

Raising the federal minimum wage to \$15 by 2024 would lift pay for nearly 40 million workers

Report • By David Cooper • February 5, 2019

This report is an update to our existing research on the impact of raising the minimum wage to \$15 by 2024. In this version, we have updated our analysis to reflect the phased-in minimum wage increases proposed in the Raise the Wage Act of 2019. This new analysis also utilizes EPI's revised Minimum Wage Simulation Model, which estimates the workforce affected by changes in minimum wages, accounting for all existing state and local minimum wage laws.

Introduction and executive summary

The federal minimum wage was established in 1938, as part of the Fair Labor Standards Act (FLSA), to help ensure that all work would be fairly rewarded and that regular employment would provide a decent quality of life. In theory, Congress makes periodic amendments to the FLSA, increasing the federal minimum wage so that even the lowest-paid jobs in the economy still pay enough for workers to meet their needs, and helping ensure that low-wage workers benefit from economywide improvements in productivity, wages, and living standards.

Yet since the late 1960s, lawmakers have let the value of the minimum wage erode, allowing inflation to gradually reduce the buying power of a minimum wage income. When the minimum wage *has* been raised, the

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increases have been too small to counter the decline in value that has occurred since 1968, when the minimum wage hit its peak in inflation-adjusted terms. In 2018, the federal minimum wage of \$7.25 was worth 14.8 percent less than when it was last raised in 2009, after adjusting for inflation, and 28.6 percent below its peak value in 1968, when the minimum wage was the equivalent of \$10.15 in 2018 dollars.

This decline in purchasing power means low-wage workers have to work longer hours now just to achieve the standard of living that was considered the bare minimum half a century ago. Since the 1960s, the United States has achieved tremendous improvements in labor productivity that could have allowed workers at all pay levels to enjoy a significantly improved quality of life (Bivens et al. 2014). Instead, because of policymakers' failure to preserve this basic labor standard, a parent who is the sole breadwinner for her family and who is earning the minimum wage today does not earn enough through full-time work to bring her family above the federal poverty line.

Restoring the value of the minimum wage to at least the same level it was at a generation ago should be uncontroversial. But such a raise would be insufficient. The technological progress and productivity improvements that the country has achieved over the last 50 years have not benefited all of America's workers. This means lawmakers must strive to enact minimum wage increases that are bolder than the typical legislated increases in recent decades.

On January 16, 2019, Sen. Bernie Sanders (I-Vt.) and Rep. Bobby Scott (D-Va.) announced that they would introduce the Raise the Wage Act of 2019, a bill that would raise the federal minimum wage in six steps to \$15 per hour by 2024. Beginning in 2025, the minimum wage would be "indexed" to median wages so that each year, the minimum wage would automatically be adjusted based on growth in the median wage. The bill would also gradually increase the subminimum wage for tipped workers (or "tipped minimum wage"), which has been fixed at \$2.13 per hour since 1991, until it reaches parity with the regular minimum wage.¹

Who would benefit if the federal minimum wage is raised to \$15 by 2024?

A total of **39.7 million** workers would benefit, including:

- 38.6 million adults ages 18 and older
- 23.8 million full-time workers
- 23.0 million women
- 11.2 million parents
- 5.4 million single parents
- The parents of 14.4 million children

This report begins by providing historical context for the current value of the federal minimum wage and the proposed increase to \$15 by 2024. It then describes the population of workers likely to receive higher pay under an increase to \$15 by 2024, with detailed demographic data that refute a number of common misconceptions about low-wage workers. Next, it describes the provisions of the Raise the Wage Act that would index the minimum wage to the median wage, and gradually eliminate the subminimum wage for tipped workers. The report concludes with a discussion of the research on the likely effects such a raise would have on businesses, employment, and low-wage workers' welfare.

This report finds that:

- Raising the minimum wage to \$15 by 2024 would undo the erosion of the value of the real minimum wage that began primarily in the 1980s. In fact, by 2021, for the first time in over 50 years, the federal minimum wage would exceed its historical inflation-adjusted high point, set in 1968.
- Gradually raising the minimum wage to \$15 by 2024 would directly lift the wages of 28.1 million workers. The average directly affected worker who works all year would receive a \$4,000 increase in annual wage income—equal to a raise of 20.9 percent. Another 11.6 million workers would benefit from a spillover effect as employers raise wages of workers making more than \$15 in order to attract and retain employees.
- All told, raising the minimum wage to \$15 by 2024 would directly or indirectly lift wages for 39.7 million workers, 26.6 percent of the wage-earning workforce.
- Over the phase-in period of the increases, the rising wage floor would generate \$120 billion in additional wages, which would ripple out to the families of these workers and their communities. Because lower-paid workers spend much of their extra earnings, this injection of wages would help stimulate the economy and spur greater business activity and job growth.
- The workers who would receive a pay increase are overwhelmingly adult workers, most of whom work full time in regular jobs, often to support a family.
 - The average age of affected workers is 35 years old. A larger share of workers ages 55 and older would receive a raise (14.6 percent) than teens (9.3 percent). More than half of all affected workers are prime-age workers between the ages of 25 and 54.
 - Although men make up a larger share of the overall U.S. workforce, the majority of workers who would be affected by a raise to the minimum wage (57.9 percent) are women.
 - The minimum wage increase would disproportionately raise wages for people of color—for example, black workers make up 11.8 percent of the workforce but 16.9 percent of affected workers. This disproportionate impact means large shares of black and Hispanic workers would be affected: 38.1 percent of black workers and 33.4 percent of Hispanic workers would get a raise.
 - Of workers who would receive a raise, 60.0 percent work full time, 44.0 percent have some college experience, and more than a quarter (28.3 percent) have

children.

- Nearly four out of every 10 single parents who work (38.9 percent) would receive higher pay, including 43.0 percent of working single mothers. In all, 5.4 million single parents would benefit, accounting for 13.5 percent of those who would be affected by raising the minimum wage to \$15 by 2024.
- The workers with families who would benefit are typically the primary breadwinner for their family, earning an average of 51.9 percent of their family's total income.
- The Raise the Wage Act would disproportionately help those in poverty or close to it. Two-thirds (67.3 percent) of the working poor in America would receive a pay increase if the minimum wage were raised to \$15 by 2024.
- A federal minimum wage increase to \$15 in 2024 would raise wages for the parents of 14.4 million children across the United States, nearly one-fifth (19.6) percent of all U.S. children.
- Indexing the minimum wage to the median wage would ensure that low-wage workers share in broad improvements in U.S. living standards and would prevent future growth in inequality between low- and middle-wage workers.

State tables

Supplemental tables showing characteristics of workers who would be affected by increasing the federal minimum wage to \$15 by 2024 in each of the states and in the District of Columbia are available [here](#).

The minimum wage in context

Since its inception in 1938, the federal minimum wage has been adjusted through legislated increases nine times—from a nominal (non-inflation-adjusted) value of 25 cents per hour in 1938 to the current \$7.25, where it has remained since 2009. These increases have been fairly irregular, varying in size and with differing lengths of time between increases. Yet aside from a few very brief deflationary periods in the post–World War II era, prices have consistently risen year after year. Each year that the minimum wage remains unchanged, its purchasing power slowly erodes until policymakers enact an increase. This haphazard maintenance of the wage floor has meant that low-wage workers of different generations or in different decades have been protected by significantly different wage standards.

Figure A shows the nominal and inflation-adjusted (real) value of the minimum wage since 1938, as well as the value of the minimum wage had it increased at the rate of productivity (specifically, it shows U.S. total economy net productivity indexed to the 1968 inflation-adjusted value of the minimum wage). As the figure shows, in 1950—the first year the minimum wage was increased after the end of World War II—the minimum wage rose

rather dramatically in real terms, nearly doubling overnight. The 1950 increase was followed by regular increases that roughly kept pace with rising labor productivity until the late 1960s. The minimum wage peaked in inflation-adjusted value in 1968, when it was equal to \$10.15 in 2018 dollars. Increases in the 1970s essentially held the real value of the minimum wage in place as high levels of inflation—driven by oil and food price shocks—effectively negated the nominal increases that were enacted at that time. In the 1980s, as inflation remained elevated, the minimum wage was left to deteriorate to 1950s levels. Subsequent increases in the 1990s and late 2000s were not large enough to undo the erosion that had taken place in the 1980s. As of 2018, the federal minimum wage was worth 28.6 percent less than in 1968.²

The dashed lines in the figure—representing projected values for the years 2019–2024—show that the Raise the Wage Act would reverse this unfortunate trend for low-wage workers. A series of six increases over six years—beginning with an increase to \$8.55 in 2019 and ending at \$15 in 2024—would for the first time ever lift the purchasing power of the federal minimum wage above its 1968 peak. In real terms (that is, in 2018 dollars), the minimum wage would reach an estimated value of \$10.37 in 2020 and \$12.98 in 2024. The full increase to \$15 by 2024 represents a 79.0 percent real increase in the minimum wage over its current value, and a 27.9 percent increase in purchasing power from the 1968 peak.³

Such an increase would be the largest raise in the federal minimum wage since 1950, when it was lifted by an inflation-adjusted 85 percent in one year. As such, this increase would be larger than what has been typical in recent decades; however, policymakers will have to enact bolder increases than in the recent past if they intend for low-wage workers to ever fully share in the growth of productivity and the economy that has occurred over the past five decades. As explained by Cooper, Schmitt, and Mishel (2015), increases in average labor productivity represent the potential for higher living standards for workers. In simple terms, if workers, on average, are producing more from each hour worked, there is room in the economy for all workers to get a commensurate raise in wages. This would represent all workers getting a share of economic growth. However, this potential is realized only if productivity gains translate into higher wages. The top line in the figure, which represents the inflation-adjusted value of the minimum wage had it aligned with productivity growth, shows that average labor productivity has more than doubled since the late 1960s. Despite this growth in the country's ability to produce income, pay for workers generally and for low-wage workers in particular has either stagnated or fallen since the 1970s (Bivens et al. 2014). In the case of low-wage workers, hourly pay has declined in real terms since 1979 as a direct result of the erosion of the minimum wage (Bivens et al. 2014).

A higher minimum wage would direct a portion of overall labor productivity gains into higher living standards for low-wage workers. It is not known precisely how much productivity in low-wage work has grown since the 1960s relative to overall productivity. However, low-wage workers today tend to be older (and are therefore likelier to have greater work experience) and are significantly more educated than their counterparts in 1968 (Mishel 2014a). To the extent that workers with more experience and greater education typically earn more than their younger and less-educated counterparts, we

would expect low-wage workers today to earn more, not less, than what they earned in the previous generation. In this context, a pay increase for America's lowest-paid workers of 28 percent over the 56-year span from 1968 to 2024 is indeed modest when compared with projected overall productivity growth of 119 percent over the same period.⁴

The minimum wage is also a mechanism for combating inequality and helping to keep a middle-class lifestyle within reach for all workers. As increased productivity has translated into higher wages for high-wage workers, a rising minimum wage ensures that the lowest-paid jobs also benefit from these improvements. This is the essence of the "fairness" implied in the name of the Fair Labor Standards Act, the act that established the minimum wage.

Figure B shows how the federal minimum wage has compared with the wages of typical U.S. workers over time. The top line shows the median wage of full-time, full-year workers since 1968, adjusted for inflation to constant 2018 dollars. (The dashed line shows projections for 2019–2024.) The bottom line shows the inflation-adjusted value of the federal minimum wage. (The dashed line shows projections for 2019–2024 under the Raise the Wage Act.) In 1968, the median worker in the United States earned \$19.23 per hour—roughly \$9 more per hour than a minimum wage worker at that time. Since then, the gap between the typical U.S. worker and the lowest-paid worker has grown substantially—to more than \$15 per hour as of 2018. The median wage has grown only modestly over the past 50 years—roughly 16 percent—yet the large decline in the value of the minimum wage has left workers at the bottom of the wage scale farther from the middle class than they have been in half a century. Indeed, the declining value of the federal minimum wage is the key driver of the growth in inequality between low-wage workers and middle-wage workers since the late 1970s (see Zipperer 2015a and Mishel 2014b).

The vertical dotted lines in the graph illustrate the gap between the median and minimum wages at different points in time—and show how the Raise the Wage Act would shrink this gap, reducing it to about \$1 dollar more than the difference that existed in 1968. Assuming modest annual real wage growth of 0.5 percent for workers at the median over the next six years, a minimum wage of \$15 in 2024 (which corresponds to \$12.98 in 2018 dollars) would lift the wage floor to just over \$10 less than the wages of a typical U.S. worker—far closer to the gap that existed in the late 1960s.

Figure C presents these same data in a different way. The solid line shows the value of the federal minimum wage as a percentage of the median wage of all full-time, full-year workers. Once again, the gradual decline of the line illustrates how inadequate increases in the federal minimum wage have gradually increased the gap between the lowest-paid workers and those in the middle of the wage distribution. In 1968, the federal minimum wage was equal to just over half the wage of the typical U.S. worker: 52.8 percent of the median wage of all full-time workers. In 2018, the minimum wage is projected to be less than one-third of the wage of the typical worker: 32.4 percent of the median wage of all full-time, full-year workers.

The dashed lines in Figure C project the ratios for 2019–2024 under the Raise the Wage

Act. These projections show that the Raise the Wage Act would reverse this growth in inequality and place the minimum wage as a share of the the median wage above its historical high point. Projections are shown for 2019–2024 under two scenarios: one in which nominal median wages rise at the rate of projected inflation, so that there is no real wage growth, and one in which median wages grow 0.5 percent per year faster than projected inflation from 2018 to 2024, as was assumed in Figure B.⁵ The Raise the Wage Act would lift the minimum wage’s share of the full-time, full-year median wage to 58.0 percent if there is no real wage growth or to 56.4 percent if there is modest real wage growth. Of course, if wages for middle-wage workers grow faster than 0.5 percent above inflation, this percentage will be smaller.

When set at an adequate level, the minimum wage also helps ensure that work is a means to a decent quality of life. In fact, the explicit purpose of the FLSA is to correct “labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well-being of workers.”⁶ The federal poverty line is often cited as a proxy for the level of income needed for the general well-being of families. Researchers and policymakers have long acknowledged that, in reality, the poverty line is woefully inadequate as a measure of what is truly needed for a family to afford the basic necessities.⁷ Yet even against this low bar, the federal minimum wage has rarely produced enough income for regular full-time workers, particularly those with children, to meet their needs.

As shown in **Figure D**, a parent working full time while earning the minimum wage today earns too little to bring his family—even if it is just a family of two—above the federal poverty line. In contrast, at its high point in 1968, the minimum wage was sufficient to keep a family of three out of poverty, but not a family of four. As the ascending dashed line in the figure shows, the Raise the Wage Act would, for the first time ever, bring full-time minimum wage earnings above the poverty line for a family of four.

Demographic characteristics of affected workers

Raising the federal minimum wage to \$15 by 2024 would lift pay for more than one-fourth of American workers. The vast majority of workers who typically benefit from minimum wage increases do not fit the common portrayal of low-wage workers primarily as teenagers from middle-class families, who are working part time after school, or as “stay-at-home” parents—parents whose primary job is caring for their own children—who are picking up some work on the side and whose “secondary earnings” are inconsequential to their family’s financial health.⁸ As the subsequent sections show, increasing the minimum wage to \$15 by 2024 would raise wages for millions of prime-age, full-time workers, many of whom are the primary breadwinners for their families. Detailed demographic information on the affected workforce—including statistics on women, black, Hispanic, Asian, white, and Native American workers—can be found in **Appendix Tables 6–12**.

Figure E shows the number of workers who are likely to receive a raise as the minimum

wage is gradually increased.

In the first step, when the minimum is increased from \$7.25 to \$8.55 per hour, 7.6 million workers are likely to benefit. This includes 2.9 million workers who will directly benefit—meaning their current pay rate is between \$7.25 and \$8.55—as well as 4.7 million who will indirectly benefit, meaning they will likely receive a raise through spillover or “ripple” effects because their current pay rate is just above \$8.55.⁹ Raising the minimum wage typically results in wage increases for workers further up the wage ladder because employers want to maintain some progression in their internal pay scales (Wicks-Lim 2006).

With each successive increase, the number of workers who would benefit grows: At each step, all those workers whose wages were raised in the previous step receive *another* raise, and additional workers whose wages were “too high” to benefit from previous step increases now benefit as well. In the second year, as the minimum wage is lifted to \$9.85 per hour, the number of workers who would directly receive a raise grows to 7.3 million; another 8.3 million would indirectly receive a raise. When the minimum wage increases to \$11.15 in year three, 14.0 million would be directly affected, along with 7.5 million who would be indirectly affected. In the fourth year, 2022, the increase to \$12.45 per hour would raise wages directly for 18.4 million workers and indirectly for another 8.6 million workers. The increase to \$13.75 per hour in year five would directly lift the pay of 22.1 million workers and indirectly spur wage increases for another 11.8 million workers. In the final year, when the minimum wage is raised to \$15 per hour, 28.1 million workers would directly benefit and an additional 11.6 million would likely receive a raise indirectly as employers adjust overall pay ladders. In total, the increase to \$15 would lift wages for 39.7 million workers—26.6 percent of all U.S. workers. Detailed figures on the workers affected and resulting wage increases in each step can be found in **Appendix Tables 1 and 2**.

This minimum wage increase would be larger than any other increase that has been enacted in the United States. In addition to the larger breadth of affected workers, the potential increase in wages for those workers would be larger than any previous increase. Over the full six-year phase-in period, affected workers would receive over \$120 billion in additional annual wages, assuming no change in the number of work hours for these workers.¹⁰ Once the increase is fully phased in, the average affected worker who works year-round would earn roughly \$3,000 more each year than she does today. Among only those workers who directly benefit, the average year-round worker would get a boost to his or her annual earnings of about \$4,000.

The following sections highlight the demographic characteristics—age, sex, race/ethnicity, family composition, hours of work, education, family income, poverty status, and geography—of the workers who would be affected. We count as “affected” both those directly and indirectly affected. The calculations are estimates for 2024. Tables containing all the underlying demographic information, including discrete numbers of affected workers by demographic category, are presented in Appendix A.

Age

The low-wage workers likely to benefit from an increase to the minimum wage are frequently characterized as being primarily teenagers and almost entirely young. Although this would not justify paying them wages significantly lower than those paid to their counterparts a generation ago, this stereotype is also false—and particularly so for beneficiaries of a minimum wage increase to \$15. While some low-wage workers are indeed young, the vast majority of workers who would benefit from increasing the federal minimum wage to \$15 are adults age 20 or older; only a small fraction are teenagers. As shown in the top graph in **Figure F**, teens account for a mere 9.3 percent of the workers who would benefit; over 90 percent of affected workers are 20 years old or older.

The second graph in Figure F breaks down the age distribution of affected workers even further, showing that more than two-thirds of affected workers are at least 25 years old. In fact, workers ages 55 and older make up a larger share of workers who would receive a raise (14.6 percent) than do teens (9.3 percent), and workers ages 40 and older make up a larger share of those who would receive an increase (33.9 percent) than do workers under age 25 (32.5 percent). Among affected workers, the average age is 35 years old.¹¹

Gender

While raising the minimum wage would benefit both women and men, it would disproportionately raise pay for women. As shown in the pie chart in **Figure G**, women make up 57.9 percent of affected workers. In comparison, women make up only 48.5 percent of the total U.S. workforce.¹²

The magnitude of the impact on women is shown in the bar chart in Figure G. Among all wage-earning women in the United States, 31.7 percent—nearly one in three working women—would receive a raise under a federal minimum wage increase to \$15 by 2024. In comparison, 21.7 percent of all wage-earning men would benefit—not as large a share as for women, but still more than one-fifth of all working men.

The bar chart in Figure G also shows, by gender, the shares of workers who would benefit from a minimum wage increase by family status and for workers of color. Among working parents with children in their home, 30.2 percent of working mothers would receive a raise, as would 13.4 percent of working fathers. Among single parents, the effects are more dramatic: 43.0 percent of all single mothers would receive a raise if the federal minimum wage were increased to \$15 by 2024, as would nearly a third (29.4 percent) of single fathers. Large shares of minority workers would also benefit: 35.6 percent of women of color would receive a raise, along with 27.9 percent of men of color.

Race/ethnicity

As shown in the upper section of **Figure H**, the majority—52.2 percent—of workers who would benefit from increasing the minimum wage are white, non-Hispanic workers.

Hispanic workers of any race make up the next largest share, at just under a quarter (24.2 percent) of the total affected population. Black workers make up 16.9 percent of the total, and Asian workers and workers of other races/ethnicities make up 6.8 percent of the total.

Although workers of color are a minority of those who would benefit, they do benefit at significantly higher rates. The lower section of Figure H shows the share of each racial/ethnic group that would receive a raise if the federal minimum wage were increased to \$15 by 2024. As the figure shows, 38.1 percent of all black workers would receive higher pay, as would a third (33.4 percent) of Hispanic workers. Nearly one in four (23.2 percent) of white, non-Hispanic workers would get a raise—a slightly higher share than that of Asian workers and those of other races/ethnicities, among whom 19.6 percent would receive higher pay.

Education

Just as there is a common misperception that low-wage workers are mostly young, there is also a common misperception that low-wage workers have low education levels. The reality is that, as shown in **Figure I**, close to half (44.0 percent) of workers who would be affected by an increase to the minimum wage have at least some college experience, and about one in seven (13.8 percent) have an associate degree or higher.

The lower bar graph in Figure I shows the share of workers at each educational level who would receive a raise if the federal minimum wage were increased to \$15 by 2024. Not surprisingly, workers with lower levels of education are far more likely to be affected: More than half (51.1 percent) of workers with less than a high school education would receive a pay increase. Still, large shares of those who have completed high school and sought further education would also benefit. More than a third (34.4 percent) of workers with some college experience, yet no degree, would receive a raise, as would more than one-fifth (21.5 percent) of workers with an associate degree.

Hours of work

Many workers who would benefit from a minimum wage increase also work longer hours than commonly thought; they are not simply working part-time or after-school jobs. As shown in the upper section of **Figure J**, 60.0 percent of affected workers work full time (at least 35 hours per week). Another 29.5 percent work between 20 and 34 hours per week, and only 10.5 percent work fewer than 20 hours per week.

Still, those workers who are not full time are more likely to benefit. The lower bar chart in Figure J shows the share of each group of workers by work-hour category who would receive a raise if the minimum wage were increased to \$15. Roughly half (48.4 percent) of workers who work fewer than 20 hours per week would receive a raise, as would 52.8 percent of those working between 20 and 34 hours per week. Among full-time workers, one in five (20.1 percent) would receive a raise.

Many individuals who work less than full time are not opting for fewer hours by choice, but

are limited by a lack of available work, or because circumstances—such as the need to care for a family member, or a lack of adequate work supports (access to child care, paid leave, or flexible work schedules)—prevent them from seeking full-time employment (Golden 2016). For these workers, an increase in their hourly rate of pay is arguably even more important, not only because of the increased earnings but also because those increased earnings could provide the resources needed (e.g., money for child care) to allow them to seek more hours of work.

Family income

Again contrary to some portrayals, the majority of workers who would benefit from increasing the minimum wage come from families of modest means. That being the case, these workers' wages are likely to constitute an essential contribution to their household's welfare—rather than simply being “extra” income supplementing a much higher paycheck from a spouse or parents. As shown in **Figure K**, 76.0 percent of the workers who would receive a raise if the minimum wage were increased to \$15 by 2024 have total family incomes of less than \$75,000 per year. More than half of affected workers (59.5 percent) have total family incomes below \$50,000 per year.

Some argue that the minimum wage is “poorly targeted” as a tool for alleviating poverty or improving low-income households' welfare because some of the workers who would benefit from a minimum wage increase come from middle-class families. It is false that raising the minimum wage does not reduce poverty—as is explained in the next section—but assessing only the minimum wage's poverty-reducing effects also disregards an important aspect of the policy. The minimum wage provides protection to workers at all levels of family income—this is a feature, not a bug, of the law. As a labor standard, the minimum wage prevents exploitation of workers, regardless of their family income level. No worker, no matter how wealthy his or her family, should have to work for unacceptably low wages. Moreover, the fact that some low-wage workers *do* come from middle-class families underscores the point that the erosion in the minimum wage's value over the past 45 years has hurt both low- and middle-income families.

Poverty status

Some opponents of raising the minimum wage contend that as a policy for reducing economic hardship, the minimum wage is ineffective because many poor people do not work. This is false. As explained in Gould, Davis, and Kimball 2015, the majority of poor people ages 18 to 64 who *can* work (i.e., they are not in school, retired, or disabled) *do* work, and over 40 percent work full time. Moreover, increasing the minimum wage is an effective tool for reducing poverty. In a comprehensive review of the literature on the minimum wage's poverty-reducing effects, Dube (2018) finds that nearly all studies of this relationship show that raising the minimum wage significantly reduces poverty rates. Dube's study also finds that for every 10 percent increase in the minimum wage, over the long run, the poverty rate is expected to decline by 5.3 percent.

Our findings show that the Raise the Wage Act would disproportionately help workers in poverty or near the poverty line. As shown in the top portion of **Figure L**, nearly half (46.7 percent) of all workers who would be affected by raising the minimum wage to \$15 by 2024 have total family incomes within 200 percent of the poverty line. Another 33.1 percent have family incomes between 201 and 400 percent of the poverty line.

Indeed, workers living below or near the poverty line are far more likely than higher-income workers to get a pay increase if the minimum wage is raised. The bar chart in the bottom section of Figure L shows that two-thirds (67.3 percent) of all the working poor would receive higher wages as a result of the Raise the Wage Act. More than half (53.6 percent) of those who are “near poor,” with incomes between 101 and 200 percent of the poverty line, would also receive a raise.

Family status and children

Many of the workers who would benefit from increasing the minimum wage are supporting families and children. As shown in the upper section of **Figure M**, nearly one-third (30.8 percent) of the affected workers are married, and more than one-quarter (28.3 percent) of affected workers have children. In total, over 11.2 million parents would receive higher pay under a minimum wage increase to \$15 by 2024. Of these, 5.4 million are single parents, accounting for 13.5 percent of those who would be affected by raising the minimum wage. While this is a relatively small portion of the total beneficiaries, it is larger than their 9.2 percent share of the overall labor force. In other words, single parents would disproportionately benefit from raising the minimum wage.

The lower bar chart in Figure M shows the shares of workers by family type who would be affected. Among married parents who work, 15.6 percent would receive a raise from increasing the minimum wage to \$15 by 2024. Single parents who work would benefit at more than double that rate—38.9 percent would receive higher pay if the minimum wage were raised.

The parents receiving higher pay provide for 14.4 million children across the United States, nearly one-fifth (19.6 percent) of all U.S. children (see **Appendix Table 4**). It is also worth noting that many children are raised by an adult who is not their biological or adoptive parent; these households are not accounted for in these numbers. Thus, the full benefit to children of a \$15 minimum wage is arguably better captured by looking at the impacts for all children with at least one adult in their household who receives a raise—regardless of whether that person is their biological or adoptive parent. There are a total of 17.0 million children (23.2 percent of all U.S. children) with at least one adult in their household—e.g., a parent, grandparent, caretaker, or adult sibling—who will benefit from raising the federal minimum wage to \$15 by 2024.

The importance of affected workers' pay to their family's total incomes

Low-wage workers are sometimes characterized as “secondary earners,” suggesting that their work earnings are discretionary or inconsequential to their family's financial health. The data show that this is not at all the case. Roughly half of all workers who would be affected by raising the minimum wage to \$15 by 2024 are either married or have children, and these workers earn, on average, 51.9 percent of their family's total income. Of these workers with families, 32.2 percent are the sole providers of their family's income.¹³

Geography

Not surprisingly, the share of workers in each state who would be affected by a federal minimum wage increase varies considerably, largely due to the fact that many states, and a growing number of cities and counties, have already enacted minimum wage increases that will have lifted a sizeable share of their state or local workforces out of the affected range.¹⁴ As the increases in those states' and localities' minimum wages “ripple up” through the wage distribution, the number of workers who would be affected by the enactment of a higher federal minimum by 2024 is reduced.

Figure N shows the share of each state's resident workforce that would be affected if the federal minimum wage were raised to \$15 by 2024. Because California and Massachusetts will already have state minimum wages of \$15 in 2023, very few California or Massachusetts workers would be affected by the change in the federal minimum wage—although a small number who commute to out-of-state jobs would be impacted. The District of Columbia is raising its minimum wage to \$15 in 2020 and so few workers in the district would benefit from the new federal minimum. However, a relatively small number of workers in both D.C. and Massachusetts—those who customarily receive tips as a portion of their wages—will benefit from the Raise the Wage Act's increase in the minimum wage for tipped workers. Tipped workers in California are already paid the full minimum wage before tips, so they will not be affected by the federal policy change. New York is raising the minimum wage in New York City, Long Island, and Westchester County to \$15 before 2024, but not in the upstate region of the state; upstate workers would therefore still be affected by the federal change (as would tipped workers throughout the state). In total, 12.5 percent of New York workers would receive a raise as a result of the rising federal minimum wage and tipped minimum wage.

Among states that will not already have a \$15 minimum wage by 2024, the smallest impacts would be in Washington and Minnesota, where just over 15 percent of the workforce would receive a raise. Washington's state minimum wage is scheduled to go to \$13.50 in 2020 with automatic adjustments for inflation thereafter, and the city of Seattle raised its minimum wage to \$15 for all businesses as of January 2019. In Minnesota, the state minimum wage is \$9.86 as of January 2019, and it will be adjusted for inflation in subsequent years; however, both Minneapolis and St. Paul will have local \$15 minimum wages by 2022. Because the Twin Cities make up the majority of the state labor market,

the changing federal minimum has less of an impact on the state as a whole.

In contrast, the share of the workforce that would be impacted by a federal increase is significantly larger in states with low minimum wages—or, in some cases, no minimum wage—such as in Arkansas, North Carolina, Mississippi, Louisiana, and Idaho.¹⁵ Workers in the Southeast, in particular, are most likely to see a pay increase if the federal minimum wage is raised. The largest impact would be in Mississippi, where more than four in 10 workers (41.6 percent) are likely to be affected by the bill, and the average affected worker would receive a 20 percent raise—the largest average raise of any state’s workforce.

Other aspects of the proposal

In addition to the six phased-in increases from 2019 to 2024, the Raise the Wage Act would also “index” the minimum wage to the median wage and (as mentioned in the previous section) would gradually phase out the subminimum wage for tipped workers. This section explains how these two provisions would benefit workers.

Indexing to the median wage

After the minimum wage reaches \$15 in 2024, the Raise the Wage Act would index the minimum wage to the median wage so that in subsequent years, as wages throughout the workforce rise, the minimum wage would automatically be lifted to maintain its value relative to the median wage. This is different from how most minimum wage indexing has been done in the past. Currently 17 states and the District of Columbia have enacted indexing of their state minimum wages to changes in prices, typically as measured by changes in the Consumer Price Index (CPI). (The automatic annual adjustments this indexing mandates have not yet taken effect in all of these states.) Indexing to prices prevents any erosion in the minimum’s real (inflation-adjusted) value, thereby ensuring that low-wage workers can still afford the same amount of goods and services year after year. This is certainly advantageous relative to having no indexing; however, indexing to prices effectively legislates that the lowest-paid workers never see any material improvement in their quality of life. The real value of the minimum wage remains frozen, regardless of increases in overall labor productivity or technological advances that improve the country’s ability to improve living standards.

In contrast, linking the minimum wage to the median wage ensures that low-wage workers do not lose ground relative to typical workers. As Zipperer (2015b) explains, indexing to the median wage “links the minimum wage to overall conditions in the labor market.” To the extent that productivity improvements and technological progress result in higher wages for the typical U.S. worker, so too will minimum wage workers see their hourly pay rise. It is of course true that both low- and middle-wage workers have seen their hourly pay lag relative to productivity growth in recent decades. A stronger minimum wage ensures that the vast majority of U.S. workers share a common trajectory of wage growth. But the minimum wage needs to be complemented by other policies to ensure that wage growth for this entire vast majority rises in step with overall productivity growth.¹⁶

Another good reason for indexing to the median wage rather than to price indices is that wages are less volatile than prices. Price indices, such as the CPI, are subject to unpredictable changes in the price of food and energy that may be driven by temporary events, such as political instability or natural disasters. Wages, on the other hand, tend to be more stable, rising as fast—or faster—than prices over the long term, and with greater predictability for employers and employees alike (see Zipperer 2015b or Shierholz 2009).

Eliminating the subminimum wage for tipped workers

Under current federal law, employers of workers who customarily receive tips are only required to pay their tipped staff a base wage of \$2.13 per hour, provided employees' weekly income from tips plus their base wage equates to an hourly rate of at least the minimum wage. As explained by Allegretto and Cooper (2014), this separate wage standard results in a host of problems for tipped workers, including dramatically higher poverty rates and greater reliance on public assistance. Contrary to a common perception that waitstaff and bartenders make lavish incomes from tips, the vast majority of tipped work is low-paying. From 2014 to 2016, the median wage for tipped workers, including earnings from tips, was \$11.00 per hour—37 percent less than the median wage of workers who do not rely on tips (Cooper 2017). Because the majority of tipped workers' pay is from tips—as opposed to a regular paycheck—weekly income can be highly erratic and subject to a greater incidence of wage theft (Allegretto and Cooper 2014).¹⁷ Moreover, the fact that most tipped workers are women means that the inequities produced by this separate wage system exacerbate existing gender-based wage inequality (see National Women's Law Center 2016).

The Raise the Wage Act would raise the subminimum wage for tipped workers over nine years until it reaches parity with the full minimum wage, as is currently the case in seven states.¹⁸ These seven states have significantly lower poverty rates among tipped workers than the states where tipped workers are paid a lower base wage. At the same time, growth in the restaurant industry has been as strong, if not stronger, in the states where tipped and nontipped employees are treated equally. This suggests that requiring employers to pay regular wages to tipped workers has had no significant negative effect on the growth of the restaurant industry (Allegretto 2013).

Effects on job growth and workers' welfare

Whenever any minimum wage increase is proposed, concerns are always raised about the impact such a policy change might have on the employment of low-wage workers.¹⁹ Given this, it is not surprising that the effect of the minimum wage on employment has been one of the most heavily studied topics in economics, particularly since the 1990s. A full review of that literature is beyond the scope of this report; Schmitt (2013), Kuehn (2014), and

Wolfson and Belman (2016), however, offer useful summaries.

The overwhelming conclusion of this literature has been that past increases in minimum wages have had little to no effect on employment. In their meta-analysis of 739 estimated effects from 37 published studies on the minimum wage and employment between 2000 and 2015, Wolfson and Belman (2016) find “no support for the proposition that the minimum wage has had an important effect on U.S. employment.” Moreover, Allegretto et al. (2017) find that studies that employ the most credible research designs (comparing similar jurisdictions that have raised their minimum wage with those that have not) also find little to no effect on employment. In other words, both the average study and the highest-quality studies find little to no impact of the minimum wage on employment.

In what has been hailed as the most important work on the minimum wage in 25 years, Cengiz et al. (2019) use a novel methodology to estimate the employment effect of minimum wages by examining 138 state minimum wage changes that occurred in the United States between 1979 and 2014.²⁰ They find that even with minimum wages rising as high as 55 percent of the median wage, there was no evidence of any reduction in the total number of jobs for low-wage workers.²¹ Moreover, the researchers examined effects specifically for workers without a college degree, underrepresented minorities, and young workers—groups that might have greater difficulty in finding work—and still found no evidence of substantial job losses.

This large body of research is useful for understanding the appropriateness of the minimum wage level proposed by the Raise the Wage Act of 2019. Raising the federal minimum wage to \$15 by 2024 would bring the U.S. wage floor above its historical high point, both in absolute terms and relative to the wages of middle-wage workers. As noted in Figure C in the first section of this report, a minimum wage of \$15 would likely equal between 56 and 58 percent of the full-time median wage in 2024—just slightly beyond the range of minimum wages that have been studied. Given that research on the existing experience of the minimum wage in the United States has never led to evidence of meaningful negative effect on employment, Cooper, Mishel, and Zipperer (2018) explain that raising the minimum wage beyond historical experience is, in fact, the optimal policy choice. If existing research has shown that prior minimum wage increases have had no clear, detectable downside, then any increase that does not exceed past experience would leave money on the table that could otherwise have been earned by low-wage workers.

Furthermore, Cooper, Mishel, and Zipperer go on to explain that the narrow focus on potential employment effects of minimum wage increases is a deeply flawed way of evaluating the merits of the policy, since what matters most is not whether the minimum wage changes someone’s work status at any given time, but how the policy affects his or her total earnings. For example, even in the scenario where a minimum wage increase had a negative effect on job growth, there is no reason to assume that anyone would be worse off. Any reduction in job growth is implicitly a reduction in the total hours worked by low-wage workers. Because there is a high degree of churn in the low-wage labor market—i.e., low-wage workers cycle in and out of jobs frequently—it is likely that any reduction in hours would be spread across many low-wage workers, with some working fewer hours

per week and others having longer spells between jobs throughout the year. However, because they will all be earning more per hour than they would have otherwise, it's entirely possible that few, if any, workers will actually see a reduction in their total annual take-home pay.

Indeed, two recent studies show that regardless of any potential employment changes, minimum wage increases have had clear positive effects on the total annual incomes of low-wage workers and their families. Dube (2018) shows that minimum wage increases raised family incomes at the bottom of the income distribution. Using high-quality administrative data, Rinz and Voorheis (2018)—researchers at the U.S. Census Bureau—find that minimum wage increases raised individual incomes and that those income gains accelerated for up to five years after the policy change. In other words, any potential hours reductions or other decreases in employment that might have resulted from past minimum wage increase were apparently not large enough to reduce overall annual earnings for low-wage families.

Conclusion

Since its inception during the Great Depression, a strong minimum wage has been recognized as a key labor market institution that, if effectively maintained, can provide the foundation for equitable and adequate pay for American workers. However, the failure to regularly and adequately raise the federal minimum wage over the past five decades is one of several policy failures that have denied a generation of American workers more significant improvement in their quality of life. In fact, the erosion of the minimum wage has left low-wage workers today earning significantly less than their counterparts 50 years ago.

Raising the federal minimum wage to \$15 by 2024 would take its value to a level that finally ensures full-time work is a means to escape poverty, and it would provide tens of millions of America's lowest-paid workers with a substantial, long-overdue improvement in their standard of living. Past increases in the minimum wage have been inadequate to preserve low-wage workers' standard of living, let alone allow them to share in the broader benefits of rising productivity and a growing economy. In contrast, the Raise the Wage Act of 2019 is a bold proposal that would achieve these goals.

Automating future increases by indexing to growth in the median wage would ensure workers at the bottom of the wage scale are never again left behind as productivity improvements lead to broader improvements in wages. In addition, gradually raising and eliminating the separate lower wage for tipped workers would eliminate the disparities in labor protections and living standards that currently exist between tipped and nontipped workers. These actions would significantly improve the well-being of millions of American workers and their families, and they would help to reduce long-standing race- and gender-based wage inequities.

Decades of research have shown that past minimum wage increases have had their intended effect—raising incomes for low-wage workers with little, if any, negative impact

on their employment. As lawmakers propose lifting the U.S. wage floor to new heights, this research affirms their ambition. Anything less would be needlessly timid and would potentially deprive millions of low-wage workers of earnings they could have had with little cost.

About the author

David Cooper joined the Economic Policy Institute in 2011. As senior economic analyst, he conducts national and state-level research, with a focus on the minimum wage, employment and unemployment, poverty, and wage and income trends. Cooper is also the deputy director of the Economic Analysis and Research Network (EARN), a national network of over 60 state-level policy research and advocacy organizations.

Cooper has testified at numerous state and municipal hearings on the challenges facing low-wage workers and their families. His analyses on the impact of minimum wage laws have been used by policymakers and advocates in city halls and statehouses across the country as well as in Congress and the White House. He has been interviewed and cited by numerous local and national media, including *The New York Times*, *The Washington Post*, *The Wall Street Journal*, CNBC, and NPR.

He holds Master of Public Policy and Bachelor of Arts degrees from Georgetown University.

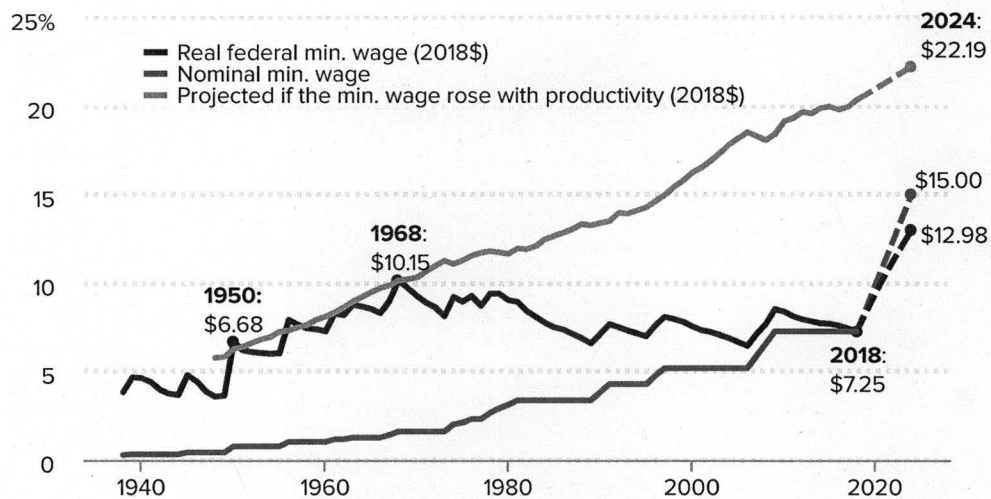
Figures and appendix tables

Figures A–N and Appendix Tables 1–12 appear on the following pages.

Figure A

Neglect has left the minimum wage far below what the economy could afford

Real and nominal values of the federal minimum wage, and value if it had risen with total economy productivity, 1938–2018, and projected values under the Raise the Wage Act of 2019, 2019–2024



Notes: Inflation measured using the CPI-U-RS. Productivity is measured as total economy productivity net depreciation.

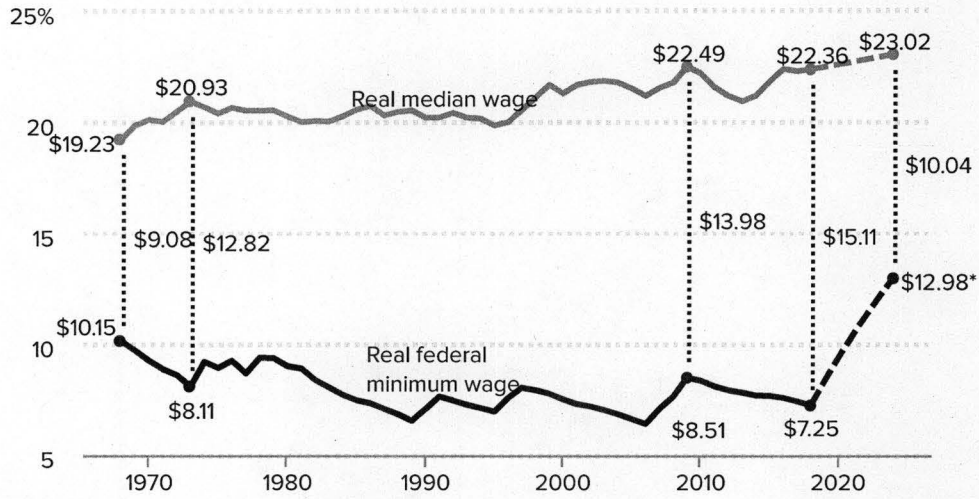
Sources: EPI analysis of the Fair Labor Standards Act and amendments and the Raise the Wage Act of 2019. Total economy productivity data from the Bureau of Labor Statistics Labor Productivity and Costs program. Average hourly wages of production nonsupervisory workers from the Bureau of Labor Statistics Current Employment Statistics.

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Figure B

The gap between the minimum wage and the median wage has grown substantially—the Raise the Wage Act would narrow the gap

Real values of the federal minimum wage and the full-time, full-year median wage, 1968–2018; projected values for 2019–2024 under the Raise the Wage Act; and dollar amount of the gap between the minimum and the median, selected years (2018\$)



* \$15 in 2024 is equivalent to \$12.98 in 2018 dollars.

Notes: Inflation measured using the CPI-U-RS. The 2018 full-time, full-year median wage is estimated by growing the 2017 full-time, full-year median wage at the growth rate of average hourly earnings of production workers from 2017 to 2018. This value is then projected at the growth rate of CPI plus 0.5 percent.

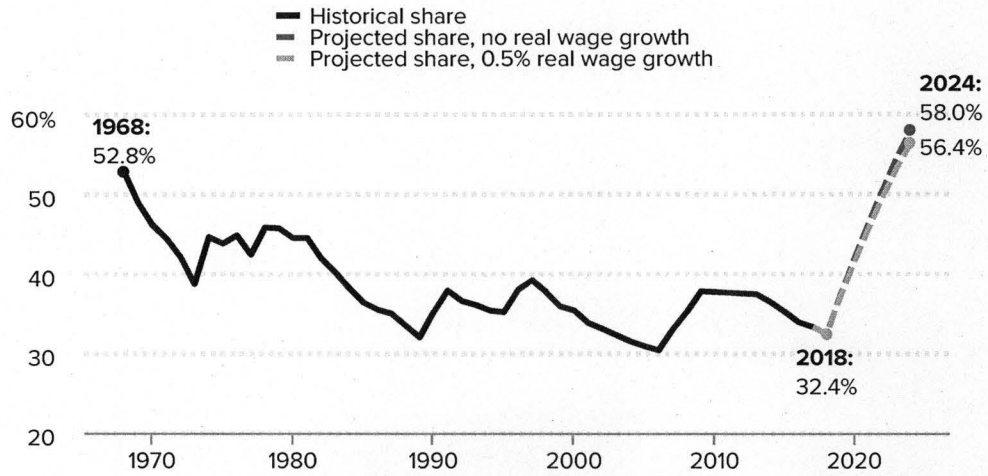
Source: EPI analysis of the Fair Labor Standards Act and amendments, the Raise the Wage Act of 2019, and the Current Population Survey (CPS) Annual Social and Economic Supplement microdata

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Figure C

The Raise the Wage Act would eliminate decades of growing wage inequality between the lowest-paid and the typical U.S. worker

Federal minimum wage as a share of the national full-time, full-year median wage, 1968–2018 (actual) and 2019–2024 (projected under the Raise the Wage Act of 2019 for two scenarios)



Notes: Inflation measured using the CPI-U-RS and CBO CPI-U projections. Projected median real wage growth assumes either none or 0.5% annual.

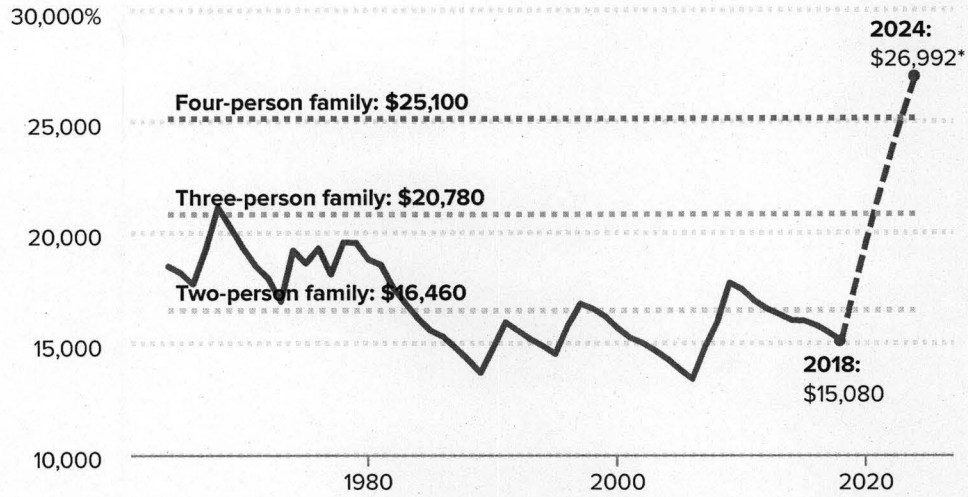
Source: EPI analysis of the Fair Labor Standards Act and amendments, the Raise the Wage Act of 2019, and Current Population Survey (CPS) Annual Social and Economic Supplement microdata

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Figure D

At \$15 in 2024, the federal minimum wage would no longer be a poverty wage

Annual wage income (2018\$) for a full-time, full-year minimum wage worker, compared with various poverty thresholds, 1964–2018 (actual) and 2019–2024 (projected under the Raise the Wage Act of 2019)



* Annual income of \$26,992 is based on an hourly wage of \$12.98, which is the 2018\$ equivalent of \$15 in 2024.

Notes: Inflation measured using the CPI-U-RS. Inflation projections calculated using CBO 2018.

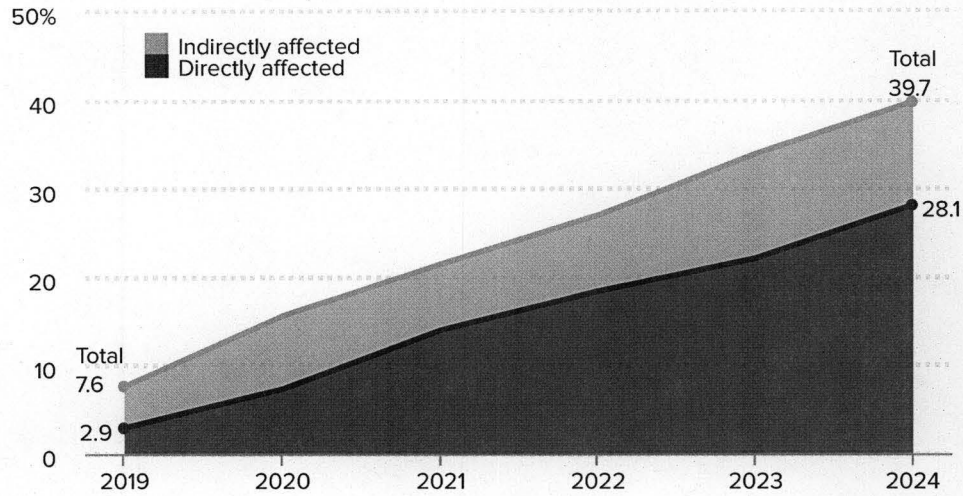
Source: EPI analysis of the Fair Labor Standards Act and amendments, the Raise the Wage Act of 2019, and CBO 2018

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Figure E

The Raise the Wage Act would lift pay for more than a quarter of all U.S. workers

Number of workers (in millions) who would benefit if the federal minimum wage were increased to \$15 by 2024



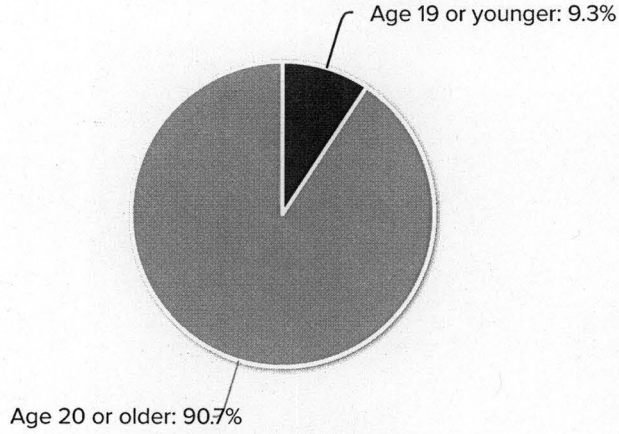
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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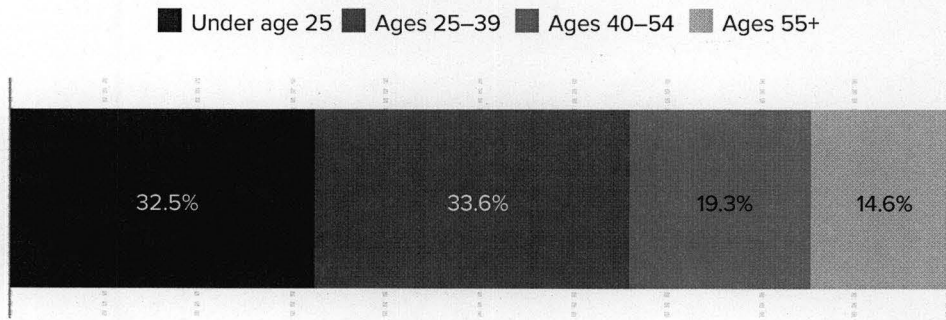
Figure F

The vast majority of workers who would benefit from an increase to the minimum wage are not teens—most are 25 or older

Projected share of workers benefiting from an increase to \$15 by 2024 who are 19 or under versus 20 or older



Share of affected workers who are in each age category



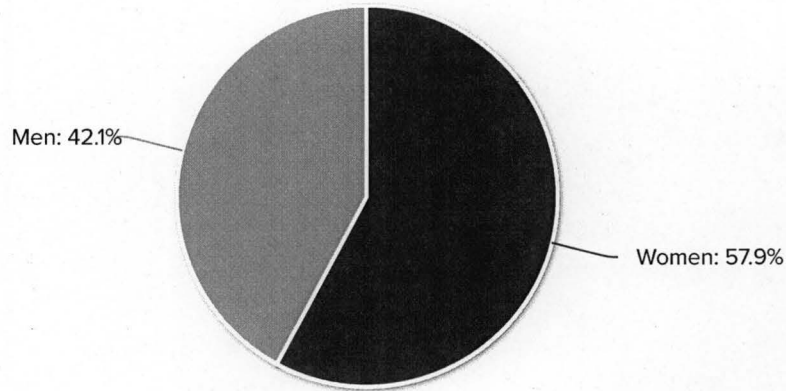
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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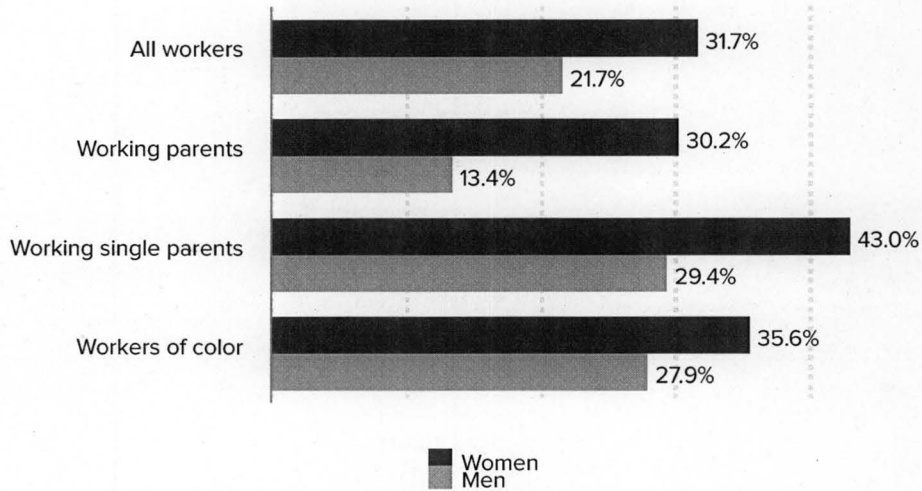
Figure G

Women make up a majority of workers who would benefit from a minimum wage increase to \$15 by 2024; single parents and women of color would also benefit disproportionately

Shares of affected workers, by gender



Shares of demographic groups that would benefit, by gender



Note: "Workers of color" includes workers of African American, Hispanic, Asian, and other nonwhite races/ethnicities.

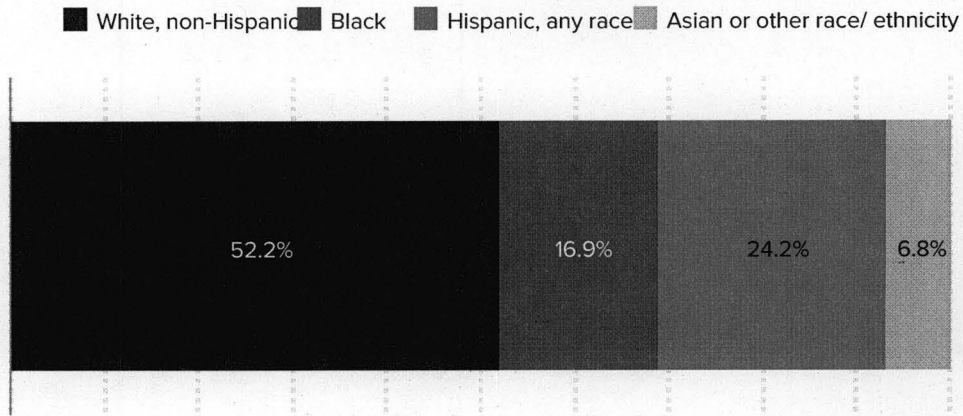
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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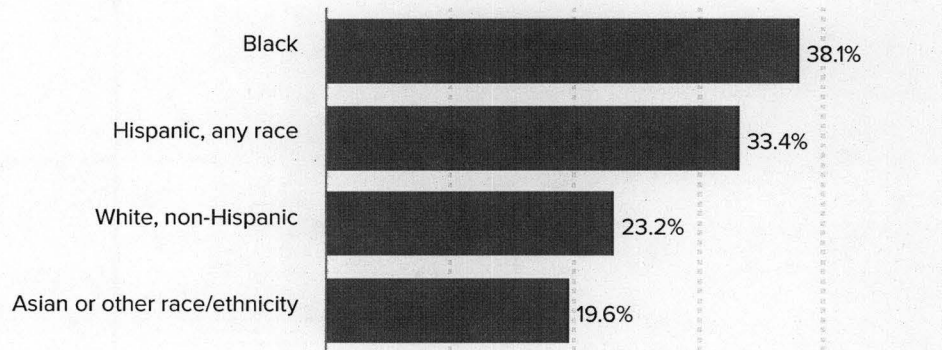
Figure H

White workers make up a majority of those who would benefit from the Raise the Wage Act, although workers of color would benefit disproportionately

Share of affected workers who are in each major racial/ethnic group



Share of workers in each racial/ethnic group that would benefit



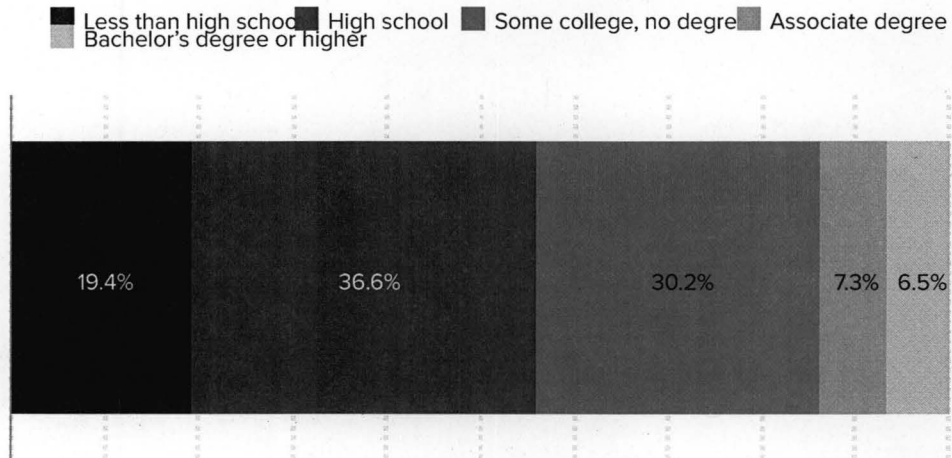
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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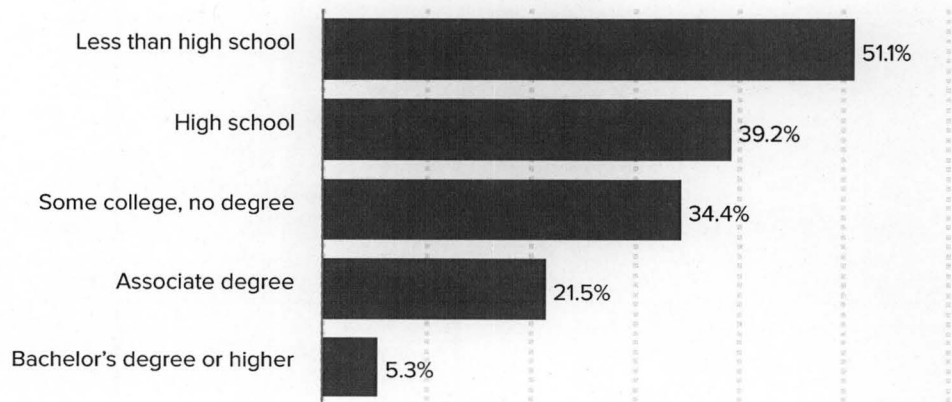
Figure I

Among those workers who would benefit from a minimum wage increase to \$15 by 2024, four in 10 have some college experience

Share of affected workers who are in each educational attainment group



Share of workers in each educational attainment group that would benefit



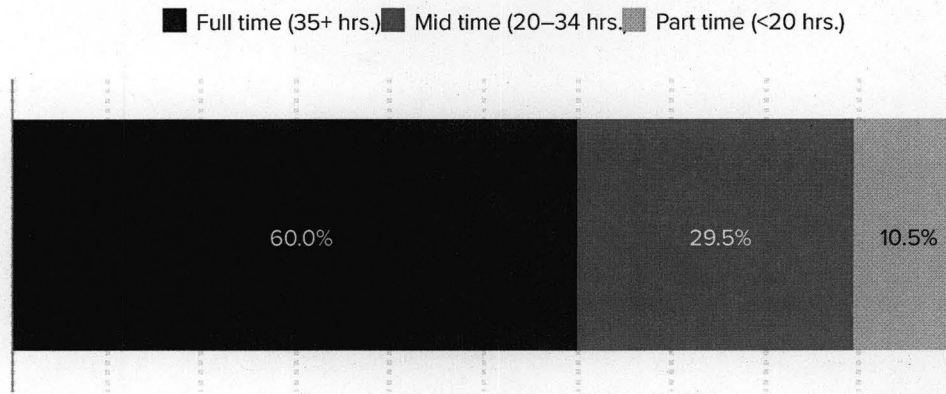
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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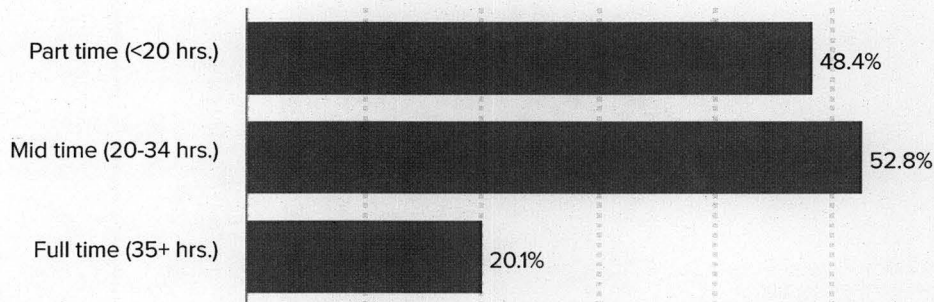
Figure J

Among those workers who would benefit from a minimum wage increase to \$15 by 2024, most work full time

Shares of affected workers who work full, mid, or part time



Share of each work-hour group that would benefit



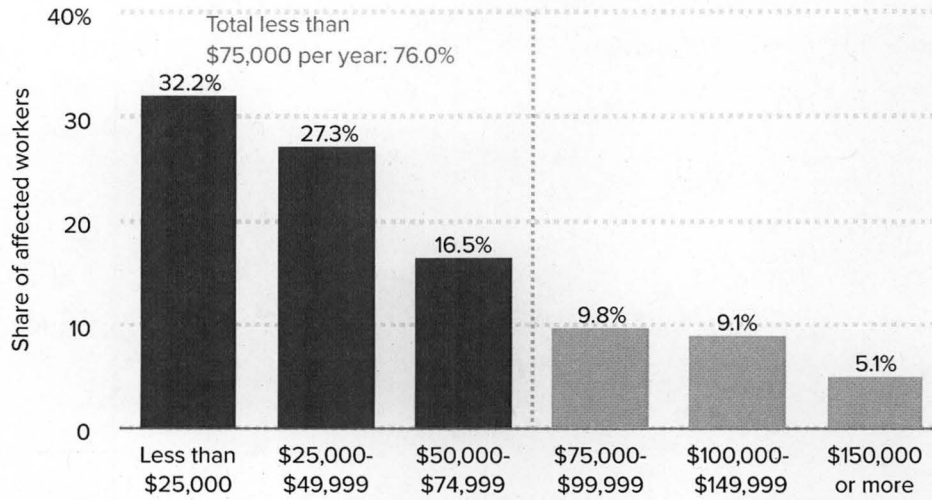
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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Figure K

Among those workers who would benefit from a minimum wage increase to \$15 by 2024, most come from families with modest incomes

Share of affected workers who are in each family income group



Note: Percentages may not sum to 100% due to rounding.

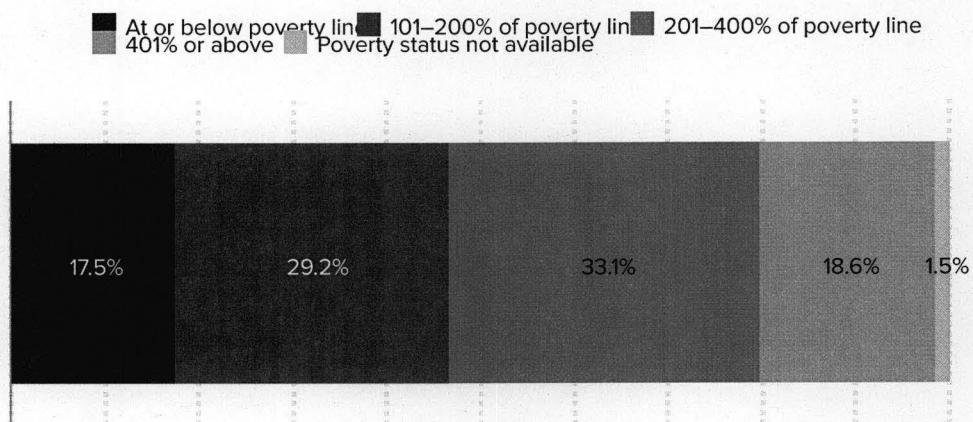
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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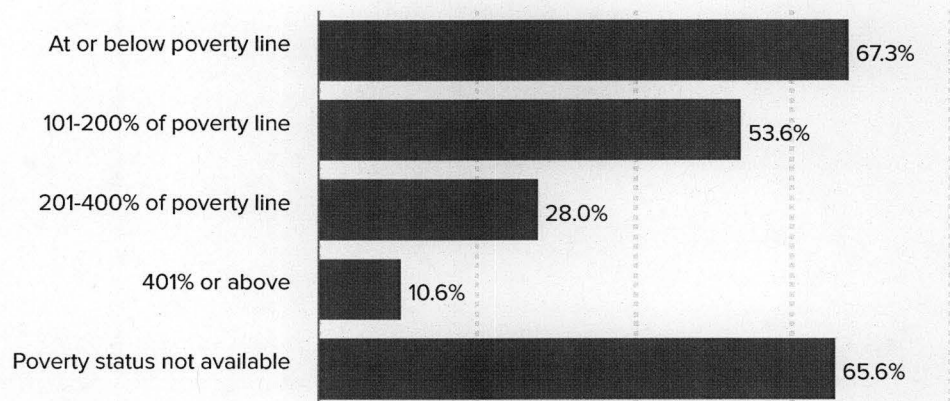
Figure L

The Raise the Wage Act would disproportionately help workers in poverty

Share of affected workers by their family's income-to-poverty ratio



Share of workers in each income-to-poverty group that would get a raise



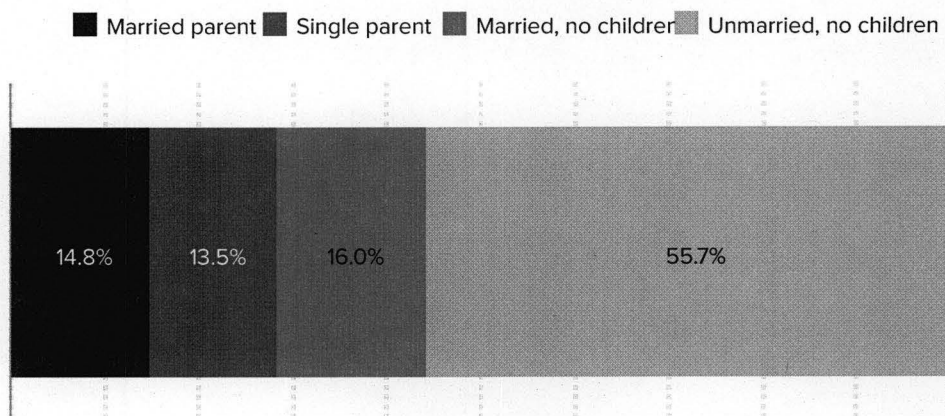
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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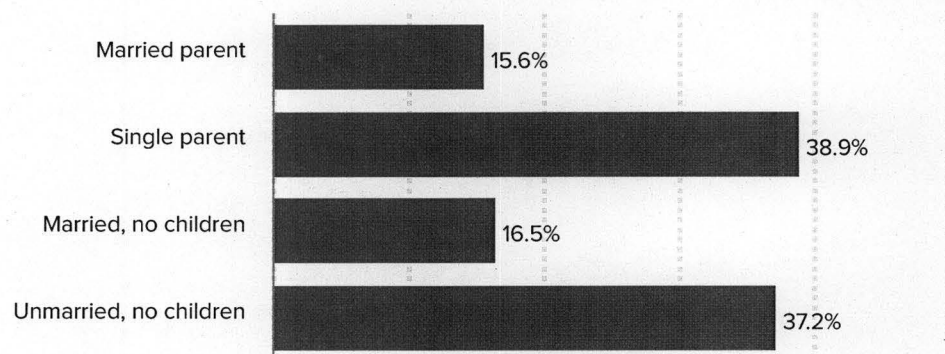
Figure M

Among those workers who would benefit from a minimum wage increase to \$15 by 2024, many have families; single parents would disproportionately benefit

Share of affected workers who are in each family status group



Share of each family status group that would benefit



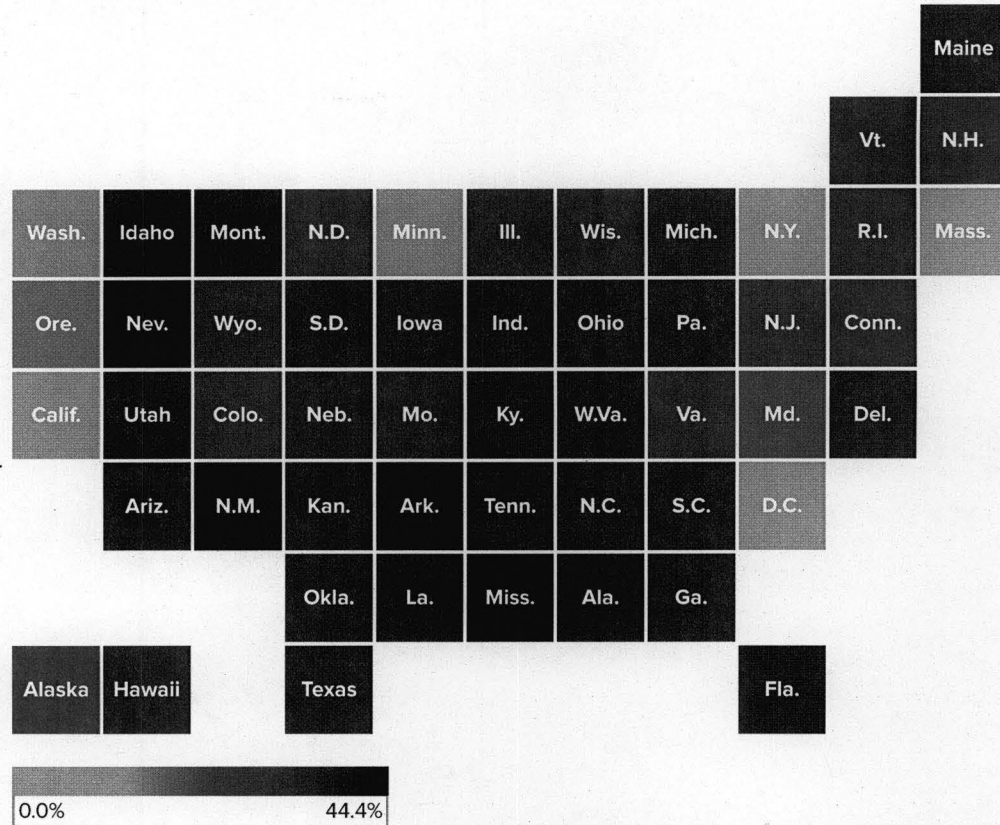
Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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Figure N

Workers across the country would get a pay hike from the Raise the Wage Act

Share of workforce in each state that would be affected if the federal minimum wage is raised to \$15 by 2024



Note: The map is colored based on the share of the state workforce that would be affected.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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Appendix Table
1

Summary of minimum wage increases under the Raise the Wage Act of 2019, and number of workers affected by the increases, 2019–2024

Date	New minimum wage	Increase	New tipped minimum wage	Tipped minimum increase	Total estimated U.S. workforce (thousands)	Directly affected (thousands)	Indirectly affected (thousands)	Total affected (thousands)	Affected workers' share of U.S. workforce
<i>July 2019</i>	\$8.55	\$1.30	\$3.60	\$1.47	145,172	2,890	4,668	7,558	5.2%
<i>July 2020</i>	\$9.85	\$1.30	\$5.10	\$1.50	145,957	7,345	8,255	15,600	10.7%
<i>July 2021</i>	\$11.15	\$1.30	\$6.60	\$1.50	146,766	14,043	7,466	21,510	14.7%
<i>July 2022</i>	\$12.45	\$1.30	\$8.10	\$1.50	147,599	18,419	8,639	27,059	18.3%
<i>July 2023</i>	\$13.75	\$1.30	\$9.60	\$1.50	148,457	22,082	11,770	33,853	22.8%
<i>July 2024</i>	\$15.00	\$1.25	\$11.10	\$1.50	149,340	28,078	11,595	39,673	26.6%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate exceeds their existing hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage. Wage increase totals are cumulative of all preceding steps.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

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Wage impacts of increasing the minimum wage under the Raise the Wage Act of 2019, 2019–2024 (2018\$)

Date	New minimum wage (nominal\$)	New minimum wage (2018\$)	New tipped minimum wage (nominal\$)	New tipped minimum wage (2018\$)	Directly affected workers				All (directly & indirectly) affected workers			
					Total wage increase (thousands)	Change in avg. hourly wage	Change in avg. annual earnings (year-round workers)	Real percent change in avg. annual earnings	Total wage increase (thousands)	Change in avg. hourly wage	Change in avg. annual earnings (year-round workers)	Real percent change in avg. annual earnings
July 2019	\$8.55	\$8.35	\$3.60	\$3.52	\$3,183,112	\$0.78	\$1,100	9.9%	\$5,451,848	\$0.48	\$720	4.9%
July 2020	\$9.85	\$9.39	\$5.10	\$4.86	\$11,065,150	\$1.04	\$1,510	11.4%	\$15,090,992	\$0.64	\$970	5.9%
July 2021	\$11.15	\$10.37	\$6.60	\$6.14	\$26,273,782	\$1.24	\$1,870	12.1%	\$30,921,598	\$0.93	\$1,440	8.1%
July 2022	\$12.45	\$11.30	\$8.10	\$7.35	\$49,581,231	\$1.73	\$2,690	16.2%	\$55,004,321	\$1.29	\$2,030	10.6%
July 2023	\$13.75	\$12.18	\$9.60	\$8.50	\$78,818,401	\$2.24	\$3,570	20.2%	\$86,276,638	\$1.59	\$2,550	12.5%
July 2024	\$15.00	\$12.98	\$11.10	\$9.60	\$111,964,973	\$2.46	\$3,990	20.9%	\$120,789,478	\$1.87	\$3,040	14.0%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage. Wage increase totals are cumulative of all preceding steps.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of workers affected by increasing the federal minimum wage to \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
All workers	149,340	28,078	18.8%	11,595	7.8%	39,673	26.6%	100.0%
Gender								
Women	72,465	16,478	22.7%	6,479	8.9%	22,957	31.7%	57.9%
Men	76,875	11,600	15.1%	5,116	6.7%	16,716	21.7%	42.1%
Age								
Age 19 or younger	5,213	3,366	64.6%	337	6.5%	3,702	71.0%	9.3%
Age 20 or older	144,126	24,712	17.1%	11,258	7.8%	35,970	25.0%	90.7%
Ages 16–24								
Ages 16–24	20,313	10,834	53.3%	2,052	10.1%	12,886	63.4%	32.5%
Ages 25–39								
Ages 25–39	50,239	8,890	17.7%	4,446	8.9%	13,336	26.5%	33.6%
Ages 40–54								
Ages 40–54	47,723	4,632	9.7%	3,011	6.3%	7,643	16.0%	19.3%
Age 55 or older								
Age 55 or older	31,065	3,722	12.0%	2,086	6.7%	5,807	18.7%	14.6%
Race/ethnicity								
White	89,375	14,187	15.9%	6,514	7.3%	20,701	23.2%	52.2%
Black	17,564	5,079	28.9%	1,621	9.2%	6,700	38.1%	16.9%
Hispanic	28,702	6,984	24.3%	2,598	9.1%	9,583	33.4%	24.2%
Asian	9,641	909	9.4%	526	5.5%	1,435	14.9%	3.6%
Other race/ethnicity	4,057	919	22.6%	335	8.3%	1,254	30.9%	3.2%
Women of color								
Women of color	29,027	7,792	26.8%	2,554	8.8%	10,346	35.6%	26.1%
Men of color								
Men of color	30,937	6,099	19.7%	2,526	8.2%	8,626	27.9%	21.7%
Family status								
Married parent	37,727	3,656	9.7%	2,231	5.9%	5,887	15.6%	14.8%

Appendix Table
3 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Single parent	13,783	3,877	28.1%	1,478	10.7%	5,355	38.9%	13.5%
Married, no children	38,401	3,929	10.2%	2,413	6.3%	6,342	16.5%	16.0%
Unmarried, no children	59,430	16,616	28.0%	5,473	9.2%	22,089	37.2%	55.7%
<i>Education</i>								
Less than high school	15,045	6,159	40.9%	1,529	10.2%	7,688	51.1%	19.4%
High school	37,103	10,299	27.8%	4,233	11.4%	14,532	39.2%	36.6%
Some college, no degree	34,755	8,536	24.6%	3,429	9.9%	11,965	34.4%	30.2%
Associate degree	13,495	1,801	13.3%	1,105	8.2%	2,906	21.5%	7.3%
Bachelor's degree or higher	48,942	1,282	2.6%	1,299	2.7%	2,582	5.3%	6.5%
<i>Family income</i>								
Less than \$25,000	20,098	10,276	51.1%	2,516	12.5%	12,792	63.6%	32.2%
\$25,000-\$49,999	30,386	6,930	22.8%	3,882	12.8%	10,812	35.6%	27.3%
\$50,000-\$74,999	27,730	4,344	15.7%	2,189	7.9%	6,533	23.6%	16.5%
\$75,000-\$99,999	21,733	2,597	12.0%	1,288	5.9%	3,885	17.9%	9.8%
\$100,000-\$149,999	26,711	2,506	9.4%	1,120	4.2%	3,626	13.6%	9.1%
\$150,000 or more	22,682	1,425	6.3%	600	2.6%	2,025	8.9%	5.1%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	10,292	5,914	57.5%	1,013	9.8%	6,927	67.3%	17.5%
101-200% of poverty line	21,646	8,410	38.9%	3,190	14.7%	11,600	53.6%	29.2%
201-400% of poverty line	46,889	8,341	17.8%	4,798	10.2%	13,138	28.0%	33.1%

Appendix Table
3 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
401% or above	69,575	4,858	7.0%	2,535	3.6%	7,393	10.6%	18.6%
Poverty status not available	938	555	59.2%	60	6.4%	615	65.6%	1.5%
<i>Work hours</i>								
Part time (<20 hours)	8,637	3,398	39.3%	784	9.1%	4,182	48.4%	10.5%
Mid time (20– 34 hours)	22,177	9,349	42.2%	2,352	10.6%	11,701	52.8%	29.5%
Full time (35+ hours)	118,525	15,331	12.9%	8,458	7.1%	23,789	20.1%	60.0%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	2,434	523	21.5%	184	7.6%	707	29.1%	1.8%
Construction	8,228	993	12.1%	618	7.5%	1,611	19.6%	4.1%
Manufacturing	16,443	2,017	12.3%	1,138	6.9%	3,155	19.2%	8.0%
Wholesale trade	4,072	543	13.3%	280	6.9%	823	20.2%	2.1%
Retail trade	17,572	6,071	34.6%	1,739	9.9%	7,811	44.4%	19.7%
Transportation, warehousing, utilities	7,773	799	10.3%	494	6.4%	1,293	16.6%	3.3%
Information	3,188	263	8.2%	130	4.1%	392	12.3%	1.0%
Finance, insurance, real estate	9,531	656	6.9%	442	4.6%	1,098	11.5%	2.8%
Professional, scientific, management, technical services	9,256	381	4.1%	240	2.6%	620	6.7%	1.6%
Administrative, support, and waste management	5,968	1,646	27.6%	584	9.8%	2,231	37.4%	5.6%
Education	14,673	1,725	11.8%	759	5.2%	2,483	16.9%	6.3%
Health care	21,437	3,952	18.4%	1,613	7.5%	5,565	26.0%	14.0%

Appendix Table
3 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Arts, entertainment, recreational services	3,028	960	31.7%	357	11.8%	1,317	43.5%	3.3%
Accommodation	1,803	700	38.8%	246	13.7%	947	52.5%	2.4%
Restaurants and food service	10,290	4,995	48.5%	1,691	16.4%	6,686	65.0%	16.9%
Other services	6,039	1,508	25.0%	818	13.5%	2,326	38.5%	5.9%
Public administration	7,606	346	4.5%	262	3.4%	607	8.0%	1.5%
Tipped occupations								
Tipped workers	4,393	1,778	40.5%	1,828	41.6%	3,606	82.1%	9.1%
Nontipped workers	144,947	26,300	18.1%	9,767	6.7%	36,067	24.9%	90.9%
Sector								
For-profit	113,570	24,250	21.4%	9,760	8.6%	34,010	29.9%	85.7%
Government	22,641	2,027	9.0%	1,037	4.6%	3,064	13.5%	7.7%
Nonprofit	13,128	1,801	13.7%	798	6.1%	2,599	19.8%	6.6%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b.

Economic Policy Institute

Number and share of U.S. children affected by increasing the federal minimum wage to \$15 by 2024

Group	In directly affected households		In indirectly affected households		Total number affected (thousands)	Total share of U.S. children* affected
	Number (thousands)	Share of U.S. children*	Number (thousands)	Share of U.S. children*		
<i>Children with at least one parent* who would benefit</i>	9,433	12.9%	4,956	6.8%	14,389	19.6%
<i>Children with at least one adult* in the household who would benefit</i>	12,432	16.9%	5,645	7.7%	18,077	24.6%

* Shares are out of an estimated total of 73,356,000 children living in the United States.

† “Parent” refers to the biological or adoptive parent of a child. “Adult” refers to any adult living in the child’s household—e.g., parent, grandparent, caretaker, or adult sibling.

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI’s Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Sources: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Estimate for total number of U.S. children comes from U.S. Census Bureau 2017.

Economic Policy Institute

Summary of impact of increasing the minimum wage to \$15 by 2024 (in 2024), by state

State	Total estimated state workforce (thousands)	Directly affected (thousands)	Share of state workforce directly affected	Indirectly affected (thousands)	Share of state workforce indirectly affected	Total affected (thousands)	Total share of state workforce affected	State's share of total affected nationally	Change in total annual wages of state's affected workers (2018\$, thousands)	Change in avg. annual earnings of state's affected year-round workers (2018\$)	Real percent change in avg. annual earnings
National total	149,340	28,078	18.8%	11,595	7.8%	39,673	26.6%	100.0%	\$120,789,478	\$3,040	14.0%
Alabama	2,010	581	28.9%	172	8.6%	754	37.5%	1.9%	\$2,820,747	\$4,330	18.0%
Alaska	350	64	18.3%	18	5.1%	82	23.4%	0.2%	\$226,885	\$3,200	11.9%
Arizona	2,986	694	23.2%	346	11.6%	1,040	34.8%	2.6%	\$928,148	\$1,030	3.7%
Arkansas	1,243	369	29.7%	118	9.5%	487	39.2%	1.2%	\$1,099,408	\$2,610	9.9%
California	18,753	7	<0.1%	4	<0.1%	11	0.1%	<0.1%	\$20,219	\$2,050	7.2%
Colorado	2,667	447	16.8%	313	11.7%	760	28.5%	1.9%	\$602,641	\$920	3.4%
Connecticut	1,768	332	18.8%	132	7.5%	465	26.3%	1.2%	\$1,068,581	\$2,660	11.8%
Delaware	433	111	25.6%	34	7.8%	145	33.5%	0.4%	\$442,554	\$3,530	14.8%
District of Columbia	361	7	1.8%	9	2.4%	15	4.2%	<0.1%	\$37,733	\$2,860	9.4%
Florida	8,874	2,501	28.2%	774	8.7%	3,275	36.9%	8.3%	\$10,487,542	\$3,700	14.9%
Georgia	4,533	1,205	26.6%	369	8.1%	1,575	34.7%	4.0%	\$5,840,009	\$4,290	17.6%
Hawaii	714	175	24.5%	62	8.7%	237	33.2%	0.6%	\$554,940	\$2,710	10.6%
Idaho	710	201	28.3%	69	9.8%	271	38.1%	0.7%	\$977,421	\$4,170	17.5%
Illinois	6,121	1,031	16.8%	981	16.0%	2,012	32.9%	5.1%	\$4,490,026	\$2,580	10.2%
Indiana	3,022	818	27.1%	294	9.7%	1,113	36.8%	2.8%	\$3,597,951	\$3,740	15.9%
Iowa	1,525	406	26.6%	132	8.7%	538	35.3%	1.4%	\$1,628,645	\$3,500	15.2%
Kansas	1,377	341	24.7%	140	10.1%	480	34.9%	1.2%	\$1,484,708	\$3,570	14.7%
Kentucky	1,860	533	28.7%	159	8.5%	692	37.2%	1.7%	\$2,685,891	\$4,490	18.9%
Louisiana	1,985	560	28.2%	185	9.3%	745	37.5%	1.9%	\$2,996,969	\$4,650	18.9%
Maine	617	123	20.0%	80	12.9%	203	32.9%	0.5%	\$208,705	\$1,190	4.6%
Maryland	3,032	479	15.8%	191	6.3%	670	22.1%	1.7%	\$1,839,055	\$3,170	12.8%
Massachusetts	3,456	33	1.0%	87	2.5%	121	3.5%	0.3%	\$227,502	\$2,180	8.5%

Appendix Table
5 (cont.)

State	Total estimated state workforce (thousands)	Directly affected (thousands)	Share of state workforce directly affected	Indirectly affected (thousands)	Share of state workforce indirectly affected	Total affected (thousands)	Total share of state workforce affected	State's share of total affected nationally	Change in total annual wages of state's affected workers (2018\$, thousands)	Change in avg. annual earnings of state's affected year-round workers (2018\$)	Real percent change in avg. annual earnings
<i>Michigan</i>	4,367	1,050	24.1%	419	9.6%	1,469	33.6%	3.7%	\$3,613,068	\$2,840	11.9%
<i>Minnesota</i>	2,773	323	11.7%	101	3.7%	425	15.3%	1.1%	\$777,756	\$2,120	9.5%
<i>Mississippi</i>	1,199	396	33.0%	103	8.6%	499	41.6%	1.3%	\$2,097,470	\$4,860	20.1%
<i>Missouri</i>	2,760	677	24.5%	232	8.4%	909	32.9%	2.3%	\$1,680,153	\$2,140	8.6%
<i>Montana</i>	457	128	28.0%	40	8.7%	168	36.7%	0.4%	\$423,578	\$2,920	12.5%
<i>Nebraska</i>	949	227	23.9%	89	9.4%	316	33.3%	0.8%	\$756,360	\$2,760	11.5%
<i>Nevada</i>	1,379	396	28.7%	159	11.6%	555	40.3%	1.4%	\$1,712,021	\$3,560	13.4%
<i>New Hampshire</i>	679	123	18.1%	50	7.4%	173	25.5%	0.4%	\$460,586	\$3,070	14.0%
<i>New Jersey</i>	4,397	796	18.1%	326	7.4%	1,123	25.5%	2.8%	\$3,128,308	\$3,220	13.7%
<i>New Mexico</i>	923	280	30.3%	83	9.0%	363	39.3%	0.9%	\$1,165,722	\$3,710	15.1%
<i>New York</i>	9,450	504	5.3%	680	7.2%	1,183	12.5%	3.0%	\$1,078,848	\$1,050	3.9%
<i>North Carolina</i>	4,474	1,227	27.4%	360	8.0%	1,587	35.5%	4.0%	\$6,017,683	\$4,380	18.4%
<i>North Dakota</i>	380	77	20.2%	32	8.5%	109	28.7%	0.3%	\$294,557	\$3,120	13.0%
<i>Ohio</i>	5,305	1,419	26.7%	430	8.1%	1,849	34.9%	4.7%	\$5,514,513	\$3,450	14.7%
<i>Oklahoma</i>	1,714	438	25.6%	164	9.6%	602	35.1%	1.5%	\$2,276,758	\$4,370	17.9%
<i>Oregon</i>	1,816	73	4.0%	246	13.6%	319	17.6%	0.8%	\$204,419	\$740	2.7%
<i>Pennsylvania</i>	5,910	1,475	25.0%	529	9.0%	2,004	33.9%	5.1%	\$6,698,663	\$3,860	16.9%
<i>Rhode Island</i>	516	92	17.9%	50	9.6%	142	27.5%	0.4%	\$290,337	\$2,360	10.0%
<i>South Carolina</i>	2,132	527	24.7%	209	9.8%	736	34.5%	1.9%	\$2,674,401	\$4,200	17.4%
<i>South Dakota</i>	414	102	24.7%	40	9.7%	142	34.4%	0.4%	\$339,289	\$2,760	11.0%
<i>Tennessee</i>	2,926	796	27.2%	274	9.4%	1,069	36.5%	2.7%	\$3,854,280	\$4,170	17.0%
<i>Texas</i>	13,157	3,624	27.5%	1,088	8.3%	4,712	35.8%	11.9%	\$18,781,857	\$4,610	18.8%
<i>Utah</i>	1,364	364	26.7%	124	9.1%	488	35.8%	1.2%	\$1,443,535	\$3,420	15.4%
<i>Vermont</i>	302	63	20.8%	25	8.1%	87	28.9%	0.2%	\$128,792	\$1,710	6.8%
<i>Virginia</i>	4,034	895	22.2%	293	7.3%	1,187	29.4%	3.0%	\$4,172,251	\$4,060	17.1%

Appendix Table
5 (cont.)

State	Total estimated state workforce (thousands)	Directly affected (thousands)	Share of state workforce directly affected	Indirectly affected (thousands)	Share of state workforce indirectly affected	Total affected (thousands)	Total share of state workforce affected	State's share of total affected nationally	Change in total annual wages of state's affected workers (2018\$, thousands)	Change in avg. annual earnings of state's affected year-round workers (2018\$)	Real percent change in avg. annual earnings
<i>Washington</i>	3,340	56	1.7%	456	13.7%	513	15.4%	1.3%	\$116,339	\$260	0.9%
<i>West Virginia</i>	718	195	27.2%	59	8.3%	255	35.5%	0.6%	\$800,502	\$3,630	14.9%
<i>Wisconsin</i>	2,832	670	23.7%	239	8.5%	909	32.1%	2.3%	\$2,887,627	\$3,670	16.6%
<i>Wyoming</i>	278	65	23.2%	24	8.6%	88	31.8%	0.2%	\$311,194	\$4,070	16.8%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers would see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They would receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of women workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
All women workers	72,465	16,478	22.7%	6,479	8.9%	22,957	31.7%	100.0%
Age								
Age 19 or younger	2,710	1,770	65.3%	166	6.1%	1,936	71.4%	8.4%
Age 20 or older	69,754	14,708	21.1%	6,313	9.1%	21,021	30.1%	91.6%
Ages 16–24	10,171	5,659	55.6%	997	9.8%	6,655	65.4%	29.0%
Ages 25–39	23,678	5,014	21.2%	2,282	9.6%	7,297	30.8%	31.8%
Ages 40–54	23,162	3,277	14.1%	1,884	8.1%	5,161	22.3%	22.5%
Age 55 or older	15,454	2,528	16.4%	1,316	8.5%	3,843	24.9%	16.7%
Race/ethnicity								
White	43,437	8,686	20.0%	3,925	9.0%	12,611	29.0%	54.9%
Black	9,658	3,043	31.5%	918	9.5%	3,961	41.0%	17.3%
Hispanic	12,599	3,664	29.1%	1,137	9.0%	4,801	38.1%	20.9%
Asian	4,710	552	11.7%	312	6.6%	864	18.3%	3.8%
Other race/ethnicity	2,060	533	25.9%	187	9.1%	720	35.0%	3.1%
Women of color	29,027	7,792	26.8%	2,554	8.8%	10,346	35.6%	26.1%
Family status								
Married parent	16,375	2,440	14.9%	1,269	7.8%	3,709	22.7%	16.2%
Single parent	9,565	3,053	31.9%	1,063	11.1%	4,116	43.0%	17.9%
Married, no children	18,223	2,593	14.2%	1,505	8.3%	4,098	22.5%	17.9%
Unmarried, no children	28,302	8,392	29.7%	2,641	9.3%	11,033	39.0%	48.1%
Education								
Less than high school	5,858	3,026	51.7%	545	9.3%	3,571	61.0%	15.6%
High school	16,211	5,962	36.8%	2,249	13.9%	8,211	50.7%	35.8%
Some college, no degree	17,487	5,352	30.6%	2,068	11.8%	7,420	42.4%	32.3%

Appendix Table
6 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Associate degree	7,542	1,242	16.5%	749	9.9%	1,991	26.4%	8.7%
Bachelor's degree or higher	25,366	896	3.5%	869	3.4%	1,764	7.0%	7.7%
<i>Family income</i>								
Less than \$25,000	10,654	5,959	55.9%	1,266	11.9%	7,225	67.8%	31.5%
\$25,000-\$49,999	15,084	4,129	27.4%	2,053	13.6%	6,181	41.0%	26.9%
\$50,000-\$74,999	13,315	2,669	20.0%	1,315	9.9%	3,984	29.9%	17.4%
\$75,000-\$99,999	10,366	1,533	14.8%	812	7.8%	2,345	22.6%	10.2%
\$100,000-\$149,999	12,573	1,418	11.3%	681	5.4%	2,099	16.7%	9.1%
\$150,000 or more	10,472	770	7.4%	352	3.4%	1,122	10.7%	4.9%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	5,827	3,602	61.8%	534	9.2%	4,136	71.0%	18.0%
101-200% of poverty line	10,896	4,874	44.7%	1,663	15.3%	6,537	60.0%	28.5%
201-400% of poverty line	22,579	4,916	21.8%	2,695	11.9%	7,611	33.7%	33.2%
401% or above	32,602	2,749	8.4%	1,555	4.8%	4,304	13.2%	18.7%
Poverty status not available	560	336	59.9%	33	5.9%	369	65.8%	1.6%
<i>Work hours</i>								
Part time (<20 hours)	5,570	2,160	38.8%	538	9.7%	2,698	48.4%	11.8%
Mid time (20- 34 hours)	14,090	5,837	41.4%	1,553	11.0%	7,390	52.4%	32.2%
Full time (35+ hours)	52,805	8,480	16.1%	4,389	8.3%	12,869	24.4%	56.1%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	496	120	24.2%	39	7.8%	159	31.9%	0.7%
Construction	811	103	12.7%	62	7.6%	165	20.3%	0.7%
Manufacturing	4,806	968	20.1%	466	9.7%	1,434	29.8%	6.2%
Wholesale trade	1,235	212	17.2%	101	8.2%	313	25.3%	1.4%
Retail trade	8,726	3,660	41.9%	969	11.1%	4,630	53.1%	20.2%

Appendix Table
6 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Transportation, warehousing, utilities	1,961	272	13.9%	161	8.2%	433	22.1%	1.9%
Information	1,327	152	11.5%	79	5.9%	231	17.4%	1.0%
Finance, insurance, real estate	5,338	445	8.3%	316	5.9%	760	14.2%	3.3%
Professional, scientific, management, technical services	4,176	270	6.5%	175	4.2%	445	10.7%	1.9%
Administrative, support, and waste management	2,377	757	31.9%	238	10.0%	995	41.9%	4.3%
Education	10,030	1,231	12.3%	564	5.6%	1,796	17.9%	7.8%
Health care	16,929	3,373	19.9%	1,375	8.1%	4,748	28.0%	20.7%
Arts, entertainment, recreational services	1,413	498	35.2%	184	13.0%	682	48.3%	3.0%
Accommodation	1,041	482	46.3%	131	12.6%	613	58.9%	2.7%
Restaurants and food service	5,356	2,802	52.3%	932	17.4%	3,733	69.7%	16.3%
Other services	3,054	931	30.5%	537	17.6%	1,469	48.1%	6.4%
Public administration	3,390	200	5.9%	151	4.5%	352	10.4%	1.5%
<i>Tipped occupations</i>								
Tipped workers	2,967	1,291	43.5%	1,178	39.7%	2,469	83.2%	10.8%
Nontipped workers	69,497	15,186	21.9%	5,301	7.6%	20,487	29.5%	89.2%
<i>Sector</i>								
For-profit	51,183	13,863	27.1%	5,217	10.2%	19,080	37.3%	83.1%
Government	12,716	1,360	10.7%	690	5.4%	2,051	16.1%	8.9%
Nonprofit	8,565	1,254	14.6%	571	6.7%	1,826	21.3%	8.0%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of black workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
All black workers	17,564	5,079	28.9%	1,621	9.2%	6,700	38.1%	100.0%
Gender								
Women	9,658	3,043	31.5%	918	9.5%	3,961	41.0%	59.1%
Men	7,907	2,036	25.7%	703	8.9%	2,739	34.6%	40.9%
Age								
Age 19 or younger	559	371	66.3%	29	5.2%	399	71.5%	6.0%
Age 20 or older	17,006	4,709	27.7%	1,592	9.4%	6,300	37.0%	94.0%
Ages 16–24	2,497	1,593	63.8%	199	7.9%	1,791	71.7%	26.7%
Ages 25–39	6,145	1,891	30.8%	660	10.7%	2,552	41.5%	38.1%
Ages 40–54	5,737	945	16.5%	490	8.5%	1,435	25.0%	21.4%
Age 55 or older	3,185	650	20.4%	272	8.5%	922	29.0%	13.8%
Family status								
Married parent	3,009	447	14.8%	230	7.6%	676	22.5%	10.1%
Single parent	3,031	1,117	36.8%	335	11.1%	1,452	47.9%	21.7%
Married, no children	3,012	491	16.3%	238	7.9%	729	24.2%	10.9%
Unmarried, no children	8,513	3,024	35.5%	818	9.6%	3,842	45.1%	57.3%
Educational attainment								
Less than high school	1,457	787	54.1%	137	9.4%	924	63.4%	13.8%
High school	5,115	2,048	40.0%	610	11.9%	2,657	52.0%	39.7%
Some college, no degree	5,155	1,726	33.5%	568	11.0%	2,293	44.5%	34.2%
Associate degree	1,625	326	20.1%	159	9.8%	485	29.8%	7.2%
Bachelor's degree or higher	4,212	192	4.6%	148	3.5%	340	8.1%	5.1%
Family income								
Less than \$25,000	3,527	2,237	63.4%	370	10.5%	2,608	73.9%	38.9%

Appendix Table
7 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$25,000-\$49,999	4,697	1,399	29.8%	669	14.2%	2,068	44.0%	30.9%
\$50,000-\$74,999	3,401	688	20.2%	293	8.6%	982	28.9%	14.7%
\$75,000-\$99,999	2,228	347	15.6%	141	6.3%	488	21.9%	7.3%
\$100,000-\$149,999	2,300	285	12.4%	102	4.4%	388	16.9%	5.8%
\$150,000 or more	1,411	122	8.7%	45	3.2%	167	11.8%	2.5%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	1,896	1,310	69.1%	144	7.6%	1,454	76.7%	21.7%
101-200% of poverty line	3,541	1,773	50.1%	524	14.8%	2,297	64.9%	34.3%
201-400% of poverty line	6,160	1,378	22.4%	710	11.5%	2,088	33.9%	31.2%
401% or above	5,850	545	9.3%	237	4.1%	782	13.4%	11.7%
Poverty status not available	117	73	62.4%	6	5.2%	79	67.5%	1.2%
<i>Work hours</i>								
Part time (<20 hours)	900	403	44.8%	69	7.7%	472	52.4%	7.0%
Mid time (20- 34 hours)	2,824	1,562	55.3%	256	9.1%	1,819	64.4%	27.1%
Full time (35+ hours)	13,841	3,114	22.5%	1,295	9.4%	4,409	31.9%	65.8%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	94	31	32.7%	8	8.0%	39	40.8%	0.6%
Construction	443	77	17.4%	38	8.6%	116	26.1%	1.7%
Manufacturing	1,589	398	25.0%	177	11.1%	575	36.2%	8.6%
Wholesale trade	312	87	27.8%	31	10.0%	118	37.8%	1.8%
Retail trade	2,081	1,003	48.2%	206	9.9%	1,209	58.1%	18.0%
Transportation, warehousing, utilities	1,324	235	17.7%	121	9.2%	356	26.9%	5.3%
Information	350	50	14.2%	22	6.3%	72	20.5%	1.1%
Finance, insurance, real estate	1,007	119	11.8%	68	6.7%	186	18.5%	2.8%

Appendix Table
7 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Professional, scientific, management, technical services	589	42	7.2%	24	4.0%	66	11.2%	1.0%
Administrative, support, and waste management	977	376	38.5%	111	11.3%	486	49.8%	7.3%
Education	1,588	310	19.5%	111	7.0%	421	26.5%	6.3%
Health care	3,613	1,049	29.0%	343	9.5%	1,392	38.5%	20.8%
Arts, entertainment, recreational services	291	121	41.5%	36	12.5%	157	53.9%	2.3%
Accommodation	266	142	53.3%	33	12.5%	175	65.8%	2.6%
Restaurants and food service	1,225	756	61.7%	153	12.5%	908	74.2%	13.6%
Other services	578	190	32.9%	78	13.5%	269	46.4%	4.0%
Public administration	1,238	94	7.6%	60	4.9%	155	12.5%	2.3%
Sector								
For-profit	12,677	4,257	33.6%	1,292	10.2%	5,549	43.8%	82.8%
Government	3,366	484	14.4%	210	6.2%	693	20.6%	10.3%
Nonprofit	1,521	339	22.3%	119	7.8%	458	30.1%	6.8%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Appendix Table
8

Demographic characteristics of Hispanic workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
<i>All Hispanic workers</i>	28,702	6,984	24.3%	2,598	9.1%	9,583	33.4%	100.0%
<i>Gender</i>								
Women	12,599	3,664	29.1%	1,137	9.0%	4,801	38.1%	50.1%
Men	16,103	3,321	20.6%	1,461	9.1%	4,782	29.7%	49.9%
<i>Age</i>								
Age 19 or younger	1,199	655	54.6%	73	6.1%	728	60.7%	7.6%
Age 20 or older	27,503	6,330	23.0%	2,525	9.2%	8,855	32.2%	92.4%
<i>Ages 16–24</i>								
Ages 16–24	4,893	2,286	46.7%	427	8.7%	2,713	55.4%	28.3%
<i>Ages 25–39</i>								
Ages 25–39	11,412	2,632	23.1%	1,139	10.0%	3,771	33.0%	39.3%
<i>Ages 40–54</i>								
Ages 40–54	8,881	1,419	16.0%	745	8.4%	2,165	24.4%	22.6%
<i>Age 55 or older</i>								
Age 55 or older	3,516	648	18.4%	287	8.2%	935	26.6%	9.8%
<i>Family status</i>								
Married parent	8,163	1,403	17.2%	719	8.8%	2,122	26.0%	22.1%
Single parent	3,861	1,158	30.0%	393	10.2%	1,551	40.2%	16.2%
<i>Married, no children</i>								
Married, no children	5,178	924	17.8%	441	8.5%	1,365	26.4%	14.2%
<i>Unmarried, no children</i>								
Unmarried, no children	11,501	3,500	30.4%	1,046	9.1%	4,545	39.5%	47.4%
<i>Educational attainment</i>								
Less than high school	7,643	2,745	35.9%	773	10.1%	3,518	46.0%	36.7%
High school	8,192	2,240	27.3%	895	10.9%	3,135	38.3%	32.7%
<i>Some college, no degree</i>								
Some college, no degree	6,378	1,515	23.7%	596	9.3%	2,111	33.1%	22.0%
<i>Associate degree</i>								
Associate degree	1,952	305	15.6%	170	8.7%	475	24.3%	5.0%
<i>Bachelor's degree or higher</i>								
Bachelor's degree or higher	4,538	180	4.0%	164	3.6%	344	7.6%	3.6%
<i>Family income</i>								
Less than \$25,000	5,378	2,540	47.2%	545	10.1%	3,085	57.4%	32.2%

Appendix Table
8 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$25,000–\$49,999	7,610	2,020	26.5%	953	12.5%	2,973	39.1%	31.0%
\$50,000–\$74,999	5,735	1,154	20.1%	513	8.9%	1,667	29.1%	17.4%
\$75,000–\$99,999	3,837	605	15.8%	284	7.4%	888	23.2%	9.3%
\$100,000–\$149,999	3,864	472	12.2%	219	5.7%	691	17.9%	7.2%
\$150,000 or more	2,278	193	8.5%	85	3.7%	278	12.2%	2.9%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	3,153	1,579	50.1%	275	8.7%	1,854	58.8%	19.3%
101–200% of poverty line	7,130	2,570	36.0%	864	12.1%	3,434	48.2%	35.8%
201–400% of poverty line	10,651	2,114	19.8%	1,102	10.4%	3,216	30.2%	33.6%
401% or above	7,660	672	8.8%	351	4.6%	1,024	13.4%	10.7%
Poverty status not available	108	49	45.8%	6	5.4%	55	51.1%	0.6%
<i>Work hours</i>								
Part time (<20 hours)	1,319	453	34.3%	92	7.0%	545	41.3%	5.7%
Mid time (20– 34 hours)	4,462	1,821	40.8%	370	8.3%	2,191	49.1%	22.9%
Full time (35+ hours)	22,922	4,711	20.6%	2,136	9.3%	6,847	29.9%	71.5%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	986	256	26.0%	86	8.7%	342	34.7%	3.6%
Construction	2,795	527	18.9%	307	11.0%	833	29.8%	8.7%
Manufacturing	3,097	626	20.2%	308	9.9%	935	30.2%	9.8%
Wholesale trade	857	174	20.3%	76	8.8%	250	29.2%	2.6%
Retail trade	3,386	1,144	33.8%	287	8.5%	1,432	42.3%	14.9%
Transportation, warehousing, utilities	1,482	197	13.3%	112	7.6%	309	20.9%	3.2%
Information	424	51	12.1%	23	5.4%	74	17.5%	0.8%
Finance, insurance, real estate	1,401	172	12.3%	95	6.8%	268	19.1%	2.8%

Appendix Table
8 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Professional, scientific, management, technical services	985	79	8.0%	45	4.6%	124	12.6%	1.3%
Administrative, support, and waste management	1,866	623	33.4%	183	9.8%	806	43.2%	8.4%
Education	1,938	318	16.4%	118	6.1%	436	22.5%	4.5%
Health care	3,178	709	22.3%	247	7.8%	956	30.1%	10.0%
Arts, entertainment, recreational services	517	170	32.8%	55	10.7%	225	43.5%	2.3%
Accommodation	559	227	40.6%	71	12.7%	298	53.3%	3.1%
Restaurants and food service	2,947	1,279	43.4%	394	13.4%	1,673	56.8%	17.5%
Other services	1,252	372	29.7%	150	12.0%	522	41.7%	5.5%
Public administration	1,031	59	5.7%	40	3.9%	100	9.7%	1.0%
Sector								
For-profit	23,991	6,342	26.4%	2,321	9.7%	8,663	36.1%	90.4%
Government	3,124	363	11.6%	161	5.1%	524	16.8%	5.5%
Nonprofit	1,586	279	17.6%	116	7.3%	396	24.9%	4.1%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of Asian workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
<i>All Asian workers</i>	13,698	1,827	13.3%	862	6.3%	2,689	19.6%	100.0%
<i>Gender</i>								
Women	6,770	1,085	16.0%	499	7.4%	1,584	23.4%	58.9%
Men	6,928	743	10.7%	362	5.2%	1,105	16.0%	41.1%
<i>Age</i>								
Age 19 or younger	446	246	55.2%	28	6.3%	274	61.5%	10.2%
Age 20 or older	13,252	1,581	11.9%	834	6.3%	2,415	18.2%	89.8%
<i>Age groups</i>								
Ages 16–24	1,771	756	42.7%	156	8.8%	912	51.5%	33.9%
Ages 25–39	5,333	565	10.6%	330	6.2%	895	16.8%	33.3%
Ages 40–54	4,371	301	6.9%	243	5.6%	544	12.5%	20.2%
Age 55 or older	2,222	205	9.2%	133	6.0%	338	15.2%	12.6%
<i>Family status</i>								
Married parent	4,159	282	6.8%	208	5.0%	489	11.8%	18.2%
Single parent	881	189	21.5%	91	10.3%	281	31.9%	10.4%
Married, no children	3,442	275	8.0%	190	5.5%	464	13.5%	17.3%
Unmarried, no children	5,217	1,081	20.7%	373	7.2%	1,455	27.9%	54.1%
<i>Educational attainment</i>								
Less than high school	1,180	406	34.4%	126	10.7%	533	45.2%	19.8%
High school	2,312	593	25.7%	273	11.8%	867	37.5%	32.2%
Some college, no degree	2,544	566	22.3%	236	9.3%	803	31.6%	29.8%
Associate degree	1,046	124	11.9%	78	7.4%	202	19.3%	7.5%
Bachelor's degree or higher	6,615	137	2.1%	148	2.2%	285	4.3%	10.6%
<i>Family income</i>								
Less than \$25,000	1,689	636	37.6%	187	11.1%	823	48.7%	30.6%

Appendix Table
9 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$25,000–\$49,999	2,298	423	18.4%	254	11.0%	677	29.5%	25.2%
\$50,000–\$74,999	2,201	280	12.7%	157	7.1%	437	19.9%	16.3%
\$75,000–\$99,999	1,831	173	9.5%	101	5.5%	274	15.0%	10.2%
\$100,000–\$149,999	2,593	189	7.3%	99	3.8%	288	11.1%	10.7%
\$150,000 or more	3,086	127	4.1%	63	2.1%	190	6.2%	7.1%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	935	395	42.2%	92	9.9%	487	52.1%	18.1%
101–200% of poverty line	1,783	506	28.4%	230	12.9%	736	41.3%	27.4%
201–400% of poverty line	3,789	540	14.2%	331	8.7%	871	23.0%	32.4%
401% or above	7,072	335	4.7%	200	2.8%	535	7.6%	19.9%
Poverty status not available	118	52	44.3%	8	6.5%	60	50.8%	2.2%
<i>Work hours</i>								
Part time (<20 hours)	844	263	31.2%	64	7.6%	327	38.8%	12.2%
Mid time (20– 34 hours)	1,955	600	30.7%	185	9.5%	785	40.2%	29.2%
Full time (35+ hours)	10,899	964	8.8%	612	5.6%	1,576	14.5%	58.6%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	98	16	16.6%	6	6.1%	22	22.7%	0.8%
Construction	348	30	8.7%	20	5.7%	50	14.4%	1.9%
Manufacturing	1,555	128	8.2%	81	5.2%	209	13.5%	7.8%
Wholesale trade	328	30	9.2%	15	4.7%	45	13.8%	1.7%
Retail trade	1,492	392	26.3%	117	7.8%	509	34.1%	18.9%
Transportation, warehousing, utilities	579	40	7.0%	26	4.5%	66	11.4%	2.5%
Information	352	17	4.9%	8	2.2%	25	7.1%	0.9%
Finance, insurance, real estate	930	33	3.6%	25	2.7%	59	6.3%	2.2%

Appendix Table
9 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Professional, scientific, management, technical services	1,419	25	1.7%	14	1.0%	38	2.7%	1.4%
Administrative, support, and waste management	370	71	19.1%	28	7.5%	98	26.6%	3.7%
Education	1,202	123	10.2%	49	4.1%	172	14.3%	6.4%
Health care	2,186	216	9.9%	101	4.6%	317	14.5%	11.8%
Arts, entertainment, recreational services	300	79	26.3%	42	14.1%	121	40.3%	4.5%
Accommodation	235	63	26.7%	37	15.6%	99	42.3%	3.7%
Restaurants and food service	1,057	400	37.8%	152	14.4%	551	52.2%	20.5%
Other services	617	140	22.8%	124	20.1%	265	42.9%	9.8%
Public administration	628	23	3.7%	18	2.8%	41	6.5%	1.5%
Sector								
For-profit	10,571	1,577	14.9%	737	7.0%	2,314	21.9%	86.0%
Government	1,955	146	7.5%	72	3.7%	218	11.2%	8.1%
Nonprofit	1,172	105	9.0%	52	4.4%	157	13.4%	5.8%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of white workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
<i>All white workers</i>	89,375	14,187	15.9%	6,514	7.3%	20,701	23.2%	100.0%
Gender								
Women	43,437	8,686	20.0%	3,925	9.0%	12,611	29.0%	60.9%
Men	45,938	5,501	12.0%	2,589	5.6%	8,090	17.6%	39.1%
Age								
Age 19 or younger	3,009	2,094	69.6%	207	6.9%	2,301	76.5%	11.1%
Age 20 or older	86,366	12,092	14.0%	6,308	7.3%	18,400	21.3%	88.9%
Ages 16–24	11,152	6,200	55.6%	1,270	11.4%	7,470	67.0%	36.1%
Ages 25–39	27,349	3,802	13.9%	2,317	8.5%	6,118	22.4%	29.6%
Ages 40–54	28,732	1,967	6.8%	1,533	5.3%	3,499	12.2%	16.9%
Age 55 or older	22,142	2,218	10.0%	1,395	6.3%	3,613	16.3%	17.5%
Family status								
Married parent	22,397	1,524	6.8%	1,074	4.8%	2,599	11.6%	12.6%
Single parent	6,010	1,413	23.5%	659	11.0%	2,072	34.5%	10.0%
Married, no children	26,770	2,239	8.4%	1,544	5.8%	3,783	14.1%	18.3%
Unmarried, no children	34,199	9,011	26.3%	3,237	9.5%	12,247	35.8%	59.2%
Educational attainment								
Less than high school	4,766	2,220	46.6%	493	10.4%	2,713	56.9%	13.1%
High school	21,484	5,419	25.2%	2,455	11.4%	7,873	36.6%	38.0%
Some college, no degree	20,677	4,729	22.9%	2,028	9.8%	6,757	32.7%	32.6%
Associate degree	8,871	1,046	11.8%	698	7.9%	1,744	19.7%	8.4%
Bachelor's degree or higher	33,576	773	2.3%	840	2.5%	1,613	4.8%	7.8%
Family income								
Less than \$25,000	9,503	4,863	51.2%	1,413	14.9%	6,277	66.0%	30.3%

Appendix Table
10 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$25,000–\$49,999	15,781	3,088	19.6%	2,005	12.7%	5,093	32.3%	24.6%
\$50,000–\$74,999	16,393	2,221	13.5%	1,226	7.5%	3,447	21.0%	16.6%
\$75,000–\$99,999	13,837	1,473	10.6%	762	5.5%	2,235	16.2%	10.8%
\$100,000–\$149,999	17,954	1,559	8.7%	700	3.9%	2,259	12.6%	10.9%
\$150,000 or more	15,907	983	6.2%	407	2.6%	1,390	8.7%	6.7%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	4,308	2,630	61.1%	502	11.6%	3,131	72.7%	15.1%
101–200% of poverty line	9,193	3,561	38.7%	1,571	17.1%	5,133	55.8%	24.8%
201–400% of poverty line	26,289	4,310	16.4%	2,654	10.1%	6,964	26.5%	33.6%
401% or above	48,992	3,305	6.7%	1,747	3.6%	5,053	10.3%	24.4%
Poverty status not available	595	380	64.0%	40	6.8%	421	70.7%	2.0%
<i>Work hours</i>								
Part time (<20 hours)	5,574	2,280	40.9%	559	10.0%	2,838	50.9%	13.7%
Mid time (20– 34 hours)	12,937	5,365	41.5%	1,541	11.9%	6,906	53.4%	33.4%
Full time (35+ hours)	70,864	6,542	9.2%	4,415	6.2%	10,957	15.5%	52.9%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	1,255	220	17.5%	84	6.7%	304	24.2%	1.5%
Construction	4,642	358	7.7%	254	5.5%	612	13.2%	3.0%
Manufacturing	10,203	865	8.5%	572	5.6%	1,437	14.1%	6.9%
Wholesale trade	2,574	251	9.8%	158	6.1%	409	15.9%	2.0%
Retail trade	10,613	3,532	33.3%	1,129	10.6%	4,661	43.9%	22.5%
Transportation, warehousing, utilities	4,389	327	7.4%	235	5.3%	562	12.8%	2.7%
Information	2,061	144	7.0%	77	3.7%	221	10.7%	1.1%
Finance, insurance, real estate	6,193	331	5.4%	254	4.1%	585	9.5%	2.8%

Appendix Table
10 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Professional, scientific, management, technical services	6,263	234	3.7%	157	2.5%	391	6.2%	1.9%
Administrative, support, and waste management	2,756	577	20.9%	263	9.5%	840	30.5%	4.1%
Education	9,944	974	9.8%	481	4.8%	1,455	14.6%	7.0%
Health care	12,460	1,978	15.9%	921	7.4%	2,899	23.3%	14.0%
Arts, entertainment, recreational services	1,920	591	30.8%	224	11.6%	814	42.4%	3.9%
Accommodation	743	269	36.2%	105	14.2%	374	50.3%	1.8%
Restaurants and food service	5,060	2,561	50.6%	992	19.6%	3,553	70.2%	17.2%
Other services	3,591	805	22.4%	465	12.9%	1,270	35.4%	6.1%
Public administration	4,708	169	3.6%	143	3.0%	312	6.6%	1.5%
Sector								
For-profit	66,331	12,074	18.2%	5,410	8.2%	17,484	26.4%	84.5%
Government	14,195	1,034	7.3%	594	4.2%	1,629	11.5%	7.9%
Nonprofit	8,849	1,078	12.2%	510	5.8%	1,589	18.0%	7.7%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of Native American workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
All Native American workers	873	227	26.0%	90	10.2%	316	36.2%	100.0%
Gender								
Women	449	137	30.4%	51	11.3%	187	41.7%	59.2%
Men	424	90	21.3%	39	9.2%	129	30.5%	40.8%
Age								
Age 19 or younger	33	22	68.2%	3	7.7%	25	75.9%	7.9%
Age 20 or older	841	205	24.3%	87	10.4%	292	34.7%	92.1%
Ages 16–24								
Ages 16–24	127	78	61.1%	14	11.3%	92	72.4%	29.1%
Ages 25–39								
Ages 25–39	295	81	27.7%	35	11.9%	116	39.5%	36.8%
Ages 40–54								
Ages 40–54	282	41	14.5%	24	8.5%	65	23.0%	20.5%
Age 55 or older								
Age 55 or older	170	27	15.9%	16	9.5%	43	25.4%	13.7%
Family status								
Married parent	182	26	14.4%	16	8.7%	42	23.2%	13.4%
Single parent	143	46	32.3%	17	11.8%	63	44.1%	19.9%
Married, no children								
Married, no children	182	28	15.2%	15	8.4%	43	23.6%	13.5%
Unmarried, no children								
Unmarried, no children	367	127	34.6%	42	11.3%	168	45.9%	53.2%
Educational attainment								
Less than high school	96	47	49.0%	11	11.3%	58	60.3%	18.2%
High school	277	91	32.9%	35	12.7%	126	45.6%	40.0%
Some college, no degree								
Some college, no degree	253	69	27.4%	29	11.3%	98	38.7%	30.9%
Associate degree								
Associate degree	92	14	15.2%	9	9.4%	23	24.7%	7.1%
Bachelor's degree or higher								
Bachelor's degree or higher	156	6	3.7%	6	3.9%	12	7.6%	3.7%
Family income								
Less than \$25,000	179	101	56.4%	24	13.6%	125	70.0%	39.5%

Appendix Table
11 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$25,000–\$49,999	226	59	26.2%	30	13.5%	90	39.7%	28.3%
\$50,000–\$74,999	172	31	17.8%	17	9.8%	47	27.6%	15.0%
\$75,000–\$99,999	118	17	14.6%	9	7.3%	26	21.9%	8.1%
\$100,000–\$149,999	117	14	11.8%	6	5.5%	20	17.3%	6.4%
\$150,000 or more	63	6	8.8%	3	4.8%	9	13.7%	2.7%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	104	67	64.4%	11	10.6%	78	75.0%	24.6%
101–200% of poverty line	185	78	42.0%	30	16.4%	108	58.3%	34.1%
201–400% of poverty line	309	58	18.7%	35	11.2%	92	29.9%	29.2%
401% or above	272	23	8.3%	13	4.9%	36	13.2%	11.4%
Poverty status not available	3	2	59.9%	<1	5.7%	2	65.6%	0.6%
<i>Work hours</i>								
Part time (<20 hours)	42	20	48.3%	4	9.5%	24	57.8%	7.7%
Mid time (20– 34 hours)	137	70	51.5%	16	11.4%	86	62.9%	27.2%
Full time (35+ hours)	694	136	19.6%	70	10.1%	206	29.7%	65.1%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	22	5	20.5%	2	8.4%	6	28.9%	2.0%
Construction	56	8	14.6%	5	8.4%	13	23.0%	4.0%
Manufacturing	71	11	16.2%	6	8.6%	18	24.9%	5.5%
Wholesale trade	14	2	14.3%	2	11.6%	4	25.8%	1.2%
Retail trade	96	46	47.4%	11	11.1%	56	58.5%	17.8%
Transportation, warehousing, utilities	44	5	11.8%	4	8.5%	9	20.3%	2.8%
Information	11	1	13.2%	1	8.2%	2	21.4%	0.7%
Finance, insurance, real estate	33	4	13.0%	3	10.4%	8	23.4%	2.5%

Appendix Table
11 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Professional, scientific, management, technical services	25	3	10.4%	1	4.3%	4	14.7%	1.2%
Administrative, support, and waste management	28	10	36.2%	3	10.9%	13	47.1%	4.2%
Education	81	13	16.3%	6	7.7%	19	24.0%	6.1%
Health care	138	38	27.7%	15	11.2%	54	38.9%	17.0%
Arts, entertainment, recreational services	53	19	35.6%	10	18.2%	28	53.8%	9.0%
Accommodation	20	10	50.0%	2	12.1%	12	62.1%	3.9%
Restaurants and food service	57	33	58.2%	8	14.0%	41	72.2%	13.0%
Other services	29	9	29.1%	4	13.9%	13	43.0%	4.0%
Public administration	94	9	9.8%	7	6.9%	16	16.7%	5.0%
Sector								
For-profit	554	171	30.9%	61	11.1%	233	42.0%	73.5%
Government	253	41	16.1%	22	8.8%	63	24.9%	19.9%
Nonprofit	66	15	22.3%	6	9.1%	21	31.4%	6.6%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

Economic Policy Institute

Demographic characteristics of women of color workers affected by increasing the federal minimum wage by \$15 by 2024

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
<i>All women of color workers</i>	29,027	7,792	26.8%	2,554	8.8%	10,346	35.6%	100.0%
Age								
Age 19 or younger	1,137	663	58.3%	64	5.6%	726	63.9%	7.0%
Age 20 or older	27,891	7,129	25.6%	2,490	8.9%	9,620	34.5%	93.0%
Ages 16–24	4,551	2,378	52.3%	372	8.2%	2,750	60.4%	26.6%
Ages 25–39	10,739	2,712	25.3%	1,010	9.4%	3,723	34.7%	36.0%
Ages 40–54	9,249	1,744	18.9%	794	8.6%	2,538	27.4%	24.5%
Age 55 or older	4,488	957	21.3%	378	8.4%	1,336	29.8%	12.9%
Family status								
Married parent	6,408	1,256	19.6%	527	8.2%	1,783	27.8%	17.2%
Single parent	5,557	1,922	34.6%	583	10.5%	2,505	45.1%	24.2%
Married, no children	5,336	984	18.4%	444	8.3%	1,427	26.7%	13.8%
Unmarried, no children	11,727	3,630	31.0%	1,000	8.5%	4,631	39.5%	44.8%
Educational attainment								
Less than high school	3,918	1,869	47.7%	336	8.6%	2,205	56.3%	21.3%
High school	6,873	2,709	39.4%	841	12.2%	3,551	51.7%	34.3%
Some college, no degree	7,362	2,353	32.0%	815	11.1%	3,167	43.0%	30.6%
Associate degree	2,640	512	19.4%	263	10.0%	776	29.4%	7.5%
Bachelor's degree or higher	8,234	349	4.2%	298	3.6%	647	7.9%	6.3%
Family income								
Less than \$25,000	5,463	3,026	55.4%	520	9.5%	3,546	64.9%	34.3%
\$25,000–\$49,999	7,063	2,158	30.6%	896	12.7%	3,054	43.2%	29.5%
\$50,000–\$74,999	5,386	1,218	22.6%	508	9.4%	1,725	32.0%	16.7%
\$75,000–\$99,999	3,734	629	16.9%	294	7.9%	924	24.7%	8.9%

Appendix Table
12 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
\$100,000–\$149,999	4,124	523	12.7%	231	5.6%	754	18.3%	7.3%
\$150,000 or more	3,257	238	7.3%	105	3.2%	343	10.5%	3.3%
<i>Family income-to-poverty ratio</i>								
At or below the poverty line	3,318	1,969	59.3%	253	7.6%	2,221	67.0%	21.5%
101–200% of poverty line	6,055	2,660	43.9%	783	12.9%	3,443	56.9%	33.3%
201–400% of poverty line	9,696	2,214	22.8%	1,069	11.0%	3,283	33.9%	31.7%
401% or above	9,753	845	8.7%	437	4.5%	1,282	13.1%	12.4%
Poverty status not available	206	105	51.1%	11	5.5%	117	56.6%	1.1%
<i>Work hours</i>								
Part time (<20 hours)	1,930	703	36.4%	150	7.8%	853	44.2%	8.2%
Mid time (20– 34 hours)	5,654	2,469	43.7%	513	9.1%	2,982	52.7%	28.8%
Full time (35+ hours)	21,443	4,620	21.5%	1,892	8.8%	6,511	30.4%	62.9%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	255	65	25.4%	20	8.0%	85	33.4%	0.8%
Construction	246	46	18.6%	20	8.1%	66	26.7%	0.6%
Manufacturing	2,097	572	27.3%	221	10.6%	793	37.8%	7.7%
Wholesale trade	474	110	23.1%	37	7.8%	147	30.9%	1.4%
Retail trade	3,494	1,486	42.5%	316	9.1%	1,802	51.6%	17.4%
Transportation, warehousing, utilities	913	161	17.6%	82	9.0%	243	26.6%	2.3%
Information	479	67	13.9%	30	6.2%	96	20.1%	0.9%
Finance, insurance, real estate	1,913	210	11.0%	125	6.5%	335	17.5%	3.2%
Professional, scientific, management, technical services	1,337	98	7.3%	56	4.2%	153	11.5%	1.5%
Administrative, support, and waste management	1,288	496	38.5%	123	9.5%	619	48.1%	6.0%

Appendix Table
12 (cont.)

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share directly affected	Indirectly affected (thousands)	Share indirectly affected	Total affected (thousands)	Share of group who are affected	Group's share of total affected
Education	3,165	525	16.6%	195	6.2%	720	22.7%	7.0%
Health care	6,999	1,666	23.8%	575	8.2%	2,241	32.0%	21.7%
Arts, entertainment, recreational services	510	184	36.1%	66	12.9%	250	49.0%	2.4%
Accommodation	625	300	48.1%	73	11.7%	373	59.8%	3.6%
Restaurants and food service	2,525	1,283	50.8%	329	13.0%	1,611	63.8%	15.6%
Other services	1,241	418	33.7%	217	17.5%	635	51.2%	6.1%
Public administration	1,464	106	7.2%	70	4.8%	176	12.0%	1.7%
Sector								
For-profit	21,450	6,651	31.0%	2,079	9.7%	8,730	40.7%	84.4%
Government	4,887	660	13.5%	285	5.8%	945	19.3%	9.1%
Nonprofit	2,690	481	17.9%	190	7.1%	671	24.9%	6.5%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See EPI 2019b. Dollar values adjusted by projections for CPI-U in CBO 2018.

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Methodology

The Economic Policy Institute Minimum Wage Simulation Model uses data from the Current Population Survey (CPS) and the American Community Survey (ACS) to estimate the size and demographic/workforce characteristics of the populations affected by proposed changes in federal, state, and local minimum wages, as well as the likely impact of those changes on the wages of affected workers. The model accounts for inflation, labor force growth, and all existing state and local minimum wage laws and the likely minimum wages resulting from those laws throughout the simulation period. The statistics in this report were generated using the 2017 ACS five-year microdata and the 2017 CPS Outgoing Rotation Group microdata. A full description of the methodology can be found in EPI 2019b.

Endnotes

1. It would also phase out the youth minimum wage, which allows employers to pay workers under 20 a lower wage for the first 90 calendar days of work (U.S. Department of Labor Wage and Hour Division 2008a), and the subminimum wage for workers with disabilities, which allows employers, after receiving a certificate from the Wage and Hour Division of the Department of Labor, to pay workers with disabilities a lower wage (U.S. Department of Labor Wage and Hour Division 2008b).
2. We use the Research Series of the Consumer Price Index for All Urban Consumers (CPI-U) to deflate the value of the minimum wage because the CPI-U tracks changes in the prices of goods bought by typical U.S. consumers. It is the standard deflator used by researchers and government agencies when adjusting wages and incomes for changes in prices. For example, the Census Bureau uses the CPI-U when it measures trends in family and household incomes, and the Internal Revenue Service adjusts tax brackets annually using the CPI-U. The Census Bureau has made various methodological improvements to the CPI-U over the years. The Research Series applies current CPI-U methodology retrospectively to calculate the most accurate measure of historical inflation for typical U.S. consumers. We use the implicit price deflator for gross domestic product—or “GDP deflator”—when calculating changes in total economy net productivity. This is also standard practice, as it captures changes in the value of the overall output of the economy—i.e., the value of what workers are able to produce.
3. Inflation-adjusted values for future years are calculated using the projections for CPI-U in CBO 2018.
4. Overall productivity is measured as total economy productivity net depreciation. From 1968 to 2016, net productivity grew by 100 percent. Based on projections for productivity growth in CBO 2018, growth from 1968 to 2024 is expected to be 119 percent.
5. In a well-functioning economy, growth in wages would consistently outpace inflation. Unfortunately, that has not been the norm for the last half century in the U.S. Median wage growth has barely outpaced inflation over the past 50 years (as shown by the mere 16 percent growth of the median wage in Figure B). Labor market conditions at the start of 2019 are strong enough that it is possible there could be some median wage growth above inflation in the near term. Thus, assuming growth of 0.5 percent above inflation is a plausible, albeit conservative, estimate relative

to what wage growth should be in a healthy economy with rising productivity.

6. Fair Labor Standards Act of 1938.
7. Wething and Gould (2013) describe the various shortcomings of the federal poverty line and discuss alternative tools for measuring well-being. O'Brien and Pedulla (2010) also discuss the federal poverty line's inadequacy and provide a useful history of the measure.
8. See Cooper and Essrow 2015.
9. Dube, Giuliano, and Leonard (2015) observe minimum wage spillover or "ripple" effects for workers earning up to 15 percent above newly implemented minimum wages. Thus, in this analysis, the range of indirectly affected workers is modeled as those workers reporting hourly wages between 100 and 115 percent of the new minimum wage. See EPI 2019b for further detail.
10. Because this increase is larger than past increases that have been rigorously studied, we cannot predict how the higher wage floor might affect the aggregate hours worked by low-wage workers. As explained in greater detail in Cooper, Mishel, and Zipperer (2018), it may be that the total hours worked by the low-wage workforce shrinks. However, the distribution of that shrinkage is not clear. Opponents of minimum wage increases often portray this potential shrinkage as low-wage workers being forced out of the labor market entirely, never to work again. This is a misleading suggestion. The low-wage labor market has very high churn—workers move in and out of jobs frequently, some work multiple jobs, and many will typically spend some portion of the year not working. If the higher minimum wage does lead to a reduction in the total hours of work for low-wage workers, this reduction could manifest as some workers working fewer weeks per year, fewer hours per week, or in fewer jobs if they previously held more than one. In all three scenarios, the workers' total annual pay is still likely to be higher than it would have been otherwise because of the higher hourly rate they would receive from the minimum wage increase. The clearly harmful outcome would be instances in which workers are truly unable to find work at all, or in which their individual loss of hours outweighs the increased hourly rate of pay, leaving them worse off on net. We believe that such outcomes, if they occur, would affect only a very small fraction of workers in the low-wage labor market, and that the benefits of higher pay for millions more outweigh the risk of such negative outcomes. Moreover, policymakers have other tools (e.g., more generous unemployment benefits, work sharing programs, targeted hiring programs, and many other tools) that they can use to mitigate the impacts of any negative outcomes for workers.
11. The median age of affected workers is 30.
12. There are an estimated 72.5 million women in the wage-earning workforce, out of a total of 149.3 million workers. See Appendix Table 3.
13. Author's calculation using the EPI Minimum Wage Simulation Model. See EPI 2019b for details.
14. For a full list of all states that have enacted minimum wages above the federal minimum wage, and for any scheduled future increases, see EPI's minimum wage tracker (EPI 2019a).
15. Idaho and North Carolina have minimum wages equal to the federal minimum wage of \$7.25. Arkansas voters recently passed a ballot measure increasing the state minimum wage to \$11 by 2021, but without any further adjustment thereafter. Tennessee and Mississippi have no minimum wage laws. In these states and others without a minimum wage or with a minimum wage below the federal minimum wage, workers must be paid at least the federal minimum wage.
16. EPI's "Agenda to Raise America's Pay" describes 11 policies to boost American's wages by tilting bargaining power back toward low- and moderate-wage workers. See EPI 2016 for details.

17. “Wage theft” occurs when employers fail to pay employees the full wages to which they are entitled for the hours they work. See Cooper and Kroeger 2017 or Meixell and Eisenbrey 2014 for greater detail.
18. Tipped workers receive the full minimum wage before tips in Alaska, California, Oregon, Washington, Minnesota, Montana, and Nevada. In 2016, voters in Maine passed a ballot measure that will raise Maine’s tipped minimum wage over a 10-year period until it is equal to the state’s full minimum wage. In Hawaii, tipped workers generally receive the full minimum wage before tips, but employers may pay these workers \$0.75 below the regular minimum wage *if* workers’ combined base wage plus hourly tips equals at least \$7.00 more than the regular minimum wage.
19. See National Employment Law Project 2013.
20. See Marinescu 2018.
21. Cengiz et al. (2019) examine minimum wages as high as 59 percent of the median wage of all workers. This is a slightly different statistic from the median wage of full-time, year-round workers described in the first section of this report. The full-time, year-round workforce is a subset of all workers—some of whom work part time or only part of the year. Because part-time and part-year workers tend to have lower wages than full-time, full-year workers, including them in this calculation lowers the calculated median wage, therefore leading to the minimum wage being a higher percentage of the median wage than would result if calculated using the median wage of full-time, year-round workers. The full-time, year-round median is used in this report because it can be calculated for workers in 1968, allowing for comparisons to the high point of the federal minimum wage. Data allowing for calculations of the median wage of all workers are only available beginning in 1979.

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