourly wage and family income variables. Observations missing data necessary to compute the hourly wage, family income, or other relevant variables are deleted from the sample.

[3]Congressional Budget Office (2014).

For the state of Missouri as a whole, estimated private-sector wage and salary employment in 2023 is approximately 2.4 million workers, and about 14 percent of all workers would be affected by the minimum wage hike. Between 10,000 and 12,000 jobs would be eliminated in 2023 as a result of the hike. The remainder of the table illustrates that younger and less educated workers bear a disproportionate share of the impact. For example, while workers under 24 years of age account for 16 percent of total employment, they account for 44 percent of the workers affected by the minimum wage hike and 69 percent of all the jobs lost. While workers with a high school degree or less account for 38 percent of total employment in Missouri, they account for 61 percent of the affected workers and 75 percent of the jobs lost.

Table 2 gives similar statistics by race, ethnicity, and sex. Black workers are more likely to be affected by the hike than Whites or member of other races, and Black workers bear a disproportionate share of the job loss. While Black workers make up 12 percent of all workers, they are forecasted to bear 18 percent of the job loss. Female workers are also predicted to account for a disproportionate share of the job loss. Women are 49 percent of the Missouri workforce but are predicted to bear 63 percent of the job loss.

Table 3 lays out the marital and family status of the affected workers. Not surprisingly, most of the affected workers and job losses are among the never married. Relatively few minimum-wage workers are supporting a family. In fact, approximately 32 percent of the affected workers are living at home with their parents. Moreover, this group accounts for 55 percent of all the jobs lost from the minimum wage hike. Relatively few of the affected workers are single parents

Table 4 provides a breakdown of the affected workers and job loss by location and part-time status. The percent affected is quite similar across the three metro areas and the more rural areas. Part-time workers are much more likely than full-time workers to be affected by the minimum wage hike. The percentage of workers affected by the hike is projected at 8 percent for full-time workers, but 42 percent for those working part-time. Moreover, 70 percent of the job loss is projected to be among part-time workers even though only 18 percent of all jobs are part-time.

Table 5 provides the 20 industries with the greatest projected job loss. With a projected job loss of about 4,050, slightly over one-third of all the jobs lost will occur in the food service industry (restaurants and other food services). Grocery stores and nursing care facilities are next highest on the list with job losses of about 850 and 500, respectively. While job loss is much smaller in some of the industries, the percentage affected is quite high (over 40 percent) in gasoline stations, hospitals, and shoe stores.

The 20 occupations with the greatest projected job loss are presented in Table 6. The top 5 are cashiers, cooks, waiters and waitresses, retail sales workers, and child care workers. For several occupations, over half of the workers are projected to be affected by the minimum wage hike (cashiers; child care workers; customer service representatives; and food preparation workers).

While proponents of minimum wage hikes typically argue that minimum wage increases help reduce poverty, it is a very blunt anti-poverty instrument because many of the affected workers are not members of a poor household.[4] For example, a teenager earning the minimum wage may be a member of a middle- or high-income household.

Table 7 shows the family income of workers affected by the $12.00 minimum wage in 2023. The median family income (as measured in the 2015 through 2018 data) of the affected worker is somewhat lower than that of the family of the average private-sector Missouri worker ($44,550 versus $66,950). However, only 21 percent of the minimum wage workers are in families with incomes of less than $20,000. In fact, about two-thirds are in families with incomes of $30,000 or more, suggesting that an increase in the Missouri minimum wage would do a relatively poor job of targeting families at the bottom of the income distribution.

Using data from the March CPS-ASEC from 2014 through 2017, we obtain information on family income relative to the poverty level for minimum wage workers (Table 8). The poverty income level is adjusted to reflect the fact that larger families require more income than smaller families. It is important to keep in mind that the sample excludes people who don't work—meaning that a family with no one working that might be in poverty would not be in the sample.

[4]See, e.g., Card and Krueger (1995), Neumark and Wascher (2002), and Burkhauser and Sabia (2007), and Sabia and Burkhauser (2010).

The statistics for Missouri reveal that only 5 percent of people who work are members of a family with income below the poverty level, and 9 percent are in families with between one and two times the poverty level of income. Only 19 percent of the workers projected to be affected by the minimum wage hike are in families with incomes below the poverty line.

SUMMARY AND DISCUSSION

This paper reaches several conclusions regarding the possible effects of the proposed rise in the Missouri minimum wage to $12.00 by January 2023. First, the workers affected by this increase are younger and less educated than the average Missouri worker. Nearly 25 percent of the affected workers do not have a high school degree (in many cases because they are still in high school), and more than 40 percent are under the age of 25. Second, less than 20 percent of the affected workers are the sole earner for a family supporting one or more children or a spouse. Third, more than four-fifths of the affected workers are members of families with incomes above the poverty level. Finally, using methods developed by the CBO for projecting job loss, we estimate that Missouri minimum wage increase will cause between 10,000 and 12,000 workers to lose their jobs by 2023, with nearly two-thirds of the job loss occurring among women. Job loss is also concentrated among cashiers, cooks, waiters and waitresses, retail sales workers, and child care workers. These five occupations are projected to account for approximately 40 percent of the total job loss.

Since one of the main objectives cited by proponents of a minimum wage increase is to fight poverty among the working poor, the estimates here highlight an important point made by others—minimum wage increases are a very blunt anti-poverty instrument.[5] That is, while some workers will receive a wage increase, the majority of the affected workers are part of families with other earners and are not in poverty.

As noted by others, a much more targeted approach to fighting poverty is the earned income tax credit (EITC), which increases the earnings of workers who are members of low-income families.[6] The EITC would not, for example, provide benefits for a working teenager in a middle- or high-income family, but would help a single parent who is in poverty. More importantly, expanding the EITC would encourage more poor workers to work full time.[7]

Raising the minimum wage would improve the earnings of some workers in Missouri, but it would also cause some low-skill workers to lose their jobs and make it more difficult for others to find jobs. There can be long-term consequences for workers who are unable to find work in their early years, and we have not estimated these costs.

A recent article (MaCurdy 2015) points to another potential downside to a minimum wage hike as an antipoverty tool. An increase in the minimum wage will increase prices for consumers, particularly for goods or services that are produced by low-skill workers (such as fast food workers). The burden of these price increases could be compared to a tax increase that might be used to finance an increase in the EITC. MaCurdy shows that the incidence of the price increases is more regressive than a sales tax. That is, compared to an increase in the sales tax that would generate the same revenue as the price increases resulting from a minimum wage hike, a larger share of the burden arising from a minimum wage hike will be borne by low-income households. As noted by MaCurdy, "these income transfer outcomes sharply contradict portraying an increase in the minimum wage as an antipoverty measure."

In addition to the above concerns, research also suggests that minimum wage hikes could reduce teenage educational attainment (Neumark and Wascher 2003) and training of less-skilled workers (Neumark and Wascher 2001; Neumark and Nizalova 2007; Hara 2017). Overall, while a minimum wage hike would increase the wages of some workers, there is considerable potential downside to such a policy.

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[5]Neumark, D. (2012).

[6]See, e.g., Burkhauser and Sabia (2010).

[7]Troske and Yelowitz (2012).

DATA APPENDIX

Family Income

The hourly wage using the CPS-ORG is constructed to account for problems caused by workers with variable hours, "top-coded" or "capped" earnings, tips, commissions, and overtime.

The first step is to assign a wage for workers who don't have these difficulties. Non–top-coded workers who are paid by the hour and receive tips, commissions, or overtime are assigned their reported hourly earnings. For all non-hourly workers, the hourly wage is constructed by dividing usual weekly earnings (which includes tips, commissions, and overtime pay) by usual hours worked per week.

The second step is to estimate usual weekly earnings for workers whose weekly earnings are top-coded or capped at a maximum value. The CPS-ORG files have a topcode of $2,885 per week or about $150,000 per year for year-round workers. If the earnings of top-coded workers were not adjusted, average earnings would be understated. To estimate the mean earnings of top-coded workers, we assume that the upper tail of the weekly earnings distribution follows a Pareto distribution. These estimated mean values are calculated by gender and year.

The third step is to estimate the usual weekly hours for workers who indicate that their weekly hours are variable. For these workers, usual weekly hours are calculated using the results of a regression model based on a sample of workers that have non-missing data on usual hours worked. The model is estimated by gender and year and includes controls for hours worked in the prior week, full-time status, marital status, years of schooling, age, race and ethnic status, broad occupation, and broad occupation interacted with full-time status. The parameters from this regression model are then used to estimate the usual hours for those whose weekly hours are variable.

The next step is to assign a wage for hourly workers who receive tips, commissions, or overtime pay or are top-coded workers. In this case, their hourly wage is constructed by dividing usual weekly earnings (adjusted for topcodes) by usual hours worked (or estimated usual hours if usual hours are missing).

The hourly wage using the March CPS is constructed in the same manner as the measure developed based on CPS-ORG data with one exception—information is not available in the March CPS as to those who receive tips, commissions, or overtime pay. As a result, the hourly wage for non-top coded workers who are paid by the hour is the reported hourly wage. For all other workers, the hourly wage is constructed by dividing usual weekly earnings by usual hours worked per week or predicted usual hours worked per week for those who report working variable hours.

Family income is reported as a categorical variable in the CPS ORG and includes all sources of money income received in the prior 12 months. The income ranges are:

less than $5,000
$5,000–$7,499
$7,500–$9,999
$10,000–$12,499
$12,500–14,999
$15,000–$19,999
$20,000–$24,999
$25,000–$29,999
$30,000–$34,999
$35,000–$39,999
$40,000–$49,999
$50,000–$74,999
$75,000–$99,999
$100,000–$149,999
$150,000 and up

To assign a dollar value to these categories, mean values of family income for persons in each income range for a sample of Missouri residents were calculated from the March 2015, March 2016, and March 2017 CPS (which reports family income received in the prior year as a continuous variable). The CPS-ORG observations were matched to the appropriate March CPS sample (i.e., 2016 values are used for the 2016 observations, etc.).

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REFERENCES

Burkhauser, Richard V., and Joseph J. Sabia. "The effectiveness of minimum-wage increases in reducing poverty: Past, present, and future." *Contemporary Economic Policy* 25, no. 2 (2007): 262–281.

Card, D., & Krueger, A. B. (1995). *Myth and measurement.* Princeton, NJ: Princeton University Press.

Congressional Budget Office (2014) The effects of a minimum-wage increase on employment and family income. Congressional Budget Office, Washington DC.

Hara, Hiromi. "Minimum wage effects on firm-provided and worker-initiated training." *Labour Economics* 47 (2017): 149–162.

MaCurdy, Thomas. "How effective is the minimum wage at supporting the poor?" *Journal of Political Economy* 123, no. 2 (2015): 497–545.

Neumark, D. "Should Missouri Raise Its Minimum Wage?" Show-Me Institute. September 2012. Retrieved September 7, 2018 from: http://showmeinstitute.org/publication/regulation/should-missouri-raise-its-minimum-wage.

Neumark, David, and Olena Nizalova. "Minimum wage effects in the longer run." *Journal of Human resources* 42, no. 2 (2007): 435–452.

Neumark, David, and William Wascher. "Do minimum wages fight poverty?" *Economic Inquiry* 40, no. 3 (2002): 315–333.

————. "Minimum wages and skill acquisition: Another look at schooling effects." *Economics of Education Review* 22, no. 1 (2003): 1–10.

Sabia, Joseph J., and Richard V. Burkhauser. "Minimum wages and poverty: will a $9.50 Federal minimum wage really help the working poor?" *Southern Economic Journal* 76, no. 3 (2010): 592–623.

Troske, K. and Aaron Yelowitz. "The Impact of Missouri's Proposed $6.50 Minimum Wage on the Labor Market." Show-Me Institute. October 10, 2006. Retrieved on September 10, 2018 from: https://showmeinstitute.org/publication/taxes-income-earnings/impact-missouris-proposed-650-minimum-wage-labor-market.

Table 1: **2023 Employment and Job Loss by Age and Education**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Age:							
16 to 19	118,620	77,570	6,420	65%	5%	23%	57%
20 to 24	259,660	70,920	1,350	27%	11%	21%	12%
25 to 30	342,730	41,200	790	12%	14%	12%	7%
31 to 40	521,700	50,030	1,000	10%	22%	15%	9%
41 to 50	478,080	39,040	580	8%	20%	11%	5%
51 to 65	585,350	46,720	770	8%	24%	14%	7%
>65	100,390	18,000	290	18%	4%	5%	3%
All age groups	2,406,520	343,480	11,200	14%	—	—	—
Average age	41	34					
Years of Schooling							
8th grade or less	22,110	9,180	350	42%	1%	3%	3%
Some high school, no diploma	141,330	71,920	4,650	51%	6%	21%	42%
High school grad, no college	745,660	127,410	3,320	17%	31%	37%	30%
Some college	755,170	104,120	2,410	14%	31%	30%	22%
College graduate	516,330	25,000	360	5%	22%	7%	3%
Graduate Degree	225,920	5,850	110	3%	9%	2%	1%
All education groups	2,406,520	343,480	11,200	14%	—	—	—
Average years of education	14	12					

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates. Parts may not sum to totals due to rounding.

Table 2: **2023 Employment and Job Loss by Race/Ethnic Status and Gender**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Race:							
White	1,996,820	254,970	8,440	13%	83%	74%	75%
Black	299,030	67,280	2,020	23%	12%	20%	18%
Other Race	110,670	21,230	730	19%	5%	6%	7%
Ethnic Status:							
Non-Hispanic	2,293,550	322,940	10,480	14%	95%	94%	94%
Hispanic	112,960	20,540	710	18%	5%	6%	6%
Gender:							
Male	1,223,460	128,210	4,150	11%	51%	37%	37%
Female	1,183,060	215,280	7,050	18%	49%	63%	63%

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 3: **2023 Employment and Job Loss by Marital Status and Family Status**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Marital Status:							
Married, Spouse Present	1,215,420	89,020	1,450	7%	51%	26%	13%
Divorced, Separated, Widowed	402,360	53,510	950	13%	17%	16%	9%
Never Married	788,740	200,950	8,790	26%	33%	59%	79%
Family Status:							
Single Male	307,880	28,820	630	9%	13%	8%	6%
Single Female	270,040	43,360	1,050	16%	11%	13%	9%
Single Mother	137,560	27,390	570	20%	6%	8%	5%
Single Father	48,470	5,280	70	11%	2%	2%	1%
Married Male Sole Earner	175,210	8,710	180	5%	7%	3%	2%
Married Female Sole Earner	86,030	13,400	230	16%	4%	4%	2%
Married Male Dual Earner	462,600	21,680	280	5%	19%	6%	3%
Married Female Dual Earner	457,530	40,390	690	9%	19%	12%	6%
Living With Parent(s)	264,120	111,410	6,150	42%	11%	32%	55%
Other Relative in Primary Family	68,040	14,730	380	22%	3%	4%	3%
Single Head with No Children	54,340	9,030	380	17%	2%	3%	3%
Related Subfamily Member	66,230	15,980	470	24%	3%	5%	4%
Unrelated Subfamily Member	8,470	3,300	120	39%	0%	1%	1%

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 4: **2023 Employment and Job Loss by Location and Labor Markets**

Variable	Total Projected 2023 Private-Sector Employ-ment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employ-ment as % of Total Employ-ment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Location:							
Non-Metro/Small Metro Areas	679,050	107,580	3,130	16%	28%	31%	28%
Kansas City, MSA	561,310	75,190	2,720	13%	23%	22%	24%
St. Louis, MSA	987,220	132,280	4,360	13%	41%	39%	39%
Springfield, MSA	178,930	28,430	990	16%	7%	8%	9%
Work Hours:							
Part-time	430,730	179,170	7,810	42%	18%	52%	70%
Full-time	1,975,790	164,310	3,390	8%	82%	48%	30%

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 5: **2023 Employment and Job Loss by Industry**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Industry:							
Restaurants And Other Food Services	158,940	71,520	4,050	45%	7%	21%	36%
Grocery Stores	54,910	23,090	850	42%	2%	7%	8%
Nursing Care Facilities	62,940	17,710	500	28%	3%	5%	5%
Department Stores And Discount Stores	37,050	9,210	480	25%	2%	3%	4%
Other Amusement, Gambling, And Recreation Industries	24,420	9,130	340	37%	1%	3%	3%
Child Day Care Services	48,800	16,120	320	33%	2%	5%	3%
Hospitals	11,310	5,340	230	47%	1%	2%	2%
Gasoline Stations	13,710	7,090	180	52%	1%	2%	2%
Employment Services	23,210	3,360	140	15%	1%	1%	1%
Accommodation	29,110	3,680	140	13%	1%	1%	1%
Services To Buildings And Dwellings	24,420	6,110	140	25%	1%	2%	1%
Elementary And Secondary Schools	156,420	7,670	130	5%	7%	2%	1%
Sporting Goods, Camera, And Hobby And Toy Store	26,760	5,990	130	22%	1%	2%	1%
Religious Organizations	17,490	3,390	130	19%	1%	1%	1%
Private Households	21,400	5,440	120	25%	1%	2%	1%
Civic, Social, Advocacy Organizations, And Grantmaking And Giving Services	7,930	2,840	120	36%	0%	1%	1%
Automotive Repair And Maintenance	11,830	3,620	120	31%	1%	1%	1%
Animal Production	5,410	1,550	120	29%	0%	1%	1%
Shoe Stores	3,280	2,080	120	64%	0%	1%	1%
Retail Bakeries	52,200	5,220	100	10%	2%	2%	1%
All Other Industries	1,615,000	133,340	2,750	8%	67%	39%	25%

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 6: **2023 Employment and Job Loss by Occupation**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Occupation:							
Cashiers	67,610	44,520	1,790	66%	3%	13%	16%
Cooks	47,810	22,820	1,100	48%	2%	7%	10%
Waiters And Waitresses	36,330	12,260	630	34%	2%	4%	6%
Retail Salespersons	55,860	17,420	490	31%	2%	5%	4%
Child Care Workers	10,480	6,500	460	62%	0%	2%	4%
Hosts And Hostesses, Restaurant, Lounge, And Coffee Shop	51,980	9,680	440	19%	2%	3%	4%
Customer Service Representatives	7,150	5,340	380	75%	0%	2%	3%
Combined Food Preparation And Serving Workers	49,980	16,890	370	34%	2%	5%	3%
Nursing, Psychiatric, And Home Health Aides	15,380	7,650	320	50%	1%	2%	3%
Food Preparation Workers	9,580	5,280	290	55%	0%	2%	3%
Laborers And Freight, Stock, And Material Movers, Hand	43,020	9,140	280	21%	2%	3%	3%
Janitors And Building Cleaners	28,490	10,190	220	36%	1%	3%	2%
Maids And Housekeeping Cleaners	22,810	9,370	210	41%	1%	3%	2%
Stock Clerks And Order Fillers	23,440	5,210	170	22%	1%	2%	2%
Production Workers, Incl. Semiconductor Processors	33,750	4,670	170	14%	1%	1%	2%
Miscellaneous Assemblers And Fabricators	33,710	6,100	160	18%	1%	2%	1%
Receptionists And Information Clerks	27,170	5,120	130	19%	1%	2%	1%
First-Line Supervisors/Managers Of Retail Sales Workers	58,810	6,490	110	11%	2%	2%	1%
Personal And Home Care Aides	15,490	4,640	70	30%	1%	1%	1%
Driver/Sales Workers And Truck Drivers	68,450	6,300	70	9%	3%	2%	1%
All Other Occupations	1,699,220	127,900	3,370	8%	71%	37%	30%

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023 The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 7: **2023 Employment and Job Loss by Family Income**

Variable	Total Projected 2023 Private-Sector Employment	Affected Workers	Jobs Lost	% Affected Within Group	Group Employment as % of Total Employment	Group Affected as % of Total Affected	Group Job Loss as % of Total Job Loss
Family Income:							
< $10,000	85,860	30,050	790	35%	4%	9%	7%
$10,000 to $19,999	149,250	42,170	1,050	28%	6%	12%	9%
$20,000 to $29,999	190,620	43,430	1,000	23%	8%	13%	9%
$30,000 to $39,999	258,370	44,290	1,570	17%	11%	13%	14%
$40,000 to $49,999	199,330	25,410	800	13%	8%	7%	7%
$50,000 to $50,999	219,520	29,820	1,120	14%	9%	9%	10%
$60,000 to $74,999	303,110	36,500	1,010	12%	13%	11%	9%
$75,000 to $99,999	367,110	36,970	1,480	10%	15%	11%	13%
$100,000 or more	633,350	54,840	2,390	9%	26%	16%	21%
Mean	$86,110	$62,480					
Median	$66,950	$44,550					

Notes: Data source is July 2015 to June 2018 Current Population Survey Outgoing Rotation Group files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023. The sample size is 6,014 for total employment and 824 for affected workers. All numbers are point estimates.

Table 8: **Poverty Rate for Affected and Private-Sector Workers**

Family Income Relative to Poverty Level	Total Projected 2023 Private-Sector Employment	Affected Workers	Group Employment as % of Total Employment	Group Affected as % of Total Affected
<1.00	128,970	63,130	5%	19%
1.00 to 1.99	223,230	67,170	9%	20%
2.00 to 2.99	395,640	48,060	16%	15%
3.00 to 3.99	421,710	56,540	17%	17%
4.00 to 4.99	396,800	29,630	16%	9%
5.00 and over	877,710	67,800	36%	20%
Total	2,444,060	332,330		

Notes: Data source is 2014 to 2017 March Current Population Survey files. Affected workers include private-sector Missouri wage and salary workers earning between the projected minimum under current law ($8.85) and the proposed minimum ($12.00) in 2023 dollars. Private-sector employment includes all private-sector Missouri wage and salary workers. To estimate employment in 2023, we adjust earnings weights in the 2015–2018 CPS data to reflect employment growth between the survey year and 2023.

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