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Raising the minimum wage to $15 by 2024 would lift wages for 41 million American workers

Report • By David Cooper • April 26, 2017

Summary: Gradually raising the minimum wage to $15 by 2024 would directly lift the wages of 22.5 million workers and directly or indirectly lift wages for 41.5 million workers, nearly 30 percent of all U.S. workers. 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.

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 to increase the federal minimum wage to ensure that even the lowest-paid workers benefited from broader improvements in wage and living standards.

Yet for decades, 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 increases have been too small to undo the decline in value that has occurred since the 1960s. In 2016, the federal minimum wage of $7.25 was worth 10 percent less than when it was last raised in 2009, after adjusting for inflation, and 25 percent below its peak value in 1968.

This decline in purchasing power means low-wage workers have to work longer hours just to achieve the standard of living that was considered the bare minimum almost half a century ago. Over that time, 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 earning the minimum wage does not earn enough through full-time work to be above the federal poverty line.

Restoring the value of the minimum wage to at least the same level it had 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.

In April 2017, Sens. Bernie Sanders (I-Vt.) and Patty Murray (D-Wash.), and Reps. Bobby Scott (D-Va.) and Keith Ellison (D-Minn.) announced that they would introduce the Raise the Wage Act of 2017, a bill that would raise the federal minimum wage in eight 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]

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. The report concludes with a discussion of the provisions of the Raise the Wage Act that would index the minimum wage to median wages, and gradually eliminate the subminimum wage for tipped workers.

This report finds that:

- A $15 minimum wage in 2024 would undo the erosion of the value of the real minimum wage that began primarily in the 1980s. In fact by 2019, 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 22.5 million workers. On average, these low-wage workers would receive a $3.10 increase in their hourly wage, in today's dollars. For a directly affected worker who works all year, that translates into a $5,100 increase in annual wage income, a raise of 31.3 percent. Another 19.0 million workers would benefit from a spillover effect as employers raise wages of workers making more than $15 in order to attract and retain their workforces.

- All told, raising the minimum to $15 in 2024 would directly or indirectly lift wages for 41.5 million workers, 29.2 percent of the wage-earning workforce.

- Over the phase-in period of the increases, the rising wage floor would generate $144 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 36 years old. A larger share of workers age 55 and older would receive a raise (16.1 percent) than teens (9.8 percent). More than half of all affected workers are prime-age workers between the ages of 25 and 54.

  - Although men are a larger share of the overall U.S. workforce, the majority of workers affected by raising the minimum wage (55.6 percent) are women.

- The minimum wage increase would disproportionately raise wages for people of color—for example, blacks make up 12.2 percent of the workforce but 16.7 percent of affected workers. This disproportionate impact means large shares of black and Hispanic workers would be affected: 40.1 percent of black workers and 33.5 percent of Hispanic workers would directly or indirectly get a raise.

- Of workers who would receive a raise, nearly two-thirds (63.0 percent) work full time, nearly half (46.6 percent) have some college experience, and more than a quarter (28.0 percent) have children.

- Four out of every 10 single parents who work (40.8 percent) would receive higher pay, including 44.6 percent of working single mothers. In all, 4.5 million single parents would benefit, accounting for 10.8 percent of those who would be affected by raising the minimum wage

- The workers with families—defined as a worker with a spouse or a child in the home—who would benefit are, on average, the primary breadwinners for their family, earning an average of 63.8 percent of their family's total income.

- A federal minimum wage increase to $15 in 2024 would raise wages for the parents of 19 million children across the United States, nearly one-quarter (24.0 percent) of all U.S. children.

- Indexing the minimum wage to median wages 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.

Snapshot of workers affected by raising the minimum wage to $15 by 2024

- 37.4 million adults
- 26.1 million full-time workers
- 23.1 million women
- 11.6 million parents
- 4.5 million single parents
- 19 million children, whose parents will get a raise

State tables

Supplemental tables showing characteristics of workers who would be affected

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-WWII 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 increase following the end of World War II), the minimum wage rose rather dramatically in real terms, nearly doubling overnight, followed by regular increases that 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 $9.68 in 2016 dollars. Increases in the 1970s essentially held the value of the minimum wage in place due to higher inflation driven by oil and food price shocks. 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 took place in the 1980s. As of 2016, the federal minimum wage was worth 25 percent less than in 1968.[2]

The dashed lines in the figure show that the Raise the Wage Act would reverse this unfortunate trend for low-wage workers. A series of eight increases over eight years—beginning with an increase to $9.25 in 2017 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. It would reach an estimated $9.65 in 2019 and $12.46 in 2024 (in 2016 dollars) The full increase to $15 by 2024 represents a 71.9 percent real increase in the minimum wage over its current value, and a 29 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 the recent past if they intend for low-wage workers to

Real and nominal value of the federal minimum wage, projected value under the Raise the Wage Act of 2017, and if it rose with total economy productivity, 1938–2016 and 2017–2024 (projected)
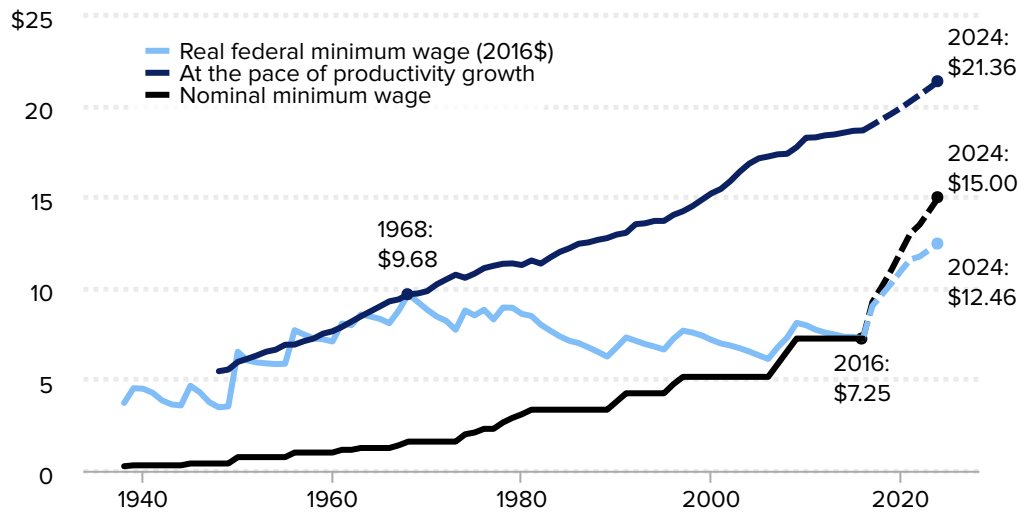
Note: The productivity series is total economy productivity net depreciation, indexed to the 1968 real value of the minimum wage. Minimum wage values are in 2016 dollars deflated by the CPI-U-RS. Projections for productivity growth and the real value of the minimum wage under the Raise the Wage Act of 2017 use CBO (2017).

Source: EPI analysis of the Raise the Wage Act of 2017, Fair Labor Standards Act and amendments, Current Population Survey Outgoing Rotation Group microdata, unpublished Total Economy Productivity data from Bureau of Labor Statistics Labor Productivity and Costs program, and CBO (2015)

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ever fully share in the growth of productivity and the economy that has occurred over the past five decades. As explained in 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, yet 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 29 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. 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.
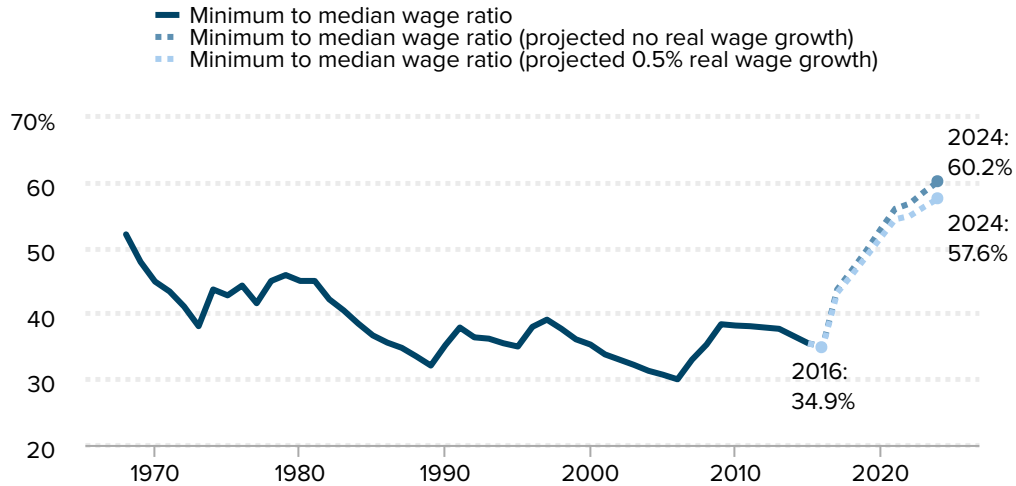
Figure B shows how the federal minimum wage has compared with the wages of typical U.S. workers. The solid line shows the value of the federal minimum wage as a percentage of the median wage of all full-time, full-year workers. The gradual decline of the line illustrates how inadequate increases in the federal minimum wage gradually increased the gap between the lowest-paid workers and those in the middle of the wage distribution. 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). In 1968, the federal minimum wage was equal to roughly half the wage of the typical U.S. worker: 52.1 percent of the median wage of all full-time workers. In 2016, the minimum wage is projected to be just over one-third of the wage of the typical worker: 34.9 percent of the median wage of all full-time, full-year workers.

The dotted lines in the figure show that the Raise the Wage Act would reverse this growth in inequality and place the minimum wage above its historical high point. Because of the uncertainty of median wage growth over the next eight years, the figure shows 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 where median wages grow 0.5 percent per year faster than projected inflation from 2016 to 2024. The Raise the Wage Act would lift the ratio of the minimum to the full-time, full-year median wage to 60.2 percent if there is no real wage growth, or 57.6 percent if there is modest real wage growth. Of course, if wages for middle-wage workers growth faster than 0.5 percent above inflation, this ratio will be smaller.

When set at an adequate level, the minimum wage also ensures 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." [5] 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.[6] 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

Federal minimum wage as a share of the median wage, 1968–2015 and 2016–2024 (projected under the Raise the Wage Act of 2017)

— Minimum to median wage ratio
∎∎ Minimum to median wage ratio (projected no real wage growth)
∎∎ Minimum to median wage ratio (projected 0.5% real wage growth)

2024: 60.2%

2024: 57.6%

2016: 34.9%

Note: Inflation is measured using the CPI-U-RS. Minimum wage is projected for 2016, hence the minimum wage to median wage ratio is a projected value.

Source: EPI analysis of the Fair Labor Standards Act and amendments and the Current Population Survey Annual Social and Economic Supplement microdata

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needs.

As shown in **Figure C**, a parent working full time while earning the minimum wage today earns too little to be 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 dotted 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 nearly one-third 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 as primarily teenagers from middle-class families who are working part time after school, or stay-at-home mothers whose "secondary earnings" are inconsequential to their family's financial health.[7] 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

Figure C

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

Annual wage income for a full-time minimum-wage worker, compared with various poverty thresholds (2016$), 1964–2016 and 2017–2024 (projected)
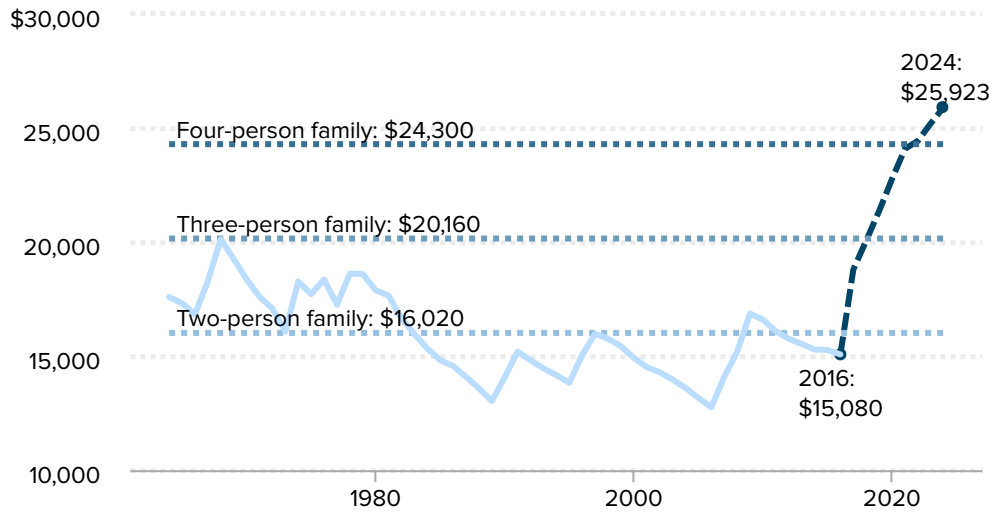
Notes: Inflation measured using the CPI-U-RS. Inflation projections calculated using CBO (2017).

Source: EPI analysis of Fair Labor Standards Act and amendments, the Raise the Wage Act of 2017, and CBO (2017)

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breadwinners for their families.

Figure D 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 $9.25 per hour, 18.0 million workers are likely to benefit. This includes 8.7 million workers who will directly benefit—meaning their current pay rate is between $7.25 and $9.25—as well as 9.2 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 $9.25.[8] 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 cumulative number of workers who would benefit grows. In the second year, as the minimum is lifted to $10.10 per hour, 10.1 million workers would directly receive a raise, and another 12.4 million would indirectly receive a raise. When the minimum increases to $11 in year three, 16.9 million would be directly affected, along with 8.3 million who would be indirectly affected. In the fourth year, 2020, the increase to $12 per hour would raise wages directly for 19.7 million workers, and indirectly for another 11.0 million workers. The increase to $13 per hour in year five would directly lift the pay of 22.9 million workers, and indirectly spur wage increases for another 14.3 million workers. In the final three years, the proposed minimum wage increases are relatively

Number of workers (in millions) affected by increasing the federal minimum wage to $15 by 2024
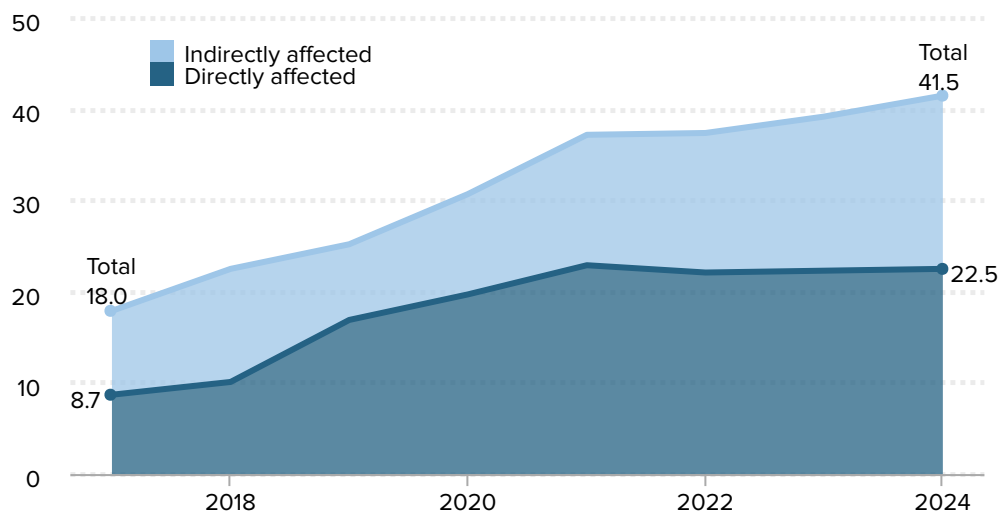
Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata

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small, compared with the step increases in earlier years. Because we assume that nominal wages for the overall workforce will be growing this whole time through regular market forces, the number of directly affected workers remains roughly the same in each of these final three increases: 22.1 million in year six, 22.3 million in year seven, and 22.5 million in the final year's increase to $15. The rising minimum wage in these final three years will indirectly raise wages for 15.3 million workers in year six, 16.9 percent in year seven, and 19.0 million in the final year. In total, the increase to $15 would lift wages for 41.5 million workers—nearly 30 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 eight-year phase-in period, affected workers would receive over $144 billion in additional annual wages, assuming no change in the number of work hours for these workers.[9] Once the increase is fully phased-in, the average affected worker who works year-round would earn roughly $3,500 more each year than she does today.

The following sections highlight the demographic characteristics—in terms of age, sex, race and ethnicity, family composition, hours of work, education, family income, and geography—of the workers who would be affected, counting 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 of workers affected by increasing the federal minimum wage to $15 by 2024

Share of affected workers who are teenagers versus age 20 or older

Teenagers: 9.8%

Age 20 or older: 90.2%
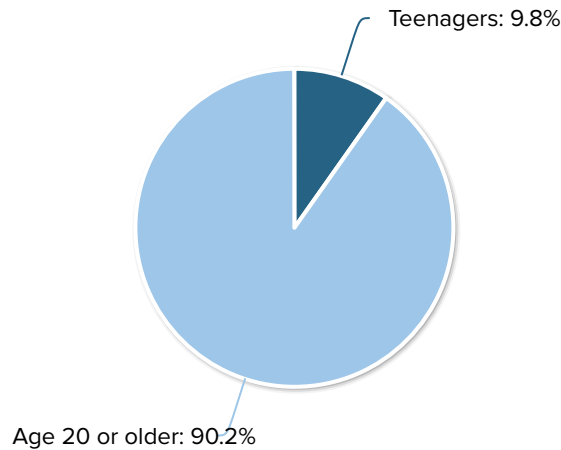
Detailed age breakdown of affected workers
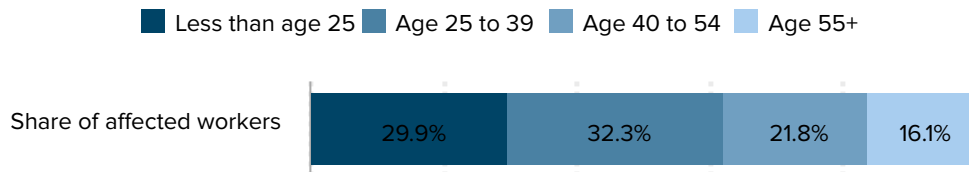
■ Less than age 25 ■ Age 25 to 39 ■ Age 40 to 54 ■ Age 55+

Share of affected workers	29.9%	32.3%	21.8%	16.1%

Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata

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Age

The low-wage workers likely to benefit from increasing 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—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 working-age adults, and only a small fraction are teenagers. As shown in the top graph in **Figure E**, teens account for a mere 9.8 percent of the workers who would benefit; over 90 percent of affected workers are 20 years old or older.

The second graph in Figure E 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 age 55 and older make up a larger share of workers who would receive a raise (16.1 percent) than do teens (9.8 percent), and workers age 40 and older make up a larger share of those who would receive an increase (37.9 percent) than do workers under age 25 (29.9 percent). Among affected workers, the average age is 36 years old.[10]

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 F**, women make up 55.6 percent of affected workers. In comparison, women make up only 48.0 percent of the total U.S. workforce.[11]

The magnitude of the impact on women is shown in the bar chart in Figure F. Among all wage-earning women in the United States, 33.8 percent—more than one-in-three working women—would receive a raise under a federal minimum-wage increase to $15 by 2024. In comparison, 24.9 percent of all wage-earning men would benefit—not as large a share as for women, but still nearly one fourth of all working men.

The bar chart in Figure F also shows, by gender, of the shares of workers who would benefit from a minimum-wage increase by family status and for women of color. Among working parents with children in their home, 32.0 percent of working mothers would receive a raise, as would 16.8 percent of working fathers. Among single parents, the effects are more dramatic: 44.6 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 (31.0 percent) of single fathers. Large shares of minority workers would also benefit: 37.1 percent of women of color would receive a raise, along with 29.1 percent of men of color.

Race/ethnicity

As shown in the upper section of **Figure G**, the majority—53.5 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 (22.7 percent) of the total affected population. Black workers are 16.7 percent of the total, and Asians and workers of other races/ethnicities make up 7.2 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 G shows the share of each race or ethnic group that would receive a raise if the federal minimum wage were increased to $15 by 2024. As the figure shows, 40.1 percent of all black workers would receive higher pay, as would a third (33.5 percent) of Hispanic workers. More than one-in-four (26.5 percent) white, non-Hispanic workers would get a raise—a slightly higher share than that of Asian workers and those of other races/ethnicities, of whom 22.4 percent would receive higher pay.

Share of each group affected by increasing the federal minimum wage to $15 by 2024

Men: 44.4%

Women: 55.6%
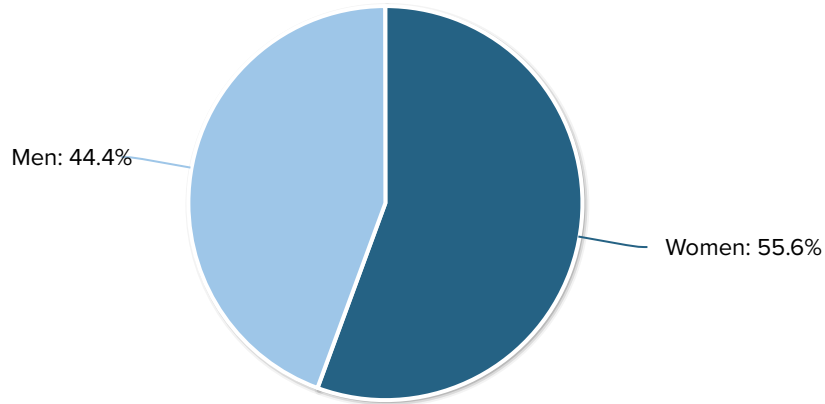
Shares of demographic groups that would benefit, by gender
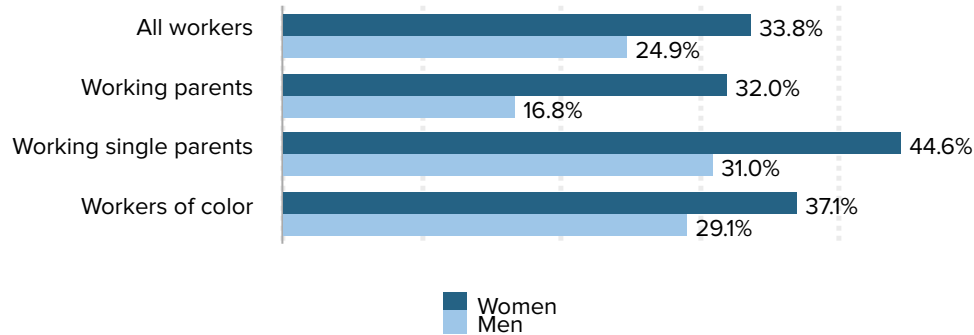
All workers	33.8%	24.9%
Working parents	32.0%	16.8%
Working single parents	44.6%	31.0%
Workers of color	37.1%	29.1%

■ Women
■ Men

Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata

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Education

As with misperceptions of the age of low-wage workers, many of the workers who would benefit from increasing the minimum wage have more education than is commonly acknowledged. As shown in **Figure H,** nearly half (46.5 percent) of the affected workers have at least some college experience, and more than a fifth (22.6 percent) have an associate degree or higher.

The lower bar graph in Figure H shows the share of workers at each educational level who would receive a raise from increasing the federal minimum wage to $15 by 2024. Not surprisingly, workers with lower levels of education are far more likely to be affected: More

Race/ethnicity of workers affected by increasing the federal minimum wage to $15 by 2024

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

■ White, non-Hispanic ■ Black ■ Hispanic of any race ■ Asian or other race/ ethnicity

| 53.5% | 16.7% | 22.7% | 7.2% |

0   10   20   30   40   50   60   70   80   90   100%

Share of each racial/ethnic worker group that would benefit

Black	40.1%
Hispanic of any race	33.5%
White, non-Hispanic	26.5%
Asian or other race/ethnicity	22.4%

Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata

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than half (56.2 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 (37.7 percent) of workers with some college experience, yet no degree, would receive a raise, as would more than one-quarter (27.6 percent) of workers with an associate degree. Even 10.4 percent of bachelor's degree holders would receive a pay hike.

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 I**, nearly two-thirds (63.0 percent) of affected workers work full time (at least 35 hours per week). Another 26.0 percent work between 20 and 34 hours per week, and only 11.0 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 I shows the share of each group of workers by work hour category who would

Educational attainment of workers affected by increasing the federal minimum wage to $15 by 2024

Share of affected workers who are in each educational attainment group

Legend: Less than high school | High school | Some college, no degree | Associate degree | Bachelor's degree or higher

| 17.7% | 35.8% | 23.9% | 9.9% | 12.7% |

0 10 20 30 40 50 60 70 80 90 100%
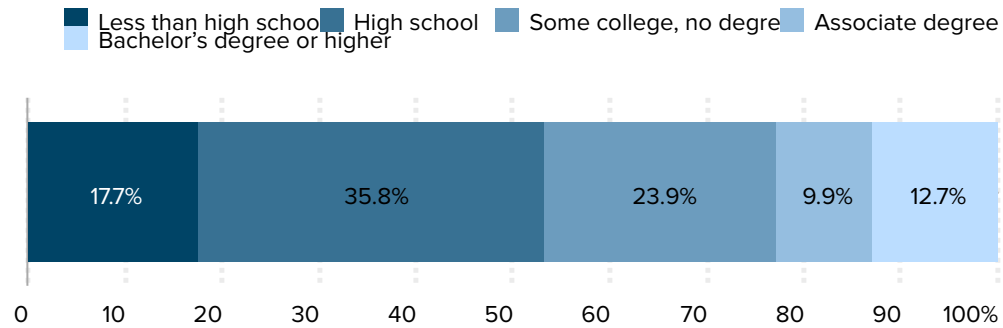
Share of each educational attainment worker group that would benefit

Less than high school	56.2%
High school	39.5%
Some college, no degree	37.7%
Associate degree	27.6%
Bachelor's degree or higher	10.4%

Source: EPI analysis of the Raise the Wage Act 0f 2017 using Current Population Survey Outgoing Rotation Group microdata

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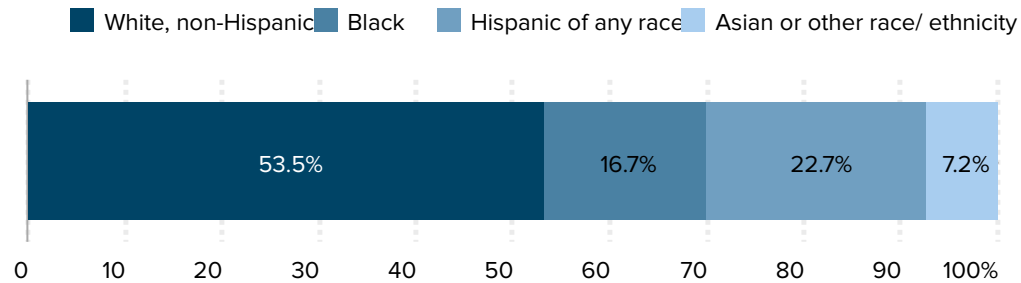receive a raise from a minimum wage increase to $15. Over 60 percent of workers who work fewer than 20 hours per week would receive a raise, as would 55.9 percent of those working between 20 and 34 hours per week. Among full-time workers, 22.9 percent—more than one in five—would receive a raise.

Many individuals who work less than full time are not opting for fewer hours by choice—many are limited by a lack of available work, or because circumstances prevent them from seeking full-time employment, 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) that might facilitate a full-time schedule (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 be the resources needed for them to seek more hours of work.

Figure I

Work hours of workers affected by increasing the federal minimum wage to $15 by 2024

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

■ Full time (35+ hours) ■ Mid time (20–34 hours) ■ Part time (less than 20 hours)

| 63.0% | 26.0% | 11.0% |

Share of each work hour group that would benefit
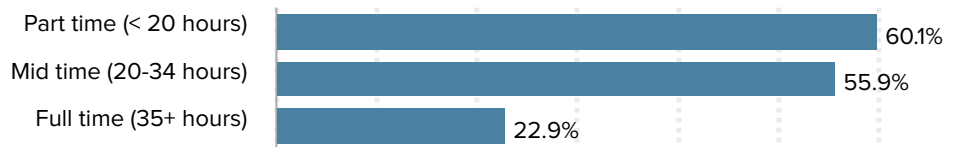
Part time (< 20 hours) — 60.1%
Mid time (20-34 hours) — 55.9%
Full time (35+ hours) — 22.9%

Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata

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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. As shown in **Figure J**, 74.3 percent of 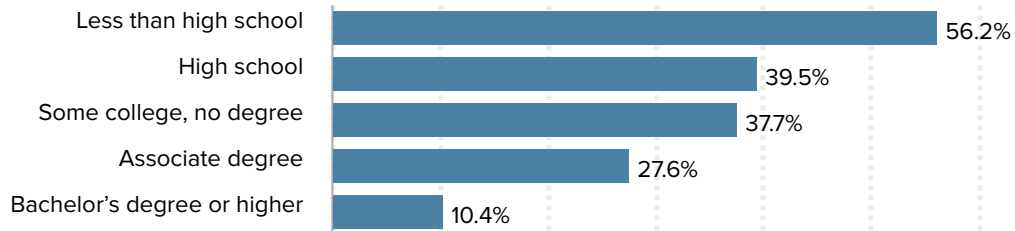the workers who would receive a raise if the minimum wage were increased to $15 by 2024 have total family incomes of less than $75,000 per year. More than half of affected workers have total family incomes below $50,000 per year.

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 age 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 (2013) finds that nearly all studies of this relationship show that raising the minimum wage significantly reduces poverty rates. In a recently released analysis of minimum wage increases from 1984 through 2013, Dube (2017) 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.

A variation of this criticism is that the minimum wage is "poorly targeted" because some of

Family income of workers affected by increasing the federal minimum wage to $15 by 2024
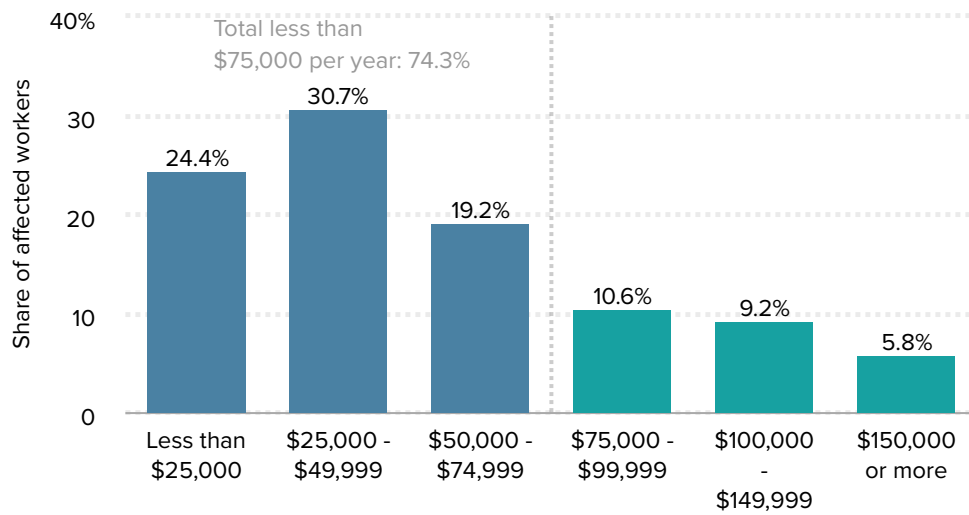
Note: Percentages do not sum to 100% due to rounding.

Source: EPI analysis of the Raise the Wage Act of 2017 using Current Population Survey Outgoing Rotation Group microdata
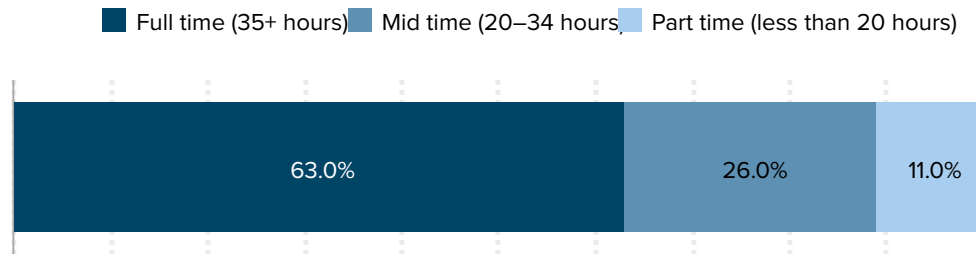
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the workers who would benefit from a minimum wage increase come from middle-class families. The fact that the minimum wage provides protection to workers at all levels of family income is a feature, not a bug, of the law. As a labor standard, the minimum 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.

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 K**, more than one-third (36.9 percent) of the affected workers are married, and more than one-quarter (28.0 percent) of affected workers have children. In total, over 11.6 million parents would receive higher pay under a minimum wage increase to $15 by 2024. Of these, 4.5 million are single parents, accounting for 10.8 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 7.7 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 K shows the shares of workers by family type who would be affected. Among married parents who work, 19.4 percent would receive a raise from

Family status of workers affected by increasing the federal minimum wage to $15 by 2024

Share of affected workers who are in each family status group

■ Unmarried, no children ■ Married, no children ■ Married parent ■ Single parent

| 52.3% | 19.7% | 17.2% | 10.8% |
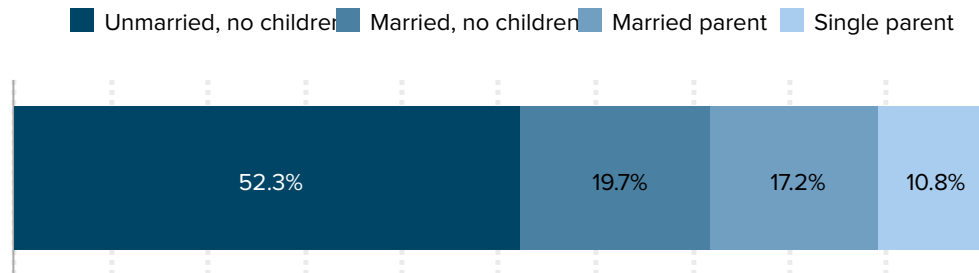
Share of each family type worker group that would benefit

Single parent	40.8%
Unmarried, no children	38.8%
Married, no children	21.3%
Married parent	19.4%
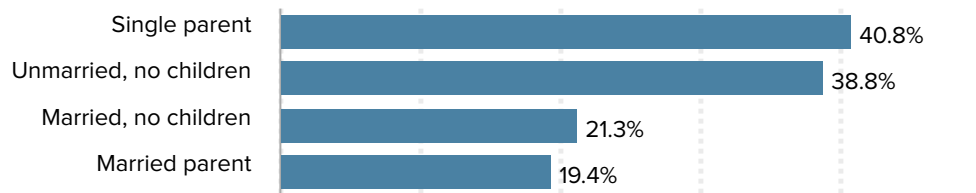
Source: EPI analysis of Raise the Wage Act using Current Population Survey Outgoing Rotation Group microdata

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increasing the minimum wage to $15 by 2024. Single parents who work would benefit at more than double that rate—four in ten single parents (40.8 percent) would receive higher pay if the minimum wage were raised.

The parents receiving higher pay provide for 19 million children across the United States, nearly one-quarter (24.0 percent) of all U.S. children (see **Appendix Table 3**).

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 have already enacted state minimum wage increases that will have lifted a sizeable share of their state workforce out of the affected range. [12] As the increases in those states' 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 L shows the share of each state's workforce that would be affected if the federal minimum wage were raised to $15 by 2024. Because California will already have a state

Figure L

How many working people in each state would get a boost from raising the minimum wage?

										Maine
									Vt.	N.H.
Wash.	Idaho	Mont.	N.D.	Minn.	Ill.	Wis.	Mich.	N.Y.	R.I.	Mass.
Ore.	Nev.	Wyo.	S.D.	Iowa	Ind.	Ohio	Pa.	N.J.	Conn.	
Calif.	Utah	Colo.	Neb.	Mo.	Ky.	W.Va.	Va.	Md.	Del.	
	Ariz.	N.M.	Kan.	Ark.	Tenn.	N.C.	S.C.	D.C.		
		Okla.	La.	Miss.	Ala.	Ga.				
Alaska	Hawaii		Texas						Fla.	

0.0%   44.4%
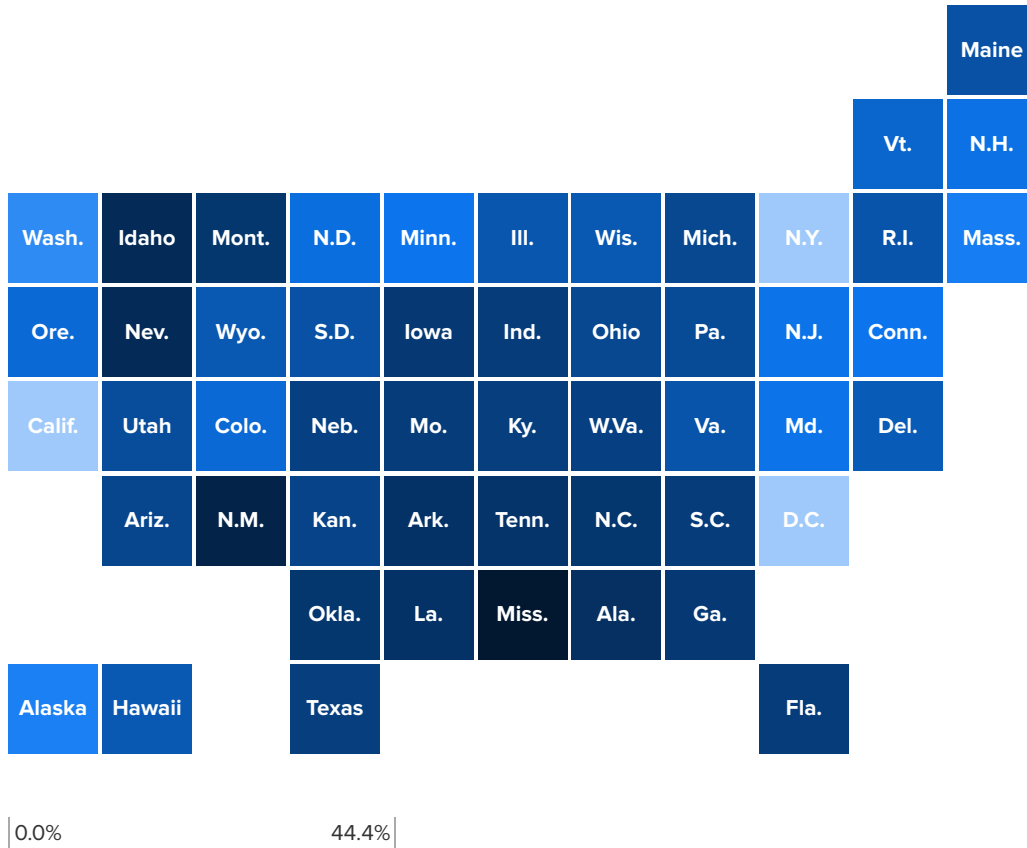
Click map to view data.

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

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; Dollar values adjusted by projections for CPI-U in CBO (2017)

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minimum wage of $15 in 2023, no California workers will be affected by the change in the federal minimum wage. Similarly, the District of Columbia is raising its minimum wage to $15 in 2020. However, a few workers in D.C. will be affected because they are tipped workers who will benefit from the Raise the Wage Act's increase in the minimum wage for tipped workers.[13] New York is raising the minimum wage in New York City, Long Island, and Westchester County to $15 before 2024, although the upstate region of the state would still be affected by the federal change. As a result, 12.2 percent of New York workers would receive a raise as a result of the rising federal minimum wage.

Among states that will not already have a $15 minimum wage, the smallest impact would be in Washington, where 24.2 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.) 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, Tennessee, and Idaho.[14] Workers in the Southeast, in particular, are most likely to see a pay increase if the federal minimum wage were raised. The largest impact would be in Mississippi, where more than four in ten workers (44.4 percent) are likely to be affected by the bill.

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 has children, or both, and the average worker with a family who would benefit from increasing the minimum wage to $15 by 2024 is, in fact, the primary breadwinner for her family. Workers who would get a raise that are either married or have children earn, on average, 63.8 percent of their family's total income. Of these workers with families, 29.6 percent are the sole providers of their family's income.[15]

Other aspects of the proposal

The Raise the Wage Act would also "index" the minimum wage to median wages, and would gradually phase out the subminimum wage for tipped workers. This section explains why both aspects would benefit workers.

Indexing to median wages

After reaching $15 in 2024, the Raise the Wage Act would index the minimum wage to median wages 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. There are currently 18 states that have enacted indexing of their state minimum wages to changes in prices, typically as measured by changes in the Consumer Price Index (CPI). 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 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 median wages 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. It will need to be complemented with other policies to ensure wage growth for this entire vast majority rises in step with overall productivity growth.[16]

In addition, 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, yet 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 in 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 common perceptions of waitstaff and bartenders making 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[17] (Allegretto and Cooper 2014). 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 15 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).

Conclusion

Since its inception in 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 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 too timid 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 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 non-tipped workers. These actions would significantly improve the well-being of millions of American workers and their families, and help to reduce long-standing race- and gender-based wage inequities.

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 in 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 a Master of Public Policy from Georgetown University.

Appendix A: Data tables

Appendix
Table 1

Summary of workers affected by increasing the minimum wage under the Raise the Wage Act of 2017, 2017—2024

Date	New minimum wage	Increase	New tipped minimum wage	Tipped minimum increase	Total estimated workforce	Directly affected	Indirectly affected	Total affected	Affected workers' share of workforce
July 2017	$9.25	$2.00	$4.15	$2.02	136,522,000	8,730,000	9,234,000	17,963,000	13.2%
July 2018	$10.10	$0.85	$5.30	$1.15	137,259,000	10,065,000	12,384,000	22,449,000	16.4%
July 2019	$11.00	$0.90	$6.45	$1.15	138,019,000	16,855,000	8,312,000	25,167,000	18.2%
July 2020	$12.00	$1.00	$7.60	$1.15	138,801,000	19,721,000	10,968,000	30,689,000	22.1%
July 2021	$13.00	$1.00	$8.75	$1.15	139,607,000	22,918,000	14,321,000	37,239,000	26.7%
July 2022	$13.50	$0.50	$9.90	$1.15	140,436,000	22,118,000	15,282,000	37,401,000	26.6%
July 2023	$14.25	$0.75	$11.05	$1.15	141,290,000	22,333,000	16,915,000	39,249,000	27.8%
July 2024	**$15.00**	**$0.75**	**$12.20**	**$1.15**	**142,168,000**	**22,484,000**	**18,982,000**	**41,466,000**	**29.2%**

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from unrounded values. The total workforce is estimated from the CPS respondents who were 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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. Values in each step are cumulative of all preceding steps.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

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Wage impacts of increasing the minimum wage under the Raise the Wage Act of 2017, 2017—2024

Date	New minimum wage	New tipped minimum wage	Increase in wages for directly affected only (2016$)	Change in average hourly wage of directly affected workers (2016$)	Change in average annual income of directly affected workers who work year round (2016$)	Real percent change in average annual income of directly affected workers	Increase in wages for all (directly & indirectly) affected workers (2016$)	Change in average hourly wage of all affected workers (2016$)	Change in average annual income of all affected workers who work year round (2016$)	Real percent change in average annual income of all affected workers
July 2017	$9.25	$4.15	$13,157,248,000	$0.97	$1,507	11.9%	$16,749,304,000	$0.59	$932	6.0%
July 2018	$10.10	$5.30	$20,605,898,000	$1.31	$2,047	15.7%	$27,130,532,000	$0.76	$1,209	7.3%
July 2019	$11.00	$6.45	$35,696,497,000	$1.33	$2,118	14.3%	$41,859,338,000	$1.03	$1,663	9.8%
July 2020	$12.00	$7.60	$54,233,716,000	$1.71	$2,750	17.9%	$62,573,360,000	$1.26	$2,039	11.3%
July 2021	$13.00	$8.75	$76,162,451,000	$2.04	$3,323	20.6%	$87,462,083,000	$1.43	$2,349	12.3%
July 2022	$13.50	$9.90	$87,683,352,000	$2.42	$3,964	24.6%	$104,712,606,000	$1.70	$2,800	14.5%
July 2023	$14.25	$11.05	$99,006,956,000	$2.76	$4,538	28.0%	$123,927,577,000	$1.90	$3,158	16.0%
July 2024	$15.00	$12.20	$112,473,568,000	$3.10	$5,121	31.3%	$144,053,712,000	$2.08	$3,474	17.3%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from unrounded values. The total workforce is estimated from the CPS respondents who were 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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. Values in each step are cumulative of all preceding steps.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

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

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
All workers	142,168,000	22,484,000	15.8%	18,983,000	13.4%	41,466,000	29.2%	100.0%
Gender								
Women	68,237,000	12,710,000	18.6%	10,348,000	15.2%	23,058,000	33.8%	55.6%
Men	73,932,000	9,774,000	13.2%	8,634,000	11.7%	18,408,000	24.9%	44.4%
Age								
Age 20 or older	137,069,000	19,503,000	14.2%	17,917,000	13.1%	37,420,000	27.3%	90.2%
Teenager	5,099,000	2,980,000	58.4%	1,066,000	20.9%	4,047,000	79.4%	9.8%
16 to 24	19,579,000	7,871,000	40.2%	4,512,000	23.0%	12,383,000	63.2%	29.9%
25 to 39	48,992,000	6,570,000	13.4%	6,833,000	13.9%	13,403,000	27.4%	32.3%
40 to 54	44,505,000	4,514,000	10.1%	4,506,000	10.1%	9,021,000	20.3%	21.8%
55+	29,092,000	3,528,000	12.1%	3,132,000	10.8%	6,660,000	22.9%	16.1%
Race/ethnicity								
White	83,502,000	11,508,000	13.8%	10,657,000	12.8%	22,165,000	26.5%	53.5%
Black	17,281,000	4,423,000	25.6%	2,510,000	14.5%	6,933,000	40.1%	16.7%
Hispanic	28,076,000	5,105,000	18.2%	4,288,000	15.3%	9,393,000	33.5%	22.7%
Asian	10,074,000	812,000	8.1%	925,000	9.2%	1,737,000	17.2%	4.2%
Other race/ ethnicity	3,235,000	636,000	19.7%	603,000	18.6%	1,239,000	38.3%	3.0%
Family status								
Married parent	36,837,000	3,461,000	9.4%	3,671,000	10.0%	7,133,000	19.4%	17.2%
Single parent	11,014,000	2,456,000	22.3%	2,043,000	18.5%	4,499,000	40.8%	10.8%
Married, no children	38,391,000	4,118,000	10.7%	4,041,000	10.5%	8,160,000	21.3%	19.7%
Unmarried, no children	55,926,000	12,447,000	22.3%	9,228,000	16.5%	21,675,000	38.8%	52.3%
Family income								
Less than $10,000	4,577,000	1,684,000	36.8%	855,000	18.7%	2,540,000	55.5%	6.1%
$10,000 – $14,999	4,268,000	1,509,000	35.4%	842,000	19.7%	2,351,000	55.1%	5.7%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$15,000 – $24,999	9,535,000	3,027,000	31.7%	2,216,000	23.2%	5,243,000	55.0%	12.6%
$25,000 – $34,999	13,693,000	3,237,000	23.6%	2,943,000	21.5%	6,180,000	45.1%	14.9%
$35,000 – $49,999	18,761,000	3,488,000	18.6%	3,070,000	16.4%	6,558,000	35.0%	15.8%
$50,000 – $74,999	28,745,000	3,984,000	13.9%	3,981,000	13.9%	7,966,000	27.7%	19.2%
$75,000 – $99,999	20,516,000	2,237,000	10.9%	2,156,000	10.5%	4,393,000	21.4%	10.6%
$100,000 – $149,999	22,975,000	2,007,000	8.7%	1,806,000	7.9%	3,813,000	16.6%	9.2%
$150,000 or more	19,099,000	1,310,000	6.9%	1,112,000	5.8%	2,422,000	12.7%	5.8%
Industry								
Construction	8,329,000	879,000	10.6%	847,000	10.2%	1,726,000	20.7%	4.2%
Manufacturing	15,517,000	1,771,000	11.4%	1,765,000	11.4%	3,536,000	22.8%	8.5%
Retail trade	16,013,000	4,847,000	30.3%	2,687,000	16.8%	7,534,000	47.0%	18.2%
Agriculture, forestry, fishing	1,470,000	323,000	22.0%	303,000	20.6%	626,000	42.6%	1.5%
Wholesale trade	3,434,000	363,000	10.6%	341,000	9.9%	705,000	20.5%	1.7%
Transportation and utilities	7,673,000	787,000	10.3%	826,000	10.8%	1,613,000	21.0%	3.9%
Information	2,705,000	254,000	9.4%	209,000	7.7%	462,000	17.1%	1.1%
Financial activities	9,500,000	690,000	7.3%	839,000	8.8%	1,529,000	16.1%	3.7%
Administrative and waste management services	5,949,000	1,432,000	24.1%	959,000	16.1%	2,391,000	40.2%	5.8%
Professional, science, management consulting	9,479,000	446,000	4.7%	453,000	4.8%	899,000	9.5%	2.2%
Education	13,800,000	1,606,000	11.6%	1,221,000	8.8%	2,826,000	20.5%	6.8%
Health care	17,094,000	2,288,000	13.4%	2,071,000	12.1%	4,359,000	25.5%	10.5%
Social assistance	3,019,000	723,000	24.0%	451,000	14.9%	1,174,000	38.9%	2.8%
Arts, entertainment, recreation, accommodation	4,436,000	1,171,000	26.4%	877,000	19.8%	2,048,000	46.2%	4.9%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Food and drink service	9,569,000	3,289,000	34.4%	3,197,000	33.4%	6,487,000	67.8%	15.6%
Public administration	7,106,000	450,000	6.3%	567,000	8.0%	1,018,000	14.3%	2.5%
Mining	787,000	40,000	5.1%	44,000	5.7%	84,000	10.7%	0.2%
Other industries	6,290,000	1,123,000	17.9%	1,326,000	21.1%	2,450,000	38.9%	5.9%
Work hours								
Part time (< 20 hours)	7,603,000	3,124,000	41.1%	1,444,000	19.0%	4,568,000	60.1%	11.0%
Mid time (20–34 hours)	19,300,000	6,894,000	35.7%	3,901,000	20.2%	10,795,000	55.9%	26.0%
Full time (35+ hours)	115,265,000	12,466,000	10.8%	13,638,000	11.8%	26,103,000	22.6%	63.0%
Education								
Less than high school	13,026,000	4,798,000	36.8%	2,524,000	19.4%	7,322,000	56.2%	17.7%
High school	37,508,000	7,919,000	21.1%	6,910,000	18.4%	14,830,000	39.5%	35.8%
Some college, no degree	26,330,000	5,392,000	20.5%	4,538,000	17.2%	9,930,000	37.7%	23.9%
Associate degree	14,962,000	1,978,000	13.2%	2,147,000	14.3%	4,125,000	27.6%	9.9%
Bachelor's degree or higher	50,342,000	2,397,000	4.8%	2,863,000	5.7%	5,260,000	10.4%	12.7%
Children								
Children with at least one affected parent	79,419,000	9,817,000	–	9,221,000	–	19,038,000	24.0%	–

Notes: The total workforce is estimated from the CPS respondents who were 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016

Economic Policy Institute

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

State	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected	Cumulative change in total annual wages of all affected workers (2016$)	Cumulative change in average annual earnings of all affected workers (2016$)	Change from under current policy
Alaska	313,000	47,000	15.1%	33,000	10.6%	80,000	25.7%	0.2%	$188,651,000	$2,400	10.9%
Alabama	1,930,000	482,000	25.0%	293,000	15.2%	774,000	40.1%	1.9%	$3,252,486,000	$4,200	21.0%
Arkansas	1,206,000	312,000	25.9%	167,000	13.8%	479,000	39.7%	1.2%	$1,979,669,000	$4,100	20.5%
Arizona	2,937,000	22,000	0.7%	1,045,000	35.6%	1,066,000	36.3%	2.6%	$1,269,026,000	$1,200	5.3%
California	17,734,000	–	0.0%	–	0.0%	–	0.0%	0.0%			
Colorado	2,532,000	27,000	1.1%	724,000	28.6%	751,000	29.6%	1.8%	$918,042,000	$1,200	5.2%
Connecticut	1,613,000	239,000	14.8%	206,000	12.8%	445,000	27.6%	1.1%	$1,202,809,000	$2,700	14.7%
District of Columbia	363,000	–	0.1%	10,000	2.7%	10,000	2.7%	0.0%	$42,133,000	$4,300	13.9%
Delaware	434,000	78,000	18.0%	61,000	14.1%	139,000	32.1%	0.3%	$528,941,000	$3,800	17.8%
Florida	8,621,000	1,958,000	22.7%	1,306,000	15.2%	3,264,000	37.9%	7.9%	$12,201,480,000	$3,700	18.1%
Georgia	4,440,000	1,062,000	23.9%	637,000	14.4%	1,699,000	38.3%	4.1%	$7,413,107,000	$4,400	21.4%
Hawaii	686,000	123,000	17.9%	100,000	14.6%	223,000	32.5%	0.5%	$607,951,000	$2,700	12.8%
Iowa	1,450,000	331,000	22.8%	228,000	15.7%	558,000	38.5%	1.3%	$1,874,748,000	$3,400	17.6%
Idaho	701,000	183,000	26.2%	105,000	15.0%	288,000	41.1%	0.7%	$1,176,000,000	$4,100	20.8%
Illinois	5,787,000	1,185,000	20.5%	739,000	12.8%	1,924,000	33.3%	4.6%	$6,865,013,000	$3,600	18.3%
Indiana	2,940,000	667,000	22.7%	449,000	15.3%	1,116,000	37.9%	2.7%	$4,263,122,000	$3,800	19.4%
Kansas	1,306,000	291,000	22.3%	188,000	14.4%	479,000	36.6%	1.2%	$1,829,064,000	$3,800	19.8%
Kentucky	1,699,000	417,000	24.6%	221,000	13.0%	638,000	37.6%	1.5%	$2,747,773,000	$4,300	21.7%
Louisiana	1,839,000	456,000	24.8%	272,000	14.8%	728,000	39.6%	1.8%	$3,348,961,000	$4,600	22.7%
Massachusetts	3,229,000	396,000	12.3%	447,000	13.9%	843,000	26.1%	2.0%	$1,967,774,000	$2,300	11.8%
Maryland	2,947,000	390,000	13.2%	430,000	14.6%	820,000	27.8%	2.0%	$2,357,419,000	$2,900	13.7%
Maine	563,000	6,000	1.0%	186,000	33.1%	192,000	34.1%	0.5%	$200,595,000	$1,000	4.8%
Michigan	4,226,000	893,000	21.1%	614,000	14.5%	1,507,000	35.7%	3.6%	$4,410,465,000	$2,900	15.0%
Minnesota	2,577,000	403,000	15.7%	300,000	11.6%	703,000	27.3%	1.7%	$1,433,670,000	$2,000	10.7%
Mississippi	1,136,000	342,000	30.1%	162,000	14.3%	504,000	44.4%	1.2%	$2,493,694,000	$4,900	24.6%
Missouri	2,723,000	626,000	23.0%	400,000	14.7%	1,026,000	37.7%	2.5%	$3,830,289,000	$3,700	18.7%
Montana	416,000	100,000	24.1%	62,000	14.9%	162,000	38.9%	0.4%	$490,341,000	$3,000	15.9%
North Carolina	4,379,000	1,084,000	24.8%	605,000	13.8%	1,689,000	38.6%	4.1%	$7,743,440,000	$4,600	23.3%
North Dakota	361,000	53,000	14.8%	50,000	14.0%	104,000	28.8%	0.3%	$324,725,000	$3,100	15.8%
Nebraska	889,000	182,000	20.5%	146,000	16.4%	328,000	36.9%	0.8%	$1,040,134,000	$3,200	16.0%
New Hampshire	662,000	108,000	16.4%	80,000	12.1%	189,000	28.5%	0.5%	$628,915,000	$3,300	17.8%
New Jersey	4,208,000	688,000	16.3%	481,000	11.4%	1,169,000	27.8%	2.8%	$4,075,765,000	$3,500	17.8%
New Mexico	875,000	234,000	26.7%	136,000	15.5%	370,000	42.2%	0.9%	$1,527,206,000	$4,100	21.6%
Nevada	1,310,000	314,000	24.0%	221,000	16.9%	535,000	40.8%	1.3%	$1,874,810,000	$3,500	16.1%
New York	8,646,000	31,000	0.4%	1,026,000	11.9%	1,057,000	12.2%	2.5%	$1,188,309,000	$1,100	4.7%
Ohio	4,993,000	1,116,000	22.4%	672,000	13.5%	1,788,000	35.8%	4.3%	$6,122,617,000	$3,400	18.0%
Oklahoma	1,539,000	362,000	23.5%	234,000	15.2%	595,000	38.7%	1.4%	$2,476,581,000	$4,200	20.6%
Oregon*	1,737,000	3,000	0.1%	512,000	29.5%	515,000	29.6%	1.2%	$370,442,000	$700	3.2%
Pennsylvania	5,731,000	1,217,000	21.2%	814,000	14.2%	2,031,000	35.4%	4.9%	$7,366,193,000	$3,600	19.4%
Rhode Island	495,000	89,000	18.0%	76,000	15.4%	165,000	33.4%	0.4%	$490,702,000	$3,000	15.0%

State	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected	Cumulative change in total annual wages of all affected workers (2016$)	Cumulative change in average annual earnings of all affected workers (2016$)	Change from under current policy
South Carolina	2,023,000	477,000	23.6%	285,000	14.1%	762,000	37.7%	1.8%	$3,165,498,000	$4,200	21.6%
South Dakota	379,000	71,000	18.8%	57,000	15.2%	129,000	34.0%	0.3%	$352,424,000	$2,700	13.9%
Tennessee	2,772,000	663,000	23.9%	420,000	15.2%	1,083,000	39.1%	2.6%	$4,421,745,000	$4,100	20.6%
Texas	12,475,000	2,914,000	23.4%	1,773,000	14.2%	4,687,000	37.6%	11.3%	$20,386,504,000	$4,400	21.6%
Utah	1,346,000	286,000	21.3%	183,000	13.6%	469,000	34.9%	1.1%	$1,603,001,000	$3,400	19.0%
Vermont	286,000	22,000	7.6%	65,000	22.9%	87,000	30.6%	0.2%	$176,136,000	$2,000	9.8%
Virginia	3,887,000	786,000	20.2%	524,000	13.5%	1,310,000	33.7%	3.2%	$5,289,396,000	$4,000	21.2%
Washington	3,209,000	35,000	1.1%	742,000	23.1%	778,000	24.2%	1.9%	$238,015,000	$300	1.3%
West Virginia	659,000	145,000	22.1%	99,000	15.0%	244,000	37.1%	0.6%	$942,090,000	$3,900	19.1%
Wisconsin	2,715,000	519,000	19.1%	364,000	13.4%	883,000	32.5%	2.1%	$3,053,920,000	$3,500	18.8%
Wyoming	250,000	49,000	19.8%	32,000	12.8%	81,000	32.5%	0.2%	$301,921,000	$3,700	19.8%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from un-rounded values. The total workforce is estimated from the CPS respondents who were 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual week-ly hours. 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 per-cent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projec-tions for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of female U.S. workers who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Women	68,237,000	12,710,000	18.6%	10,348,000	15.2%	23,058,000	33.8%	100.0%
Age								
20 +	65,667,000	11,184,000	17.0%	9,795,000	14.9%	20,979,000	31.9%	91.0%
Under 20	2,570,000	1,526,000	59.4%	553,000	21.5%	2,079,000	80.9%	9.0%
16 to 24	9,643,000	4,065,000	42.2%	2,334,000	24.2%	6,399,000	66.4%	27.8%
25 to 39	22,746,000	3,656,000	16.1%	3,543,000	15.6%	7,199,000	31.6%	31.2%
40 to 54	21,458,000	2,820,000	13.1%	2,636,000	12.3%	5,455,000	25.4%	23.7%
55+	14,389,000	2,168,000	15.1%	1,836,000	12.8%	4,004,000	27.8%	17.4%
Race/ethnicity								
White	40,356,000	6,563,000	16.3%	6,145,000	15.2%	12,708,000	31.5%	55.1%
Black	9,315,000	2,643,000	28.4%	1,370,000	14.7%	4,013,000	43.1%	17.4%
Hispanic	12,108,000	2,676,000	22.1%	1,973,000	16.3%	4,648,000	38.4%	20.2%
Asian	4,801,000	467,000	9.7%	511,000	10.6%	978,000	20.4%	4.2%
Other race/ ethnicity	1,656,000	362,000	21.8%	349,000	21.1%	711,000	42.9%	3.1%
Family status								
Married parent	15,642,000	2,034,000	13.0%	1,958,000	12.5%	3,991,000	25.5%	17.3%
Single parent	7,996,000	2,001,000	25.0%	1,562,000	19.5%	3,564,000	44.6%	15.5%
Married, no children	18,143,000	2,405,000	13.3%	2,340,000	12.9%	4,745,000	26.2%	20.6%
Unmarried, no children	26,455,000	6,269,000	23.7%	4,489,000	17.0%	10,758,000	40.7%	46.7%
Family income								
Less than $10,000	2,420,000	982,000	40.6%	484,000	20.0%	1,466,000	60.6%	6.4%
$10,000 – $14,999	2,276,000	919,000	40.4%	452,000	19.9%	1,371,000	60.2%	5.9%
$15,000 – $24,999	4,745,000	1,689,000	35.6%	1,140,000	24.0%	2,830,000	59.6%	12.3%
$25,000 – $34,999	6,648,000	1,787,000	26.9%	1,475,000	22.2%	3,262,000	49.1%	14.1%
$35,000 –	8,944,000	1,981,000	22.2%	1,592,000	17.8%	3,573,000	39.9%	15.5%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$49,999								
$50,000 – $74,999	13,839,000	2,218,000	16.0%	2,285,000	16.5%	4,503,000	32.5%	19.5%
$75,000 – $99,999	9,740,000	1,258,000	12.9%	1,270,000	13.0%	2,528,000	26.0%	11.0%
$100,000 – $149,999	10,805,000	1,136,000	10.5%	1,033,000	9.6%	2,169,000	20.1%	9.4%
$150,000 or more	8,820,000	739,000	8.4%	617,000	7.0%	1,356,000	15.4%	5.9%
Industry								
Construction	761,000	98,000	12.9%	75,000	9.8%	172,000	22.7%	0.7%
Manufacturing	4,541,000	779,000	17.2%	650,000	14.3%	1,429,000	31.5%	6.2%
Retail trade	7,722,000	2,754,000	35.7%	1,381,000	17.9%	4,135,000	53.5%	17.9%
Agriculture, forestry, fishing	336,000	75,000	22.4%	69,000	20.4%	144,000	42.8%	0.6%
Wholesale trade	1,015,000	119,000	11.7%	109,000	10.7%	227,000	22.4%	1.0%
Transportation and utilities	1,845,000	237,000	12.8%	246,000	13.4%	483,000	26.2%	2.1%
Information	1,134,000	146,000	12.9%	114,000	10.1%	261,000	23.0%	1.1%
Financial activities	5,186,000	443,000	8.5%	572,000	11.0%	1,016,000	19.6%	4.4%
Administrative and waste management services	2,379,000	665,000	27.9%	394,000	16.6%	1,059,000	44.5%	4.6%
Professional, science, management consulting	4,152,000	307,000	7.4%	294,000	7.1%	601,000	14.5%	2.6%
Education	9,464,000	1,143,000	12.1%	926,000	9.8%	2,069,000	21.9%	9.0%
Health care	13,475,000	1,970,000	14.6%	1,722,000	12.8%	3,692,000	27.4%	16.0%
Social assistance	2,497,000	635,000	25.4%	385,000	15.4%	1,019,000	40.8%	4.4%
Arts, entertainment, recreation, accommodation	2,144,000	654,000	30.5%	439,000	20.5%	1,092,000	50.9%	4.7%
Food and drink service	4,963,000	1,791,000	36.1%	1,791,000	36.1%	3,582,000	72.2%	15.5%
Public administration	3,233,000	214,000	6.6%	282,000	8.7%	496,000	15.4%	2.2%
Mining	101,000	8,000	8.2%	7,000	7.0%	15,000	15.2%	0.1%

Appendix Table 5 (cont.)

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Other industries	3,287,000	673,000	20.5%	893,000	27.2%	1,566,000	47.6%	6.8%
Occupation								
Management	9,869,000	422,000	4.3%	591,000	6.0%	1,013,000	10.3%	4.4%
Professional	19,089,000	1,475,000	7.7%	1,386,000	7.3%	2,860,000	15.0%	12.4%
Service	14,464,000	4,770,000	33.0%	4,263,000	29.5%	9,033,000	62.5%	39.2%
Sales	7,285,000	2,777,000	38.1%	1,155,000	15.9%	3,932,000	54.0%	17.1%
Office and admin. support	12,926,000	1,996,000	15.4%	2,029,000	15.7%	4,024,000	31.1%	17.5%
Farming, forestry, and fisheries	249,000	72,000	29.0%	60,000	24.0%	132,000	53.0%	0.6%
Construction and extraction	189,000	51,000	26.8%	30,000	15.6%	80,000	42.4%	0.3%
Installation, maintanence, and repair	171,000	30,000	17.3%	22,000	12.9%	52,000	30.2%	0.2%
Transportation	1,545,000	434,000	28.1%	305,000	19.7%	739,000	47.8%	3.2%
Other occupations	2,449,000	684,000	27.9%	508,000	20.8%	1,193,000	48.7%	5.2%
Work hours								
Part time (< 20 hours)	4,987,000	1,963,000	39.4%	962,000	19.3%	2,924,000	58.6%	12.7%
Mid time (20–34 hours)	12,462,000	4,234,000	34.0%	2,568,000	20.6%	6,801,000	54.6%	29.5%
Full time (35+ hours)	50,787,000	6,513,000	12.8%	6,819,000	13.4%	13,332,000	26.3%	57.8%
Education								
Less than high school	5,059,000	2,385,000	47.1%	1,019,000	20.1%	3,404,000	67.3%	14.8%
High school	16,118,000	4,386,000	27.2%	3,532,000	21.9%	7,918,000	49.1%	34.3%
Some college, no degree	13,250,000	3,175,000	24.0%	2,708,000	20.4%	5,884,000	44.4%	25.5%
Associate degree	8,085,000	1,289,000	15.9%	1,336,000	16.5%	2,625,000	32.5%	11.4%
Bachelor's degree or higher	25,726,000	1,474,000	5.7%	1,753,000	6.8%	3,227,000	12.5%	14.0%
Sector								
For profit	49,465,000	10,655,000	21.5%	8,404,000	17.0%	19,059,000	38.5%	82.7%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Government	12,129,000	1,235,000	10.2%	1,164,000	9.6%	2,399,000	19.8%	10.4%
Nonprofit	6,642,000	820,000	12.3%	780,000	11.7%	1,600,000	24.1%	6.9%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from un-rounded values. The total workforce is estimated from the CPS respondents who were female, 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usu-al weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projec-tions for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of white U.S. workers who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
White workers	83,502,000	11,508,000	13.8%	10,657,000	12.8%	22,165,000	26.5%	100.0%
Gender								
Female	40,356,000	6,563,000	16.3%	6,145,000	15.2%	12,708,000	31.5%	57.3%
Male	43,146,000	4,945,000	11.5%	4,512,000	10.5%	9,456,000	21.9%	42.7%
Age								
20 +	80,567,000	9,690,000	12.0%	9,992,000	12.4%	19,682,000	24.4%	88.8%
Under 20	2,935,000	1,818,000	61.9%	664,000	22.6%	2,483,000	84.6%	11.2%
16 to 24	10,543,000	4,383,000	41.6%	2,643,000	25.1%	7,026,000	66.6%	31.7%
25 to 39	26,315,000	2,834,000	10.8%	3,466,000	13.2%	6,300,000	23.9%	28.4%
40 to 54	26,278,000	2,050,000	7.8%	2,404,000	9.1%	4,454,000	16.9%	20.1%
55+	20,366,000	2,241,000	11.0%	2,143,000	10.5%	4,384,000	21.5%	19.8%
Family status								
Married parent	21,415,000	1,560,000	7.3%	1,863,000	8.7%	3,422,000	16.0%	15.4%
Single parent	4,558,000	816,000	17.9%	855,000	18.7%	1,671,000	36.7%	7.5%
Married, no children	25,926,000	2,445,000	9.4%	2,584,000	10.0%	5,029,000	19.4%	22.7%
Unmarried, no children	31,603,000	6,687,000	21.2%	5,355,000	16.9%	12,042,000	38.1%	54.3%
Family income								
Less than $10,000	1,830,000	618,000	33.8%	361,000	19.7%	979,000	53.5%	4.4%
$10,000 – $14,999	1,707,000	581,000	34.0%	362,000	21.2%	943,000	55.2%	4.3%
$15,000 – $24,999	3,959,000	1,260,000	31.8%	1,009,000	25.5%	2,269,000	57.3%	10.2%
$25,000 – $34,999	6,163,000	1,365,000	22.1%	1,450,000	23.5%	2,815,000	45.7%	12.7%
$35,000 – $49,999	9,569,000	1,618,000	16.9%	1,620,000	16.9%	3,238,000	33.8%	14.6%
$50,000 – $74,999	17,158,000	2,295,000	13.4%	2,370,000	13.8%	4,666,000	27.2%	21.0%
$75,000 – $99,999	13,538,000	1,429,000	10.6%	1,402,000	10.4%	2,831,000	20.9%	12.8%
$100,000 –	16,123,000	1,407,000	8.7%	1,283,000	8.0%	2,691,000	16.7%	12.1%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$149,999								
$150,000 or more	13,456,000	934,000	6.9%	800,000	5.9%	1,734,000	12.9%	7.8%
Industry								
Construction	4,569,000	343,000	7.5%	384,000	8.4%	727,000	15.9%	3.3%
Manufacturing	9,461,000	776,000	8.2%	941,000	9.9%	1,717,000	18.1%	7.7%
Retail trade	9,408,000	2,852,000	30.3%	1,664,000	17.7%	4,516,000	48.0%	20.4%
Agriculture, forestry, fishing	700,000	159,000	22.7%	131,000	18.7%	290,000	41.4%	1.3%
Wholesale trade	2,121,000	179,000	8.4%	190,000	8.9%	369,000	17.4%	1.7%
Transportation and utilities	4,161,000	352,000	8.5%	442,000	10.6%	794,000	19.1%	3.6%
Information	1,735,000	153,000	8.8%	123,000	7.1%	276,000	15.9%	1.2%
Financial activities	6,114,000	417,000	6.8%	521,000	8.5%	938,000	15.3%	4.2%
Administrative and waste management services	2,651,000	498,000	18.8%	422,000	15.9%	920,000	34.7%	4.2%
Professional, science, management consulting	6,254,000	294,000	4.7%	304,000	4.9%	599,000	9.6%	2.7%
Education	9,369,000	956,000	10.2%	802,000	8.6%	1,758,000	18.8%	7.9%
Health care	9,955,000	1,061,000	10.7%	1,187,000	11.9%	2,248,000	22.6%	10.1%
Social assistance	1,624,000	421,000	25.9%	248,000	15.3%	669,000	41.2%	3.0%
Arts, entertainment, recreation, accommodation	2,392,000	629,000	26.3%	479,000	20.0%	1,107,000	46.3%	5.0%
Food and drink service	4,583,000	1,533,000	33.5%	1,756,000	38.3%	3,289,000	71.8%	14.8%
Public administration	4,291,000	254,000	5.9%	330,000	7.7%	584,000	13.6%	2.6%
Mining	542,000	26,000	4.9%	26,000	4.8%	52,000	9.7%	0.2%
Other industries	3,573,000	605,000	16.9%	707,000	19.8%	1,312,000	36.7%	5.9%
Occupation								
Management	14,348,000	447,000	3.1%	599,000	4.2%	1,046,000	7.3%	4.7%
Professional	21,677,000	1,273,000	5.9%	1,234,000	5.7%	2,507,000	11.6%	11.3%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Service	12,167,000	3,640,000	29.9%	3,716,000	30.5%	7,356,000	60.5%	33.2%
Sales	8,658,000	2,256,000	26.1%	1,247,000	14.4%	3,503,000	40.5%	15.8%
Office and admin. support	10,779,000	1,696,000	15.7%	1,743,000	16.2%	3,440,000	31.9%	15.5%
Farming, forestry, and fisheries	433,000	131,000	30.2%	89,000	20.5%	219,000	50.7%	1.0%
Construction and extraction	3,436,000	252,000	7.3%	302,000	8.8%	554,000	16.1%	2.5%
Installation, maintenance, and repair	2,919,000	226,000	7.7%	248,000	8.5%	473,000	16.2%	2.1%
Transportation	4,610,000	967,000	21.0%	790,000	17.1%	1,757,000	38.1%	7.9%
Other occupations	4,475,000	619,000	13.8%	690,000	15.4%	1,310,000	29.3%	5.9%
Work hours								
Part time (< 20 hours)	5,051,000	2,104,000	41.7%	1,037,000	20.5%	3,141,000	62.2%	14.2%
Mid time (20–34 hours)	11,020,000	3,765,000	34.2%	2,365,000	21.5%	6,130,000	55.6%	27.7%
Full time (35+ hours)	67,431,000	5,638,000	8.4%	7,255,000	10.8%	12,894,000	19.1%	58.2%
Education								
Less than high school	4,004,000	1,853,000	46.3%	840,000	21.0%	2,693,000	67.3%	12.2%
High school	20,718,000	3,960,000	19.1%	3,785,000	18.3%	7,745,000	37.4%	34.9%
Some college, no degree	15,121,000	3,001,000	19.8%	2,682,000	17.7%	5,683,000	37.6%	25.6%
Associate degree	9,695,000	1,150,000	11.9%	1,387,000	14.3%	2,537,000	26.2%	11.4%
Bachelor's degree or higher	33,963,000	1,543,000	4.5%	1,963,000	5.8%	3,506,000	10.3%	15.8%
Sector								
For profit	63,342,000	9,670,000	15.3%	8,810,000	13.9%	18,480,000	29.2%	83.4%
Government	13,422,000	1,116,000	8.3%	1,114,000	8.3%	2,230,000	16.6%	10.1%
Nonprofit	6,738,000	721,000	10.7%	732,000	10.9%	1,454,000	21.6%	6.6%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from un-rounded values. The total workforce is estimated from the CPS respondents who were white, non-Hispanic, 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current

Appendix
Table 16
(cont.)

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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of black U.S. workers who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Black workers	17,281,000	4,423,000	25.6%	2,510,000	14.5%	6,933,000	40.1%	100.0%
Gender								
Female	9,315,000	2,643,000	28.4%	1,370,000	14.7%	4,013,000	43.1%	57.9%
Male	7,966,000	1,780,000	22.4%	1,140,000	14.3%	2,920,000	36.7%	42.1%
Age								
20 +	16,749,000	4,037,000	24.1%	2,435,000	14.5%	6,471,000	38.6%	93.3%
Under 20	533,000	387,000	72.6%	75,000	14.1%	462,000	86.7%	6.7%
16 to 24	2,447,000	1,381,000	56.5%	457,000	18.7%	1,838,000	75.1%	26.5%
25 to 39	6,241,000	1,483,000	23.8%	1,044,000	16.7%	2,527,000	40.5%	36.4%
40 to 54	5,509,000	949,000	17.2%	647,000	11.7%	1,595,000	29.0%	23.0%
55+	3,085,000	610,000	19.8%	363,000	11.8%	973,000	31.5%	14.0%
Family status								
Married parent	3,031,000	449,000	14.8%	343,000	11.3%	791,000	26.1%	11.4%
Single parent	2,640,000	851,000	32.3%	474,000	18.0%	1,326,000	50.2%	19.1%
Married, no children	3,232,000	526,000	16.3%	423,000	13.1%	949,000	29.4%	13.7%
Unmarried, no children	8,378,000	2,597,000	31.0%	1,270,000	15.2%	3,867,000	46.2%	55.8%
Family income								
Less than $10,000	1,051,000	525,000	50.0%	172,000	16.4%	697,000	66.3%	10.1%
$10,000 – $14,999	813,000	426,000	52.4%	121,000	14.9%	547,000	67.3%	7.9%
$15,000 – $24,999	1,788,000	774,000	43.3%	348,000	19.5%	1,122,000	62.7%	16.2%
$25,000 – $34,999	2,383,000	709,000	29.7%	516,000	21.7%	1,225,000	51.4%	17.7%
$35,000 – $49,999	2,828,000	696,000	24.6%	444,000	15.7%	1,139,000	40.3%	16.4%
$50,000 – $74,999	3,443,000	651,000	18.9%	462,000	13.4%	1,113,000	32.3%	16.1%
$75,000 – $99,999	2,035,000	307,000	15.1%	222,000	10.9%	529,000	26.0%	7.6%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$100,000 – $149,999	1,739,000	207,000	11.9%	142,000	8.2%	349,000	20.1%	5.0%
$150,000 or more	1,201,000	129,000	10.7%	82,000	6.9%	211,000	17.6%	3.0%
Industry								
Construction	463,000	74,000	16.0%	39,000	8.3%	113,000	24.3%	1.6%
Manufacturing	1,563,000	366,000	23.5%	265,000	17.0%	631,000	40.4%	9.1%
Retail trade	1,965,000	824,000	41.9%	301,000	15.3%	1,125,000	57.2%	16.2%
Agriculture, forestry, fishing	49,000	26,000	53.4%	12,000	25.5%	38,000	78.9%	0.6%
Wholesale trade	286,000	64,000	22.5%	30,000	10.3%	94,000	32.9%	1.4%
Transportation and utilities	1,374,000	226,000	16.5%	161,000	11.7%	387,000	28.2%	5.6%
Information	310,000	40,000	12.8%	30,000	9.8%	70,000	22.6%	1.0%
Financial activities	1,009,000	110,000	10.9%	107,000	10.6%	217,000	21.5%	3.1%
Administrative and waste management services	950,000	358,000	37.7%	159,000	16.8%	517,000	54.4%	7.5%
Professional, science, management consulting	652,000	40,000	6.2%	29,000	4.4%	69,000	10.6%	1.0%
Education	1,595,000	303,000	19.0%	150,000	9.4%	453,000	28.4%	6.5%
Health care	2,897,000	728,000	25.1%	442,000	15.3%	1,170,000	40.4%	16.9%
Social assistance	566,000	157,000	27.8%	79,000	13.9%	236,000	41.7%	3.4%
Arts, entertainment, recreation, accommodation	489,000	185,000	37.8%	85,000	17.4%	270,000	55.2%	3.9%
Food and drink service	1,260,000	634,000	50.3%	347,000	27.6%	981,000	77.9%	14.2%
Public administration	1,177,000	120,000	10.2%	113,000	9.6%	233,000	19.8%	3.4%
Mining	47,000	3,000	6.6%	3,000	6.1%	6,000	12.7%	0.1%
Other industries	632,000	164,000	25.9%	159,000	25.1%	322,000	51.0%	4.7%
Occupation								
Management	1,854,000	110,000	5.9%	98,000	5.3%	208,000	11.2%	3.0%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Professional	3,341,000	348,000	10.4%	224,000	6.7%	572,000	17.1%	8.2%
Service	4,306,000	1,727,000	40.1%	1,059,000	24.6%	2,786,000	64.7%	40.2%
Sales	1,661,000	750,000	45.2%	198,000	11.9%	948,000	57.1%	13.7%
Office and admin. support	2,497,000	546,000	21.9%	365,000	14.6%	911,000	36.5%	13.1%
Farming, forestry, and fisheries	46,000	30,000	64.9%	12,000	25.3%	42,000	90.3%	0.6%
Construction and extraction	434,000	80,000	18.5%	43,000	9.9%	123,000	28.3%	1.8%
Installation, maintenance, and repair	392,000	52,000	13.3%	25,000	6.4%	77,000	19.7%	1.1%
Transportation	1,648,000	438,000	26.6%	260,000	15.8%	698,000	42.4%	10.1%
Other occupations	1,102,000	342,000	31.1%	226,000	20.5%	568,000	51.6%	8.2%
Work hours								
Part time (< 20 hours)	713,000	419,000	58.8%	89,000	12.5%	508,000	71.3%	7.3%
Mid time (20–34 hours)	2,518,000	1,331,000	52.9%	443,000	17.6%	1,774,000	70.5%	25.6%
Full time (35+ hours)	14,051,000	2,673,000	19.0%	1,978,000	14.1%	4,651,000	33.1%	67.1%
Education								
Less than high school	1,252,000	706,000	56.4%	214,000	17.1%	920,000	73.5%	13.3%
High school	5,473,000	1,840,000	33.6%	1,032,000	18.8%	2,872,000	52.5%	41.4%
Some college, no degree	4,024,000	1,170,000	29.1%	680,000	16.9%	1,850,000	46.0%	26.7%
Associate degree	1,870,000	383,000	20.5%	297,000	15.9%	680,000	36.4%	9.8%
Bachelor's degree or higher	4,662,000	323,000	6.9%	288,000	6.2%	611,000	13.1%	8.8%
Sector								
For profit	12,859,000	3,705,000	28.8%	2,031,000	15.8%	5,736,000	44.6%	82.7%
Government	3,192,000	466,000	14.6%	327,000	10.3%	793,000	24.9%	11.4%
Nonprofit	1,231,000	252,000	20.5%	151,000	12.3%	403,000	32.8%	5.8%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated

from unrounded values. The total workforce is estimated from the CPS respondents who were black (non-Hispanic), 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of Hispanic U.S. workers who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Hispanic workers	28,076,000	5,105,000	18.2%	4,288,000	15.3%	9,393,000	33.5%	100.0%
Gender								
Female	12,108,000	2,676,000	22.1%	1,973,000	16.3%	4,648,000	38.4%	49.5%
Male	15,969,000	2,429,000	15.2%	2,315,000	14.5%	4,744,000	29.7%	50.5%
Age								
20 +	26,903,000	4,550,000	16.9%	4,057,000	15.1%	8,607,000	32.0%	91.6%
Under 20	1,173,000	555,000	47.3%	231,000	19.7%	786,000	67.0%	8.4%
16 to 24	4,829,000	1,559,000	32.3%	1,041,000	21.5%	2,599,000	53.8%	27.7%
25 to 39	11,267,000	1,820,000	16.2%	1,755,000	15.6%	3,575,000	31.7%	38.1%
40 to 54	8,567,000	1,215,000	14.2%	1,062,000	12.4%	2,277,000	26.6%	24.2%
55+	3,414,000	511,000	15.0%	430,000	12.6%	941,000	27.6%	10.0%
Family status								
Married parent	8,318,000	1,171,000	14.1%	1,114,000	13.4%	2,285,000	27.5%	24.3%
Single parent	3,113,000	693,000	22.2%	566,000	18.2%	1,258,000	40.4%	13.4%
Married, no children	5,696,000	873,000	15.3%	710,000	12.5%	1,583,000	27.8%	16.8%
Unmarried, no children	10,949,000	2,369,000	21.6%	1,898,000	17.3%	4,266,000	39.0%	45.4%
Family income								
Less than $10,000	1,250,000	422,000	33.8%	238,000	19.0%	660,000	52.8%	7.0%
$10,000 – $14,999	1,405,000	411,000	29.2%	272,000	19.4%	683,000	48.6%	7.3%
$15,000 – $24,999	3,038,000	824,000	27.1%	695,000	22.9%	1,519,000	50.0%	16.2%
$25,000 – $34,999	4,087,000	944,000	23.1%	750,000	18.4%	1,694,000	41.4%	18.0%
$35,000 – $49,999	4,871,000	940,000	19.3%	763,000	15.7%	1,703,000	35.0%	18.1%
$50,000 – $74,999	5,714,000	810,000	14.2%	823,000	14.4%	1,633,000	28.6%	17.4%
$75,000 – $99,999	3,126,000	353,000	11.3%	378,000	12.1%	730,000	23.4%	7.8%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$100,000 – $149,999	2,846,000	251,000	8.8%	223,000	7.8%	474,000	16.7%	5.0%
$150,000 or more	1,741,000	151,000	8.7%	146,000	8.4%	297,000	17.1%	3.2%
Industry								
Construction	2,975,000	440,000	14.8%	401,000	13.5%	841,000	28.3%	9.0%
Manufacturing	2,980,000	516,000	17.3%	425,000	14.2%	940,000	31.6%	10.0%
Retail trade	3,230,000	825,000	25.5%	517,000	16.0%	1,342,000	41.6%	14.3%
Agriculture, forestry, fishing	680,000	133,000	19.6%	150,000	22.0%	283,000	41.6%	3.0%
Wholesale trade	744,000	102,000	13.7%	103,000	13.9%	205,000	27.5%	2.2%
Transportation and utilities	1,517,000	151,000	10.0%	171,000	11.2%	322,000	21.2%	3.4%
Information	370,000	46,000	12.5%	47,000	12.7%	93,000	25.2%	1.0%
Financial activities	1,397,000	130,000	9.3%	152,000	10.9%	282,000	20.2%	3.0%
Administrative and waste management services	1,963,000	514,000	26.2%	317,000	16.2%	832,000	42.4%	8.9%
Professional, science, management consulting	1,030,000	77,000	7.4%	80,000	7.8%	157,000	15.2%	1.7%
Education	1,814,000	234,000	12.9%	187,000	10.3%	421,000	23.2%	4.5%
Health care	2,447,000	353,000	14.4%	304,000	12.4%	656,000	26.8%	7.0%
Social assistance	592,000	113,000	19.1%	87,000	14.7%	200,000	33.8%	2.1%
Arts, entertainment, recreation, accommodation	1,012,000	258,000	25.5%	188,000	18.6%	446,000	44.1%	4.7%
Food and drink service	2,779,000	860,000	30.9%	824,000	29.7%	1,684,000	60.6%	17.9%
Public administration	1,018,000	62,000	6.1%	72,000	7.1%	134,000	13.2%	1.4%
Mining	152,000	7,000	4.8%	15,000	9.8%	22,000	14.6%	0.2%
Other industries	1,377,000	285,000	20.7%	248,000	18.0%	533,000	38.7%	5.7%
Occupation								
Management	2,525,000	114,000	4.5%	173,000	6.9%	288,000	11.4%	3.1%
Professional	3,533,000	246,000	7.0%	257,000	7.3%	504,000	14.3%	5.4%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Service	7,043,000	1,929,000	27.4%	1,616,000	22.9%	3,545,000	50.3%	37.7%
Sales	2,686,000	730,000	27.2%	383,000	14.3%	1,113,000	41.4%	11.9%
Office and admin. support	3,332,000	526,000	15.8%	490,000	14.7%	1,016,000	30.5%	10.8%
Farming, forestry, and fisheries	570,000	119,000	20.9%	137,000	24.1%	256,000	45.0%	2.7%
Construction and extraction	2,748,000	405,000	14.7%	389,000	14.2%	794,000	28.9%	8.5%
Installation, maintenance, and repair	1,026,000	147,000	14.3%	105,000	10.3%	253,000	24.6%	2.7%
Transportation	2,356,000	441,000	18.7%	371,000	15.7%	811,000	34.4%	8.6%
Other occupations	2,256,000	447,000	19.8%	366,000	16.2%	813,000	36.0%	8.7%
Work hours								
Part time (< 20 hours)	1,162,000	391,000	33.7%	212,000	18.2%	603,000	51.9%	6.4%
Mid time (20–34 hours)	4,073,000	1,344,000	33.0%	772,000	19.0%	2,116,000	52.0%	22.5%
Full time (35+ hours)	22,842,000	3,370,000	14.8%	3,304,000	14.5%	6,674,000	29.2%	71.1%
Education								
Less than high school	6,840,000	1,949,000	28.5%	1,261,000	18.4%	3,210,000	46.9%	34.2%
High school	8,778,000	1,663,000	18.9%	1,591,000	18.1%	3,254,000	37.1%	34.6%
Some college, no degree	5,127,000	864,000	16.9%	809,000	15.8%	1,673,000	32.6%	17.8%
Associate degree	2,326,000	337,000	14.5%	310,000	13.3%	647,000	27.8%	6.9%
Bachelor's degree or higher	5,004,000	291,000	5.8%	317,000	6.3%	608,000	12.2%	6.5%
Sector								
For profit	24,031,000	4,722,000	19.6%	3,905,000	16.3%	8,627,000	35.9%	91.9%
Government	2,948,000	263,000	8.9%	256,000	8.7%	519,000	17.6%	5.5%
Nonprofit	1,096,000	120,000	10.9%	126,000	11.5%	246,000	22.4%	2.6%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from un-rounded values. The total workforce is estimated from the CPS respondents who were Hispanic (any race), 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earn-ings and usual weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of Asian U.S. workers who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Asian workers	10,074,000	812,000	8.1%	925,000	9.2%	1,737,000	17.2%	100.0%
Gender								
Female	4,801,000	467,000	9.7%	511,000	10.6%	978,000	20.4%	56.3%
Male	5,273,000	345,000	6.5%	414,000	7.9%	759,000	14.4%	43.7%
Age								
20 +	9,864,000	724,000	7.3%	892,000	9.0%	1,616,000	16.4%	93.0%
Under 20	210,000	88,000	41.9%	33,000	15.7%	121,000	57.6%	7.0%
16 to 24	1,009,000	243,000	24.1%	166,000	16.4%	409,000	40.5%	23.5%
25 to 39	3,918,000	249,000	6.4%	325,000	8.3%	574,000	14.6%	33.0%
40 to 54	3,340,000	206,000	6.2%	291,000	8.7%	497,000	14.9%	28.6%
55+	1,807,000	114,000	6.3%	144,000	8.0%	258,000	14.3%	14.8%
Family status								
Married parent	3,412,000	216,000	6.3%	269,000	7.9%	485,000	14.2%	27.9%
Single parent	322,000	32,000	10.0%	43,000	13.3%	75,000	23.3%	4.3%
Married, no children	2,965,000	203,000	6.8%	243,000	8.2%	445,000	15.0%	25.6%
Unmarried, no children	3,375,000	361,000	10.7%	371,000	11.0%	731,000	21.7%	42.1%
Family income								
Less than $10,000	284,000	56,000	19.9%	41,000	14.5%	97,000	34.3%	5.6%
$10,000 – $14,999	220,000	51,000	23.3%	44,000	19.9%	95,000	43.2%	5.5%
$15,000 – $24,999	514,000	88,000	17.1%	100,000	19.5%	188,000	36.6%	10.8%
$25,000 – $34,999	717,000	130,000	18.1%	142,000	19.8%	272,000	37.9%	15.7%
$35,000 – $49,999	1,050,000	129,000	12.3%	147,000	14.0%	276,000	26.3%	15.9%
$50,000 – $74,999	1,788,000	124,000	7.0%	213,000	11.9%	338,000	18.9%	19.4%
$75,000 – $99,999	1,355,000	84,000	6.2%	89,000	6.6%	173,000	12.8%	10.0%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$100,000 – $149,999	1,810,000	84,000	4.6%	98,000	5.4%	182,000	10.1%	10.5%
$150,000 or more	2,336,000	65,000	2.8%	50,000	2.2%	115,000	4.9%	6.6%
Industry								
Construction	184,000	10,000	5.6%	11,000	5.7%	21,000	11.4%	1.2%
Manufacturing	1,244,000	79,000	6.3%	97,000	7.8%	175,000	14.1%	10.1%
Retail trade	999,000	193,000	19.3%	111,000	11.1%	304,000	30.4%	17.5%
Agriculture, forestry, fishing	19,000	3,000	14.6%	2,000	12.8%	5,000	27.4%	0.3%
Wholesale trade	228,000	12,000	5.3%	14,000	6.2%	26,000	11.5%	1.5%
Transportation and utilities	459,000	31,000	6.7%	23,000	5.0%	54,000	11.7%	3.1%
Information	233,000	9,000	3.8%	3,000	1.4%	12,000	5.2%	0.7%
Financial activities	815,000	19,000	2.3%	31,000	3.8%	50,000	6.1%	2.9%
Administrative and waste management services	247,000	36,000	14.6%	28,000	11.2%	64,000	25.7%	3.7%
Professional, science, management consulting	1,374,000	25,000	1.8%	30,000	2.2%	55,000	4.0%	3.2%
Education	721,000	62,000	8.7%	50,000	7.0%	113,000	15.6%	6.5%
Health care	1,425,000	85,000	6.0%	80,000	5.6%	165,000	11.6%	9.5%
Social assistance	145,000	11,000	7.5%	16,000	11.0%	27,000	18.5%	1.5%
Arts, entertainment, recreation, accommodation	351,000	47,000	13.4%	77,000	21.9%	124,000	35.3%	7.1%
Food and drink service	661,000	141,000	21.4%	163,000	24.6%	304,000	46.0%	17.5%
Public administration	380,000	4,000	1.0%	17,000	4.6%	21,000	5.6%	1.2%
Mining	27,000	1,000	3.8%	–	0.0%	1,000	3.8%	0.1%
Other industries	563,000	45,000	7.9%	172,000	30.6%	217,000	38.5%	12.5%
Occupation								
Management	1,695,000	33,000	1.9%	42,000	2.5%	75,000	4.4%	4.3%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Professional	3,516,000	88,000	2.5%	104,000	2.9%	192,000	5.5%	11.0%
Service	1,684,000	285,000	16.9%	441,000	26.2%	726,000	43.1%	41.8%
Sales	866,000	152,000	17.6%	89,000	10.3%	241,000	27.9%	13.9%
Office and admin. support	1,010,000	100,000	9.9%	86,000	8.5%	186,000	18.4%	10.7%
Farming, forestry, and fisheries	18,000	4,000	22.4%	2,000	11.2%	6,000	33.7%	0.3%
Construction and extraction	122,000	8,000	6.8%	10,000	8.2%	18,000	15.0%	1.1%
Installation, maintenance, and repair	166,000	12,000	7.0%	16,000	9.6%	28,000	16.6%	1.6%
Transportation	388,000	52,000	13.5%	47,000	12.2%	100,000	25.7%	5.7%
Other occupations	608,000	77,000	12.6%	89,000	14.6%	166,000	27.3%	9.5%
Work hours								
Part time (< 20 hours)	461,000	110,000	23.9%	66,000	14.4%	177,000	38.3%	10.2%
Mid time (20–34 hours)	1,142,000	227,000	19.9%	187,000	16.4%	414,000	36.3%	23.8%
Full time (35+ hours)	8,470,000	475,000	5.6%	672,000	7.9%	1,146,000	13.5%	66.0%
Education								
Less than high school	637,000	154,000	24.1%	131,000	20.6%	285,000	44.7%	16.4%
High school	1,713,000	256,000	14.9%	302,000	17.6%	558,000	32.5%	32.1%
Some college, no degree	1,226,000	168,000	13.7%	177,000	14.4%	345,000	28.1%	19.8%
Associate degree	697,000	47,000	6.8%	83,000	11.9%	130,000	18.7%	7.5%
Bachelor's degree or higher	5,800,000	187,000	3.2%	233,000	4.0%	420,000	7.2%	24.2%
Sector								
For profit	8,277,000	733,000	8.9%	832,000	10.1%	1,565,000	18.9%	90.1%
Government	1,143,000	53,000	4.6%	64,000	5.6%	117,000	10.2%	6.7%
Nonprofit	654,000	26,000	4.0%	30,000	4.5%	55,000	8.5%	3.2%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares cal-

culated from unrounded values. The total workforce is estimated from the CPS respondents who were Asian (or "other" races), 16 years old or older, employed, but not self-employed, and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

Economic Policy Institute

Characteristics of female U.S. workers of color who would be affected by increasing the federal minimum wage to $15 per hour by July 2024

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Women of color	27,880,000	6,146,000	22.0%	4,203,000	15.1%	10,350,000	37.1%	100.0%
Age								
20 +	26,738,000	5,515,000	20.6%	3,986,000	14.9%	9,501,000	35.5%	91.8%
Under 20	1,143,000	632,000	55.3%	217,000	19.0%	849,000	74.3%	8.2%
16 to 24	4,481,000	1,848,000	41.2%	939,000	21.0%	2,787,000	62.2%	26.9%
25 to 39	10,358,000	2,035,000	19.6%	1,665,000	16.1%	3,700,000	35.7%	35.7%
40 to 54	8,717,000	1,468,000	16.8%	1,105,000	12.7%	2,573,000	29.5%	24.9%
55+	4,324,000	795,000	18.4%	494,000	11.4%	1,290,000	29.8%	12.5%
Race/ethnicity								
Black	9,315,000	2,643,000	28.4%	1,370,000	14.7%	4,013,000	43.1%	38.8%
Hispanic	12,108,000	2,676,000	22.1%	1,973,000	16.3%	4,648,000	38.4%	44.9%
Asian	4,801,000	467,000	9.7%	511,000	10.6%	978,000	20.4%	9.4%
Other race/ ethnicity	1,656,000	362,000	21.8%	349,000	21.1%	711,000	42.9%	6.9%
Family status								
Married parent	6,160,000	1,012,000	16.4%	826,000	13.4%	1,838,000	29.8%	17.8%
Single parent	4,800,000	1,344,000	28.0%	893,000	18.6%	2,237,000	46.6%	21.6%
Married, no children	5,610,000	905,000	16.1%	728,000	13.0%	1,633,000	29.1%	15.8%
Unmarried, no children	11,311,000	2,886,000	25.5%	1,756,000	15.5%	4,642,000	41.0%	44.9%
Family income								
Less than $10,000	1,469,000	630,000	42.9%	269,000	18.3%	899,000	61.2%	8.7%
$10,000 – $14,999	1,344,000	562,000	41.8%	242,000	18.0%	804,000	59.8%	7.8%
$15,000 – $24,999	2,687,000	984,000	36.6%	576,000	21.5%	1,561,000	58.1%	15.1%
$25,000 – $34,999	3,558,000	1,012,000	28.4%	702,000	19.7%	1,714,000	48.2%	16.6%
$35,000 – $49,999	4,291,000	1,036,000	24.2%	700,000	16.3%	1,736,000	40.5%	16.8%
$50,000 – $74,999	5,459,000	910,000	16.7%	844,000	15.5%	1,754,000	32.1%	17.0%

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
$75,000 – $99,999	3,266,000	451,000	13.8%	409,000	12.5%	860,000	26.3%	8.3%
$100,000 – $149,999	3,186,000	334,000	10.5%	293,000	9.2%	627,000	19.7%	6.1%
$150,000 or more	2,621,000	227,000	8.7%	168,000	6.4%	396,000	15.1%	3.8%
Industry								
Construction	228,000	41,000	18.1%	24,000	10.6%	65,000	28.6%	0.6%
Manufacturing	2,004,000	450,000	22.4%	308,000	15.4%	757,000	37.8%	7.3%
Retail trade	3,208,000	1,157,000	36.1%	490,000	15.3%	1,647,000	51.3%	15.9%
Agriculture, forestry, fishing	173,000	35,000	20.4%	36,000	20.7%	71,000	41.1%	0.7%
Wholesale trade	392,000	54,000	13.7%	34,000	8.7%	88,000	22.5%	0.9%
Transportation and utilities	907,000	136,000	15.0%	129,000	14.2%	265,000	29.2%	2.6%
Information	419,000	61,000	14.6%	53,000	12.7%	114,000	27.3%	1.1%
Financial activities	1,835,000	174,000	9.5%	204,000	11.1%	378,000	20.6%	3.6%
Administrative and waste management services	1,313,000	451,000	34.3%	206,000	15.7%	657,000	50.1%	6.4%
Professional, science, management consulting	1,374,000	101,000	7.3%	91,000	6.6%	192,000	13.9%	1.9%
Education	2,997,000	464,000	15.5%	320,000	10.7%	784,000	26.2%	7.6%
Health care	5,583,000	1,070,000	19.2%	720,000	12.9%	1,791,000	32.1%	17.3%
Social assistance	1,135,000	260,000	22.9%	165,000	14.5%	424,000	37.4%	4.1%
Arts, entertainment, recreation, accommodation	970,000	311,000	32.1%	179,000	18.4%	490,000	50.5%	4.7%
Food and drink service	2,462,000	960,000	39.0%	722,000	29.3%	1,681,000	68.3%	16.2%
Public administration	1,432,000	106,000	7.4%	128,000	8.9%	234,000	16.3%	2.3%
Mining	22,000	2,000	7.4%	1,000	4.6%	3,000	12.0%	0.0%
Other industries	1,427,000	315,000	22.1%	394,000	27.6%	709,000	49.7%	6.9%
Occupation								

Group	Total estimated workforce	Directly affected	Share directly affected	Indirectly affected	Share indirectly affected	Total affected	Share of group who are affected	Group's share of total affected
Management	3,225,000	156,000	4.8%	212,000	6.6%	368,000	11.4%	3.6%
Professional	6,381,000	540,000	8.5%	496,000	7.8%	1,036,000	16.2%	10.0%
Service	7,706,000	2,578,000	33.5%	1,879,000	24.4%	4,456,000	57.8%	43.1%
Sales	3,116,000	1,273,000	40.9%	421,000	13.5%	1,694,000	54.4%	16.4%
Office and admin. support	4,887,000	846,000	17.3%	686,000	14.0%	1,531,000	31.3%	14.8%
Farming, forestry, and fisheries	161,000	38,000	23.7%	40,000	24.8%	78,000	48.6%	0.8%
Construction and extraction	104,000	33,000	32.1%	18,000	17.7%	52,000	49.8%	0.5%
Installation, maintenance, and repair	82,000	19,000	22.8%	11,000	14.0%	30,000	36.8%	0.3%
Transportation	820,000	249,000	30.3%	166,000	20.2%	414,000	50.5%	4.0%
Other occupations	1,398,000	414,000	29.6%	275,000	19.7%	690,000	49.3%	6.7%
Work hours								
Part time (< 20 hours)	1,673,000	679,000	40.6%	265,000	15.9%	945,000	56.5%	9.1%
Mid time (20–34 hours)	5,174,000	1,962,000	37.9%	940,000	18.2%	2,902,000	56.1%	28.0%
Full time (35+ hours)	21,033,000	3,505,000	16.7%	2,998,000	14.3%	6,503,000	30.9%	62.8%
Education								
Less than high school	3,461,000	1,496,000	43.2%	644,000	18.6%	2,140,000	61.8%	20.7%
High school	7,273,000	2,144,000	29.5%	1,508,000	20.7%	3,652,000	50.2%	35.3%
Some college, no degree	5,815,000	1,423,000	24.5%	1,056,000	18.2%	2,479,000	42.6%	24.0%
Associate degree	2,921,000	545,000	18.6%	471,000	16.1%	1,015,000	34.8%	9.8%
Bachelor's degree or higher	8,410,000	540,000	6.4%	524,000	6.2%	1,064,000	12.6%	10.3%
Sector								
For profit	21,237,000	5,295,000	24.9%	3,505,000	16.5%	8,800,000	41.4%	85.0%
Government	4,581,000	551,000	12.0%	458,000	10.0%	1,009,000	22.0%	9.8%
Nonprofit	2,062,000	300,000	14.5%	241,000	11.7%	541,000	26.2%	5.2%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled

state minimum wage laws are accounted for in the simulation. Totals may not sum due to rounding. Shares calculated from un-rounded values. The total workforce is estimated from the CPS respondents who were black, Hispanic, Asian, or "other" race; 16 years old or older; employed, but not self-employed; and for whom a valid hourly wage is either reported or can be determined from weekly earnings and usual weekly hours. 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: EPI analysis of Current Population Survey Outgoing Rotation Group microdata, 2016; dollar values adjusted by projections for CPI-U in CBO (2017)

Economic Policy Institute

Appendix B: Technical appendix and methodology

EPI's minimum wage simulation model relies on four quarters of data from the Outgoing Rotation Group of the Current Population Survey (CPS-ORG). The ORG data is first cleaned and imputations made, where necessary, as described in Mishel et al. (2012, Appendix B). EPI's simulation model also pulls data from a compiled dataset of all applicable minimum wage and tipped minimum wage rates for all states, by month and year, from January 1984 onward. Minimum wage rates for states with scheduled state minimum wage increases and/or annual indexing for inflation are projected using CBO projections for inflation, published in the CBO annual Budget and Economic Outlook. See CBO (2017).

We restrict the ORG data to individuals age 16 and older, who are currently employed and for whom valid wage information is either reported or can be calculated from the data, as explained in Mishel et al. (2012, Appendix B).

Sorting the data by state, we first adjust wage values for individuals in states where a state minimum wage increase occurs between the data period and the first proposed increase in the minimum wage proposal being analyzed. (For example, if using 2016 data, the minimum wage in New Jersey rose to $8.44 on January 1, 2017; thus, some individuals in New Jersey with wages below $8.44 will already have higher wages before any proposed federal increase could take place.) In these states, wage values below the state minimum wage expected in the month prior to the proposed new minimum wage are increased in direct proportion to the expected minimum. For example, if someone in New Jersey in August 2016 was earning 105 percent of the August 2016 state minimum, their wage is adjusted to 105 percent of the expected state minimum for June 2017, if the proposed federal increase is modeled to occur in July 2017.

For workers in all states, we assume annual nominal wage growth equal to inflation, as projected in CBO (2017), plus 0.5 percent—a prediction on upon U.S. average annual wage growth since 2014 and current rates of unemployment.

We also assume population growth between the data period and the proposed first increase. We adjust the ORG weights by the projected annual labor force growth rate from 2014 to 2024 for specific racial groups (Bureau of Labor Statistics 2015). According to BLS projections, the white, non-Hispanic labor force will decline by 0.3 percent annually, the black, non-Hispanic labor force will grow by 1.0 percent annually, the Hispanic/Latino labor force will grow by 2.5 percent annually, the Asian labor force will grow by 2.1 percent annually, and the labor force of all other races will grow by 2.0 percent annually. These annual growth rates are adjusted by the number of months that occur between the midpoint of the data and the month that the first proposed minimum-wage increase would occur.

Having made these adjustments, we identify "directly affected" workers as those workers

in states where the prevailing minimum wage (i.e., the higher of the state or the federal minimum wage) is less than the proposed federal minimum, and whose hourly wage is greater than or equal to 80 percent of the prevailing minimum wage but less than the proposed federal minimum wage. We set this lower bound for affected workers at 80 percent of the existing minimum wage to allow for the possibility of measurement error in the CPS hourly wage data. We assume that if workers are reporting hourly wages less than 80 percent of the existing minimum wage, whatever is preventing them from being paid the minimum wage will likely continue to do so if the minimum wage were raised.

We identify "indirectly affected" workers as those workers in states where the prevailing minimum wage is less than the proposed federal minimum, and whose wages are greater than or equal to the proposed federal minimum wage, but less than 115 percent of the proposed federal minimum wage. For example, in a state that uses the federal $7.25 minimum wage, for the increase from $7.25 to $9.25, directly affected workers have a reported hourly wage between $5.80 (80 percent of $7.25) and $9.25. The indirectly affected cutoff in this case would be 1.15 times $9.25, or $10.64. We chose this cutoff point per the findings in Dube, Giuliano, and Leonard (2015), who observe minimum wage spillover or "ripple" effects for workers earning up to 15 percent above newly implemented minimum wages.

Our model also accounts for the proposed changes in the minimum wage for tipped workers—referred to hereafter as the tipped minimum wage. First, we identify tipped workers as workers in customarily tipped occupations, as defined in Allegretto and Cooper (2014 and Appendix Table 2). We identify "directly affected" tipped workers in the same way that we identify directly affected workers overall. Any tipped worker with a reported hourly wage (inclusive of tips) below the proposed minimum wage is directly affected. All other tipped workers with wages above the proposed minimum wage are considered indirectly affected if the proposed tipped minimum wage is above the effective state tipped minimum wage. We do this because the CPS-ORG data do not allow us to identify the base wage paid to these workers, exclusive of tips. Even if a tipped worker is reporting hourly earnings of $16 per hour, we do not know whether they are receiving their state's tipped minimum wage, or something higher, as a base wage before tips. Thus, we consider these workers indirectly affected so that our estimates describe the broadest possible workforce that would be affected by the proposed change in the tipped minimum wage.

Having counted these directly and indirectly affected workers, the program iterates to the next proposed increase.

After each step, if an individual is predicted to be either directly or indirectly affected, her wage is adjusted to reflect her implied raise. For directly affected workers that are not tipped workers, their raise is equal to the difference between the new minimum wage and their existing wage. For indirectly affected workers, their raise is modeled as one-fourth of the difference between their existing wage and the indirectly affected cutoff. For example, an indirectly affected worker previously earning $9.50 would receive a raise of 0.25 x ($10.64-$9.50), or $0.29.

For directly affected tipped workers, their raise is equal to the change in the tipped minimum wage. For indirectly affected tipped workers, their raise is equal to half the change in the tipped minimum wage. This is because it is impossible to determine tipped workers base wage exclusive of tips. Thus, by applying half the increase in the tipped minimum wage, we are essentially assuming that some indirectly affected tipped workers receive more than the tipped minimum wage as a base wage, and some do not.

Again, weights are adjusted to reflect the predicted population growth between the first and second increments in the proposed minimum wage increase. Wage values are again adjusted in states with scheduled minimum wage increases and are adjusted to reflect natural nominal wage growth.

The same method for identifying directly and indirectly affected workers is applied, and the counts are recorded.

The data used for this are the CPS ORG data for calendar year 2016.

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 (2017).

4. Overall productivity is measured as total economy productivity net depreciation. From 1968 to 2016, net productivity grew by 93 percent. Based on projections for productivity growth in CBO (2017), growth from 1968 to 2024 is expected to be 119 percent.

5. Fair Labor Standards Act of 1938.

6. See Gould and Wething (2013) who describe the various shortcomings of the federal poverty line and discuss alternative tools for measuring well-being.

7. See Cooper and Essrow (2015).

8. Dube, Giuliano, and Leonard (2015) observe minimum wage spillover or "ripple" effects up for workers earning 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 the new minimum wage and 115 percent of the new minimum wage. See the methodological appendix for further detail.

9. 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 (forthcoming), 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 of these scenarios, their total annual pay is still likely to be higher than it would have been otherwise due to the higher hourly rate they will receive from the minimum wage increase. The clearly harmful outcome would be instances in which workers truly are unable to find work at all, or if their individual loss of hours outweighs the increased hourly rate of pay, leaving them worse off on net. We believe that this case is a very small fraction of affected workers, and the benefits of higher pay for millions more outweigh the possibility of such negative outcomes. Moreover, policymakers have other tools to try to address such circumstances.

10. The median age of affected workers is 32.

11. Women make up 48.0 percent of the wage-earning workforce, as shown in Appendix Table 2.

12. For a full list of all states that have enacted minimum wages above the federal minimum wage and any scheduled future increases, see EPI's minimum wage tracker (EPI 2017).

13. The change in the tipped minimum wage would have no effect on tipped workers in California because they are already paid the full minimum wage before tips.

14. Idaho and North Carolina have minimum wages equal to the federal $7.25. Arkansas recently passed a minimum wage increase to $8.50 by 2017, 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 minimum wages below the federal minimum wage, workers must be paid at least the federal minimum wage.

15. Author's calculation based on Current Population Survey Outgoing Rotation Group data, 2016.

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" is the practice of employees not being paid the full wages to which they are entitled for the hours they work. See 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 can be paid $0.50 less than the regular minimum wage if workers' combined base wage plus hourly tips equals at least $7.00 more than the regular minimum wage.

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