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The Employment and
Income Effects of Raising
America's Minimum Wage
to \$12 and to \$15 per Hour

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FOREWORD

By eliminating jobs and/or reducing employment growth, economists have long understood that adoption of a higher minimum wage can harm the very poor who are intended to be helped. Nonetheless, a political drumbeat of proposals—including from the White House—now calls for an increase in the \$7.25 minimum wage to levels as high as \$15 per hour.

Such demands assume that the additional income for lower-income households would come from flush firms or wealthy households. But this groundbreaking paper by Douglas Holtz-Eakin, president of the American Action Forum and former director of the Congressional Budget Office, and Ben Gitis, director of labor-market policy at the American Action Forum, comes to a strikingly different conclusion: not only would overall employment growth be lower as a result of a higher minimum wage, but much of the increase in income that would result for those fortunate enough to have jobs would go to relatively higher-income households—not to those households in poverty in whose name the campaign for a higher minimum wage is being waged.

Specifically, using time-tested modeling techniques, such as those that Holtz-Eakin used while at the CBO, the authors found that a \$15-per-hour minimum wage could mean the loss of 6.6 million

jobs. What's more, despite the fact that there would be some Americans whose wages would be lifted by a higher minimum wage, the effect on the poor would be minimal—of the increase in income for low-wage workers, only 6.7 percent would go to families in poverty. In other words, this is reverse-Robin Hoodism: taking jobs and income from the poorest to give to those who are better-off. The wealthy, whom demagogues now attack, would be untouched.

As the minimum-wage debate proceeds, it's important to keep in mind that work itself benefits those of modest means. The first job, even at relatively low pay, provides that first step on the ladder of upward mobility. Eliminating those rungs on the ladder threatens the future of workers who are starting out today. There are far better ways—including the Earned Income Tax Credit, targeted wage supplements, and, of course, a more effective public-education system—to assist low-income Americans and to make work pay, while not reducing job growth. As this paper makes clear, the poor cannot afford counterproductive initiatives advanced in their name but harmful to their lives.

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EXECUTIVE SUMMARY

We examine the employment effects and antipoverty implications of raising the federal minimum wage to \$12 per hour and to \$15 per hour, respectively, by 2020. We focus on how raising the federal minimum wage would affect the very low-wage workers whom the policy is intended to help. Overall, we find significant trade-offs in raising the federal minimum wage.

While a minimum-wage hike would benefit millions of workers with higher earnings, it would also hurt millions of others who would lose earnings because they cannot attain or retain a job. Our estimates show that raising the federal minimum wage to

\$12 per hour by 2020 would affect 38.3 million low-wage workers. Using our central estimate, we find that raising the minimum wage would cost 3.8 million low-wage jobs. In total, income among low-wage workers would rise by, at most, \$14.2 billion, of which only 5.8 percent would go to low-wage workers who are actually in poverty.

Labor-Market Effects of Raising Federal Minimum Wage to \$12 per Hour	
Workers Affected	38.3 million
Jobs Lost	3.8 million
Net Income Change	\$14.2 billion
Percent of Income Gained Going to Workers in Poverty	5.8%

Similarly, we find that increasing the federal minimum wage to \$15 per hour by 2020 would affect 55.1 million workers and cost 6.6 million jobs. Aggregate income among low-wage workers would rise by \$105.4 billion, after accounting for income declines from job losses. However, only 6.7 percent of the increase in income would go to workers who are actually in poverty.

Labor-Market Effects of Raising Federal Minimum Wage to \$15 per Hour	
Workers Affected	55.1 million
Jobs Lost	6.6 million
Net Income Change	\$105.4 billion
Percent of Income Gained Going to Workers in Poverty	6.7%

Because the exact effect of the minimum wage on employment remains unsettled, we check the robustness of our results by employing a range of estimates from the literature that imply modest, moderate, and severe employment consequences. In each case, we analyze how the change in earnings resulting from a minimum-wage increase would be distributed across income levels.

I. INTRODUCTION

In recent years, American policymakers and labor advocates have argued for—and, in many cases, successfully enacted—increases in the minimum wage at federal, state, and local levels. At the federal level, President Obama initially proposed raising the minimum wage to \$9 per hour in his February 2013 State of the Union address and later embraced a proposal in Congress to raise it to \$10.10.

Now, lawmakers are proposing to raise the federal minimum wage to \$12 per hour by 2020, or even to \$15 per hour by 2020—which would more than double the current federal minimum wage of \$7.25 per hour. Several cities, such as Los Angeles, Seattle, and San Francisco, have already approved raising the local minimum wage to \$15 per hour.

In 2014, the Congressional Budget Office (CBO) analyzed the employment and income effects of raising the federal minimum wage to \$9.00 and to \$10.10 per hour.¹ In this paper, we estimate the employment and income effects of increasing the minimum wage to \$12 and to \$15 per hour, focusing on the low-wage workers whom such raises would be intended to assist. In doing so, we project a range of job losses that would occur if lawmakers were to raise the federal minimum wage to \$12 or to \$15 per hour; the net change in total income for all low-wage workers in the United States; and how the net change in earnings for low-wage workers would be distributed across income levels.

II. PREVIOUS RESEARCH

The central policy goal of raising the federal minimum wage is to increase incomes for less affluent Americans. This goal, in turn, raises two questions: How does raising the minimum wage affect the income of low-wage workers? Are those who would be affected by an increase in the minimum wage those who are most in need of assistance?

A higher minimum wage's impact on annual income depends on how it affects employment. For instance, if the minimum wage increased to \$12 per hour, many of those earning \$7.25 per hour today would benefit from a wage increase of at least \$4.75. Other workers who earn below \$12 per hour, however, could lose their jobs and thus see their wage fall to \$0 per hour. Additionally, those who are looking for work might not get hired and would suffer the same fate. To estimate the total net impact of raising the minimum wage on the income of low-wage workers, one must project the total income gained by workers who remain employed, minus total income lost by those who do not attain or retain a job.

To estimate the impact of a \$12 and a \$15 minimum wage on employment and income, we utilize studies by the CBO (2014),² Meer & West (2015),³ and Clemens & Wither (2014),⁴ which provide a range of estimates. These studies examined different labor-market aspects of the minimum wage, resulting in different conclusions regarding the policy's impact on employment and income. Using these three studies, we consider the effects of the minimum wage under modest, moderate, and strongly negative employment scenarios.

CBO

In 2014, the CBO examined the impact of raising the federal minimum wage to \$9.00 or \$10.10 per hour, two of the most popular proposals at the time. For the \$10.10 proposal, the CBO found that the policy would result in employment falling by 500,000 jobs relative to their projected 2016 baseline. The CBO assumed that, in addition to those earning between \$7.25 and \$10.10 getting a raise, those earning just above \$10.10 would also see their wages increase. Specifically, those who earn up to 50 percent more than the minimum-wage hike would see their hourly earnings rise. As a result, people earning below \$11.50 (who stay employed) would benefit from a wage increase of some sort.

The CBO concluded that net earnings for low-wage workers would increase by \$31 billion: 19 percent of those additional earnings would go to families below the poverty threshold; 52 percent to families with incomes one to three times the poverty threshold; and 29 percent to families with incomes more than three times the poverty threshold. We employ these findings when assuming our lower-bound employment consequences of raising the federal minimum wage.

Meer & West

While there is an ongoing debate regarding the impact of the minimum wage on the level of employment, Meer & West suggest that the negative impact of the minimum wage is best isolated by focusing on employment dynamics. Specifically, they find that a 10 percent increase in the real minimum wage is associated with a 0.30 to 0.53 percentage-point decrease in the net job-growth rate.

Previously, the American Action Forum (AAF) applied Meer & West's work to California's recent law that raises the state's minimum wage to \$10 per hour (effective 2016). Using Meer & West's result, the AAF found that this wage increase in California means a loss of 191,000 jobs that will never be created.⁵ In addition, the AAF found that if every state followed suit, more than 2.3 million new jobs would be lost across the United States. We employ the estimates found in Meer & West's study to characterize the most moderate employment consequences of raising the federal minimum wage.

Clemens & Wither

In late 2014, Jeffrey Clemens and Michael Wither of the University of California at San Diego released research examining what happened to low-wage workers the last time that the federal government raised its minimum wage—rising in three steps, during 2007–09, from \$5.15 to \$7.25 per hour. Using data from the Survey of Income and Program Participation (SIPP), they focused on how the minimum-wage hike affected employment and income among

those whom the minimum-wage hike affected most: low-wage workers earning below \$7.50 per hour.

Clemens and Wither found significant, negative consequences for low-wage workers. From 2006 to 2012, employment in this group fell by 8 percent, translating to about 1.7 million jobs.⁶ The job loss in this low-wage group accounted for 14 percent of the national decline in employment during this period.⁷ The minimum-wage hike also increased the probability of working without pay (e.g., unpaid internships) by 2 percentage points. Workers with at least some college education were 20 percent more likely to work without pay than before the minimum wage rose.

As a result of the reduction in employment and paid work, net average monthly incomes for low-wage workers fell by \$100 during the first year after the minimum wage increased and fell by an additional \$50 in the following two years. We use the Clemens & Wither estimates as the upper bound of the employment consequences from raising the federal minimum wage.

III. METHODOLOGY

Of the many minimum-wage proposals espoused, two stand out: the Raise the Wage Act,⁸ which would increase the federal minimum wage to \$12 per hour by 2020; and the Pay Workers a Living Wage Act,⁹ which would increase the federal minimum wage to \$15 per hour by 2020. In this paper, we analyze the labor-market effects of raising the minimum wage to \$12 or to \$15 per hour by 2020.

In estimating the number of workers whom the minimum-wage hike would affect, we use a methodology similar to that employed in the 2014 CBO report. We assume that those who would be most directly affected by the minimum-wage increase are the workers who, we project, would earn between \$7.25 per hour and the new minimum-wage level in 2020 under current law.¹⁰ For the \$12 minimum

wage, this includes all hourly workers who would earn between \$7.25 and \$12 per hour; for the \$15 minimum wage, it includes everyone who would earn between \$7.25 and \$15 per hour. These workers stand to see the largest wage hikes. However, consistent across all minimum-wage studies, this low-wage group would also bear, almost entirely, the job losses. Like the CBO, we assume that all job losses occur only among those who, under current law, would earn between \$7.25 and the new minimum-wage level in 2020.

The CBO anticipated that a minimum-wage hike would also increase earnings for those who earn just above the new minimum-wage level. In particular, the CBO assumed that workers who earn wages up to 50 percent higher than the minimum-wage hike would see their hourly earnings rise. This means that for the \$10.10 option, the CBO projected that workers earning between \$10.10 and \$11.50 per hour would see an increase in hourly earnings. The CBO assumed, however, that the minimum-wage hike would not affect this group's employment.

To identify the number of workers who will earn just above the new minimum-wage level and would still be affected by the minimum-wage hike, we use the same method as the CBO. For the minimum-wage hike to \$12 per hour, we assume that workers earning, under current law, \$12–\$14.40 per hour would see earnings rise to \$14.40 per hour—without any negative employment consequences. For the wage hike to \$15 per hour, we assume that those earning \$15–\$18.90 per hour under current law would get a raise to \$18.90—without losing their jobs. While it is possible that workers in this group could experience a wage increase, it is unlikely that everyone will experience a raise all the way up to \$14.40 or \$18.90 per hour. Our results likely overestimate the income gains resulting from each minimum-wage increase.

Finally, for identifying those who will be affected by the minimum-wage hike and the resulting net effect on annual income, the CBO employed two

approaches. In the first, the CBO used monthly Current Population Survey (CPS) wage and hours data in 2012 to isolate those who would be affected by the hike. In the second approach, the CBO used the 2013 March CPS Annual Social and Economic Supplement, which surveyed a much larger sample of workers and collected detailed information on annual income and earnings data for 2012. In the latter approach, the CBO estimated hourly earnings by dividing total earnings in 2012 by total hours worked. While the first approach (the “wage approach”) has the benefit of directly recording hourly earnings, the second approach (the “annual earnings approach”) is based on a much larger sample of workers and more directly relates to annual income.

We present our estimates using the wage approach and use the regular monthly wage and hour data from the 2014 March CPS Annual Social and Economic Supplement.¹¹ The wage approach results in more positive benefits to raising the minimum wage than the annual earnings approach because it yields lower hourly earnings for each worker. As a result, the wage approach projects a much larger number of workers subject to the effects of raising the minimum wage. Thus, we view our net income figures as upward-bound estimates.

Our estimates using the annual earnings approach can be found in the appendix. In the annual earnings approach, we use the supplemental annual income and earnings information from the same 2014 March CPS supplement.

IV. WORKERS

\$12 Minimum Wage

We estimate that raising the federal minimum wage to \$12 per hour would affect 38.3 million workers. These are the hourly workers who, we project, will earn between \$7.25 and \$14.40 in 2020 under current law (**Figure 1**).

Figure 1. Workers Affected by \$12 Minimum Wage

Wage Range	Workers
\$7.25–\$12.00	25.8 million
\$12.00–\$14.40	12.5 million
Total	38.3 million

We project that, under current law, about 25.8 million hourly workers will earn between \$7.25 and \$12 per hour in 2020. An additional 12.5 million workers will earn between \$12 and \$14.40 per hour. Consequently, we project that a minimum-wage hike to \$12 per hour would affect 38.3 million hourly workers in total.

\$15 Minimum Wage

We project that raising the federal minimum wage to \$15 per hour would affect 55.1 million workers. These are the number of hourly workers who, we project, will earn between \$7.25 and \$18.90 under current law (**Figure 2**).

Figure 2. Workers Affected by \$15 Minimum Wage¹²

Wage Range	Workers
\$7.25–\$15.00	40.6 million
\$15.00–\$18.90	14.6 million
Total	55.1 million

We project that about 40.6 million hourly workers will earn between \$7.25 and \$15 per hour in 2020. An additional 14.6 million will earn between \$15 and \$18.90 per hour. In total, we project that a minimum-wage hike to \$15 per hour will affect 55.1 million hourly workers.

V. EMPLOYMENT

Many like the idea of increasing the minimum wage. The potential employment consequences of

mandating a minimum-wage hike calls the merits of this policy into question, however. When the federal government increases the minimum hourly pay for workers, it effectively increases the per-hour cost of low-wage labor. Employers have three main mechanisms to pay for this additional labor cost: lower profits, higher prices, and fewer workers.

While many minimum-wage advocates hope that employers pay for the additional cost with their own profits, the evidence suggests that the vast majority of low-wage workers are in industries that have razor-thin profit margins, such as retailers and restaurants.¹³ In these industries, businesses tend to pay for minimum-wage hikes by increasing prices, reducing current and future employment, or both. While the exact impact of a minimum-wage hike on employment is debated, extensive literature, from the 1950s to today,¹⁴ concludes that raising the minimum wage damages the labor market.¹⁵ Moreover, the literature shows that the workers who tend to become jobless are the low-skilled, low-wage workers whom the policy intends to help.

The CBO, Meer & West, and Clemens & Wither demonstrate negative labor-market consequences of raising the minimum wage, with varying degrees of severity. In this section, we apply their findings to the proposals to increase the federal minimum wage to \$12 and to \$15 per hour by 2020. As mentioned, we follow the CBO's methodology by assuming that all job losses occur within the group of workers who, under current law, will earn between \$7.25 and the new minimum-wage level in 2020. Specifically, we assume that no one projected to be earning above the new minimum-wage level would suffer employment loss.

To preview our estimates, we find that increasing the minimum wage to \$12 per hour would cost 1.3 million–11.4 million jobs. Raising the minimum wage to \$15 per hour would cost 3.3 million–16.8 million jobs.

\$12 Minimum Wage

Overall, we estimate that low-wage employment would be 1.3 million to 11.4 million lower than un-

der current law if the federal government were to raise the minimum wage to \$12 per hour (**Figure 3**).

Model	Jobs Lost
CBO	1.3 million
Meer & West	3.8 million
Clemens & Wither	11.4 million

Using the CBO report, our lower-bound employment scenario, we find that raising the minimum wage to \$12 per hour by 2020 would cost about 1.3 million jobs nationwide. This means that there would be 1.3 million fewer workers than the 25.8 million workers who, we project, will earn between \$7.25 and \$12 per hour, absent the minimum-wage increase.

In our middle-range negative employment scenario, derived from Meer & West, this minimum-wage increase would reduce the net job-growth rate significantly, costing 3.8 million low-wage jobs. As a result, almost 4 million fewer low-wage jobs would be created than under current law.

The Clemens & Wither estimate indicates severe labor-market consequences. With this model, we estimate that there would be 11.4 million fewer low-wage jobs than under current law. The Clemens & Wither estimate results in such a large decline in employment because they find that the last federal minimum-wage hike actually caused low-wage employment to fall from its initial level, whereas the CBO projected the reduction in employment relative to current law, and Meer & West measured the minimum wage's impact on net job growth.

Under the Clemens & Wither estimate, one finds that low-wage employment in 2020 would be 4.1 million fewer than today's level. When one compares the resulting employment level with what is projected under current law, including jobs created

from economic growth, the minimum wage ends up costing 11.4 million jobs that would be lost or not created.

\$15 Minimum Wage

We estimate that 3.3 million to 16.8 million fewer low-wage jobs would exist in 2020 if policymakers increased the federal minimum wage to \$15 per hour (**Figure 4**).

Model	Jobs Lost
CBO	3.3 million
Meer & West	6.6 million
Clemens & Wither	16.8 million

Using the CBO estimate, we find that increasing the minimum wage to \$15 per hour would cost 3.3 million low-wage jobs. The reduction in job creation captured by the Meer & West estimate reveals that in 2020, the U.S. would have 6.6 million fewer low-wage jobs than under current law. Using the Clemens & Wither estimate leads to 16.8 million fewer low-wage jobs in 2020 than under current law.

VI. INCOME

In this section, we project how increasing the federal minimum wage to \$12 and to \$15 per hour by 2020 would affect total annual income earned by low-wage workers. This involves calculating the total earnings increase for those employed and the total earnings loss for the jobless. After subtracting total income lost from total income gained, we derive the net income change for all low-wage workers.

Methods and Assumptions

For all workers who keep their jobs and will earn between \$7.25 per hour and the new minimum-wage level under current law, we assume that their hourly pay rate would increase to the new minimum-wage level. In the \$12 minimum-wage scenario, for all

hourly workers who, we project, will earn between \$7.25 and \$12 per hour in 2020 under current law, we assume that their wages would rise to \$12 per hour—if they stay employed. For all who will earn between \$12 and \$14.40 per hour in 2020, we assume that their wages would rise to \$14.40.

Likewise, in the \$15 minimum-wage scenario, we assume that all hourly workers who will earn between \$7.25 and \$15 per hour in 2020 under current law would see their wages rise to \$15 per hour—if they stay employed. For all who will earn between \$15 and \$18.90 per hour, we assume that their wages would rise to \$18.90. Under both the \$12 and \$15 minimum-wage scenarios, we assume that the minimum-wage increase itself would have no impact on hours worked per week and weeks worked per year—for those who keep their jobs. Finally, we assume that all who are jobless as a result of the minimum-wage increase would see their individual annual earnings fall to \$0.

\$12 Minimum Wage

The impact of raising the federal minimum wage to \$12 per hour on the income of low-wage workers depends largely on how many become jobless (**Figure 5**).

Figure 5. Net Change in Total Income from \$12 Minimum Wage

Model	\$7.25 to \$12.00	\$7.25 to \$14.40
CBO	\$30.2 billion	\$49.6 billion
Meer & West	-\$5.2 billion	\$14.2 billion
Clemens & Wither	-\$112.5 billion	-\$93.1 billion

Figure 5 illustrates the net income effect for those who, under current law, will earn between \$7.25 and \$12 per hour in 2020 and for everyone who will earn between \$7.25 and \$14.40 per hour. Consider the former (i.e., those directly affected by the law).

In the modest CBO employment scenario, the income gains for those who stay employed outweigh

the income losses for those who lose their jobs. On net, income would increase in this group by \$30.2 billion. However, in the two other employment scenarios, the earnings gained for those who would keep their jobs would be outweighed by the earnings lost by those who would become jobless. As a result, a \$12 minimum wage would cause net income to fall in both these employment scenarios. In the middle-range Meer & West scenario, total income would decline by \$5.2 billion. The income lost in the severe Clemens & Wither scenario would be even worse, as total net income would decline by \$112.5 billion. These results highlight the importance of labor-market policies that do not harm employment.

When one assumes that everyone earning just above the new minimum wage would also get a significant wage bump—and suffer no employment loss—the net income changes become more positive. In the case of a \$12 minimum wage, this means including the income increases for those who, under current law, will earn between \$12 and \$14.40 per hour in 2020. For this group, we assume that workers’ wages rise without any negative employment consequences. In the modest CBO scenario, raising the minimum wage to \$12 per hour would increase income for low-wage workers by \$49.6 billion, in net. In the moderate Meer & West scenario, the minimum-wage increase would slightly increase low-wage income, by \$14.2 billion. However, in the severe Clemens & Wither scenario, raising the minimum wage still has a net negative impact on income for low-wage workers, as their income would fall by \$93.1 billion.

\$15 Minimum Wage

Figure 6 illustrates how raising the minimum wage to \$15 per hour on net would affect total income for low-wage workers.

For the \$15 minimum-wage proposal, we project the impact on net income just for those who, under current law, will earn \$7.25 to \$15 per hour in 2020, as well as for all low-wage workers who will

earn between \$7.25 and \$18.90 per hour. For those who will earn just above \$15 per hour under current law (\$15 to \$18.90 per hour), we assume that their wages would increase without job losses.

Figure 6. Net Change in Total Income from \$15 Minimum Wage

Model	\$7.25 to \$15.00	\$7.25 to \$18.90
CBO	\$118.8 billion	\$171.3 billion
Meer & West	\$52.8 billion	\$105.4 billion
Clemens & Wither	-\$153.2 billion	-\$100.6 billion

Looking first at those who will earn between \$7.25 and \$15 per hour in 2020 under current law, the modest CBO and moderate Meer & West scenarios both yield positive income changes. In the former, increasing the minimum wage to \$15 per hour would, on net, increase total incomes in this group by \$118.8 billion. In the Meer & West scenario, we find that increasing the minimum wage would result in much smaller net income gains. In this case, the minimum-wage hike would increase incomes by \$52.8 billion. In the severe Clemens & Wither scenario, however, the drastic employment losses suggest that raising the minimum wage to \$15 per hour would cause a significant reduction in earnings for low-wage workers. Under this scenario, net earnings would fall by \$153.2 billion for hourly workers who will earn less than \$15 per hour under current law.

As Figure 6 illustrates, including the income increases for those who would earn just above \$15 per hour under current law significantly increases the net income gains under both the CBO and Meer & West scenarios. Yet in the Clemens & Wither scenario, net income for low-wage workers would still decline, by \$100.6 billion.

VII. NET INCOME CHANGES BY INCOME LEVEL

While many hope that raising the minimum wage will greatly assist those in poverty, we find little evi-

dence that raising the federal minimum wage would substantially increase incomes for those with family incomes below the poverty threshold. Specifically, we find that in most of the cases that result in net income gains from a minimum-wage increase, only 10 percent or less would go to workers currently in poverty.

\$12 Minimum Wage

Figure 7 displays our estimates for how raising the federal minimum wage to \$12 per hour would increase (or decrease) earnings for low-wage workers, by income level.

Figure 7. \$12 Minimum Wage's Resulting Net Pay Change, by Income Level¹⁶

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	\$4.0 billion	\$0.8 billion	-\$8.8 billion
1x-3x	\$23.3 billion	\$5.7 billion	-\$47.4 billion
3x-6x	\$16.5 billion	\$5.7 billion	-\$27.2 billion
6x plus	\$5.8 billion	\$1.9 billion	-\$9.7 billion

On net, earnings would increase for low-wage workers at all income levels in the modest CBO and moderate Meer & West employment scenarios and decrease at all income levels in the severe Clemens & Wither scenario. For instance, in the Meer & West scenario, we find that the net income of low-wage workers would increase by \$0.8 billion for those with family incomes below the poverty threshold; by \$5.7 billion for those with incomes one to three times the poverty threshold; by \$5.7 billion for those three to six times the poverty threshold; and by \$1.9 billion for workers with incomes over six times the poverty threshold.

As a result, in the Meer & West scenario, only 5.8 percent of all the income gained from increasing the minimum wage to \$12 per hour would go to families in poverty; 40.5 percent would go to families with incomes one to three times the poverty threshold; 40.1 percent would go to families with incomes

three to six times the poverty threshold; and 13.7 percent would go to families with incomes over six times the poverty threshold. **Figure 8** illustrates percentage distribution of income gained or lost in each employment scenario.

Figure 8. Percentage Distribution of Net Pay Change, by Income Level, from \$12 Minimum Wage¹⁷

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	8.1%	5.8%	9.5%
1x–3x	46.9%	40.5%	50.9%
3x–6x	33.3%	40.1%	29.2%
6x plus	11.7%	13.7%	10.4%

\$15 Minimum Wage

Figure 9 highlights our estimates for how raising the federal minimum wage to \$15 per hour would change net earnings for low-wage workers, by income level.

Figure 9. \$15 Minimum Wage’s Resulting Net Pay Change, by Income Level¹⁸

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	\$11.9 billion	\$7.0 billion	–\$8.4 billion
1x–3x	\$77.2 billion	\$44.9 billion	–\$56.2 billion
3x–6x	\$59.9 billion	\$38.0 billion	–\$30.2 billion
6x plus	\$22.2 billion	\$15.4 billion	–\$5.8 billion

As with raising the minimum wage to \$12 per hour, raising it to \$15 would result in net earnings increasing at all income levels in the CBO and Meer & West employment scenarios and net income decreases in the Clemens & Wither scenario. Using the moderate Meer & West scenario, we find that raising the minimum wage to \$15 per hour would increase the income of low-wage workers by \$7.0 billion for those in poverty; by \$44.9 billion for those with incomes

one to three times the poverty threshold; by \$38.0 billion for those with incomes three to six times the poverty threshold; and by \$15.4 billion for those with incomes over six times the poverty threshold.

As a result, only 6.7 percent of the net income increase from raising the minimum wage to \$15 per hour would go to families in poverty; 42.6 percent would go to families with incomes one to three times the poverty threshold; 36.1 percent would go to families with incomes three to six times the poverty threshold; and 14.7 percent would go to families with incomes over six times the poverty threshold.

As illustrated in **Figure 10**, in every model we run, only a small minority of the income benefits (or costs) from increasing the minimum wage to \$15 per hour would actually go to families in poverty.

Figure 10. Percentage Distribution of Net Pay Change, by Income Level, from \$15 Minimum Wage¹⁹

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	7.0%	6.7%	8.4%
1x–3x	45.1%	42.6%	55.9%
3x–6x	35.0%	36.1%	30.0%
6x plus	13.0%	14.7%	5.8%

VIII. CONCLUSION

Lawmakers continue to debate the merits of a \$12 per hour and a \$15 per hour federal minimum wage. In this paper, we find that any potential benefits from raising the minimum wage would be greatly offset by the negative labor-market consequences of the policy.

For the \$12 federal minimum wage, when assuming moderate negative employment consequences, we find that the policy would cost 3.8 million jobs—at most, it would increase the earnings of low-wage workers by only \$14.2 billion. Further, only a small portion of that income gain would benefit families

in poverty: we find that only 5.8 percent of the increase in pay would go to workers in poverty.

For the \$15 federal minimum wage, when assuming moderate negative employment consequences, we find that the policy would cost 6.6 million jobs. On net, it would raise the earnings of low-wage workers by \$105.4 billion, at most. Again, however, only a small minority of that additional income would benefit families in poverty. In particular, only 6.7 percent of the increase in earnings would go to workers in poverty.

Overall, the income gains from raising the minimum wage would come at a significant cost to the large number of workers who would become jobless. In effect, raising the minimum wage transfers incomes from the low-wage workers who are unfortunate to become jobless to the low-wage workers who remain employed. It accomplishes this without effectively helping those who are most in need.

IX. APPENDIX: ANNUAL EARNINGS APPROACH

\$12 Minimum Wage

With the annual earnings approach, we estimate that raising the federal minimum wage to \$12 per hour would affect 28.9 million workers. These are the hourly workers who, we project, will earn between \$7.25 and \$14.40 in 2020 under current law (Figure 11).

Wage Range	Workers
\$7.25–\$12.00	17.8 million
\$12.00–\$14.40	11.1 million
Total	28.9 million

We estimate that, under current law, about 17.8 million hourly workers will earn between \$7.25 and \$12 per hour in 2020. An additional 11.1 million

will earn between \$12 and \$14.40 per hour. As a result, with the annual earnings approach, we estimate that about 28.9 million workers would be affected by a minimum-wage hike to \$12 per hour.

\$15 Minimum Wage

Using the annual earnings approach, we project that raising the federal minimum wage to \$15 per hour would affect 42.7 million workers. These are the number of hourly workers who, we project, will earn between \$7.25 and \$18.90 under current law (Figure 12).

Wage Range	Workers
\$7.25–\$15.00	30.4 million
\$15.00–\$18.90	12.3 million
Total	42.7 million

We estimate that about 30.4 million workers will earn between \$7.25 and \$15 per hour in 2020. An additional 12.3 million will earn between \$15 and \$18.90. In total, with the annual earnings approach, we estimate that a minimum-wage hike to \$15 per hour will affect about 42.7 million hourly workers.

1. Employment

Under the annual earnings approach, we find that increasing the minimum wage to \$12 per hour would cost 1.4 million to 9.7 million jobs. Raising the minimum wage to \$15 per hour would cost 3.9 million to 13.8 million jobs.

\$12 Minimum Wage

We estimate that low-wage employment would be 1.4 million to 9.7 million lower than under current law if the federal government were to raise the minimum wage to \$12 per hour (Figure 13).

Using the CBO report, we find that raising the minimum wage to \$12 per hour by 2020 would cost

about 1.4 million jobs nationwide. In our middle-range negative employment scenario, derived from Meer & West, this minimum-wage increase would reduce the net job-growth rate significantly, costing 3.8 million low-wage jobs.²⁰ As a result, almost 4 million fewer low-wage jobs would be created than under current law. Finally, with the Clemens & Wither model, we estimate that there would be 9.7 million fewer low-wage jobs than under current law.

Figure 13. Jobs Lost from \$12 Minimum Wage

Model	Jobs Lost
CBO	1.4 million
Meer & West	3.8 million
Clemens & Wither	9.7 million

\$15 Minimum Wage

Under the annual earnings approach, we estimate that 3.9 million to 13.8 million fewer low-wage jobs would exist in 2020 if policymakers increased the federal minimum wage to \$15 per hour (**Figure 14**).

Figure 14. Jobs Lost from \$15 Minimum Wage

Model	Jobs Lost
CBO	3.9 million
Meer & West	6.6 million
Clemens & Wither	13.8 million

Using the CBO estimate, we find that increasing the minimum wage to \$15 per hour would cost 3.9 million low-wage jobs. The reduction in job creation captured by the Meer & West estimate reveals that, in 2020, the nation would have 6.6 million fewer low-wage jobs than under current law. Finally, using the Clemens & Wither estimate leads to 13.8 million fewer low-wage jobs in 2020 than under current law.

2. Income

\$12 Minimum Wage

The impact of raising the federal minimum wage to \$12 per hour on the income of low-wage workers is far less favorable under the annual earnings approach than under the wage approach. **Figure 15** illustrates the net income effects of raising the minimum wage to \$12 per hour, for each employment scenario, under the annual earnings approach.

Figure 15. Net Change in Total Income from \$12 Minimum Wage

Model	\$7.25 to \$12.00	\$7.25 to \$14.40
CBO	\$30.3 billion	\$50.3 billion
Meer & West	-\$16.4 billion	\$3.6 billion
Clemens & Wither	-\$133.3 billion	-\$113.3 billion

In Figure 15, we illustrate the net income effect for those who, under current law, will earn between \$7.25 and \$12 per hour in 2020, as well as for everyone who will earn between \$7.25 and \$14.40 per hour. First, we examine the former (i.e., those directly affected by the law).

In the modest CBO employment scenario, income gains for those who stay employed would outweigh income losses for those who lose their jobs. On net, income would increase in this group by \$30.3 billion. However, in the two other employment scenarios, the earnings gained for those who would keep their jobs would be outweighed by the earnings lost by those who would become jobless. As a result, a \$12 minimum wage would cause net income to fall in both these employment scenarios. In the mid-range Meer & West scenario, total income would decline by \$16.4 billion. The income lost in the severe Clemens & Wither scenario is even worse, as total net income would decline by \$133.3 billion.

When including income increases for those who, under current law, will earn between \$12 and \$14.40 per hour in 2020, the net income changes become more positive. In the modest CBO employment scenario, raising the minimum wage to \$12 per hour would increase income for low-wage workers by \$50.3 billion, in net. In the moderate Meer & West scenario, the minimum-wage increase would increase low-wage income only by \$3.6 billion. In the severe Clemens & Wither scenario, raising the minimum wage still has a net negative impact on income for low-wage workers, as their income would fall by \$113.3 billion.

\$15 Minimum Wage

Figure 16 illustrates how raising the minimum wage to \$15 per hour, on net, would affect total income for low-wage workers. Again, the income outcomes are far less positive under the annual earnings approach than under the wage approach.

Figure 16. Net Change in Total Income from \$15 Minimum Wage		
Model	\$7.25 to \$15.00	\$7.25 to \$18.90
CBO	\$79.4 billion	\$125.5 billion
Meer & West	\$10.5 billion	\$56.5 billion
Clemens & Wither	-\$175.7 billion	-\$129.6 billion

Looking first at those who will earn between \$7.25 and \$15 per hour in 2020 under current law, the modest CBO and moderate Meer & West employment scenarios both yield positive income changes. In the CBO scenario, increasing the minimum wage to \$15 per hour would, on net, increase total incomes in this group by \$79.4 billion. In the Meer & West scenario, the minimum-wage hike would increase incomes by \$10.5 billion. Under the Clemens & Wither scenario, net earnings would fall by \$175.7 billion.

As Figure 16 illustrates, including income increases for those who would earn just above \$15 per hour under current law significantly increases net income gains under both the CBO and Meer & West scenarios. However, in the Clemens & Wither scenario, net income for low-wage workers would still decline, by over \$100 billion.

Income-Change Disparities Between the Wage Approach and Annual earnings Approach

The patterns in the net change in total income earned by low-wage workers are broadly consistent across the wage and annual earnings approaches. However, the magnitudes are substantially different. This is particularly apparent in the Meer & West and Clemens & Wither scenarios.

The disparity stems largely from the fact that the annual earnings approach yields higher hourly pay for each worker than the wage approach. Consequently, the annual earnings approach projects a much smaller number of workers earning at the lower end of the wage distribution. For instance, the annual earnings approach yields far fewer projected hourly workers who, in 2020 under current law, will earn between \$7.25 and \$12 per hour (17.8 million versus 25.8 million) than does the wage approach.

The same is true for the number who will earn between \$7.25 and \$15 (30.4 million versus 40.6 million). In addition, the annual earnings approach results in estimating slightly fewer workers who will earn between \$12 and \$14.40 (11.1 million versus 12.5 million) and slightly fewer earning between \$15 and \$18.90 (12.3 million versus 14.6 million).

These differences are important because they influence our estimates of the net income effects of the minimum-wage hikes. When using the annual earnings approach, the large job losses that occur in the Meer & West and Clemens & Wither scenarios leave

fewer workers who would keep their jobs and experience an increase in earnings. As a result, the net income gains tend to be smaller or more negative when using the annual earnings approach than when using the wage approach.

3. Net Income Changes by Income Level

\$12 Minimum Wage

Figure 17 displays our estimates for how raising the federal minimum wage to \$12 per hour would increase (or decrease) income for low-wage workers, by income level.

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	\$6.4 billion	\$1.2 billion	-\$11.9 billion
1x-3x	\$25.8 billion	\$0.5 billion	-\$62.8 billion
3x-6x	\$14.4 billion	\$1.0 billion	-\$32.7 billion
6x plus	\$3.6 billion	\$0.9 billion	-\$5.9 billion

On net, earnings would increase for low-wage workers at all income levels in the modest CBO and moderate Meer & West employment scenarios and decrease at all income levels in the severe Clemens & Wither scenario. For instance, using the annual earnings approach in the moderate Meer & West scenario, we find that the net incomes of low-wage workers would increase by a total of \$1.2 billion for those with incomes below the poverty threshold; by \$0.5 billion for those with incomes one to three times the poverty threshold; by \$1.0 billion for those three to six times the poverty threshold; and by \$0.9 billion for workers with incomes over six times the poverty threshold.

As a result, in the Meer & West scenario, 33.8 percent of all income gained from increasing the minimum wage to \$12 per hour would go to families in

poverty; 14.2 percent would go to families with incomes one to three times the poverty threshold; 27.2 percent would go to families with incomes three to six times the poverty threshold; and 24.9 percent would go to families with incomes over six times the poverty threshold (**Figure 18**).

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	12.8%	33.8%	10.5%
1x-3x	51.3%	14.2%	55.4%
3x-6x	28.7%	27.2%	28.9%
6x plus	7.2%	24.9%	5.2%

When evaluating the impact of raising the minimum wage to \$12 per hour, raising the minimum wage appears to more efficiently target the population for combating poverty when we use the annual earnings approach. This occurs because the estimated overall net income gains when using this approach are much smaller than when using the wage approach. Again, the differences between the wage approach and the annual earnings approach stem from the fact that they yield different low-wage-worker population sizes.

\$15 Minimum Wage

Figure 19 highlights our estimates for how raising the federal minimum wage to \$15 per hour would change net earnings for low-wage workers, by income level.

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	\$12.3 billion	\$6.8 billion	-\$8.1 billion
1x-3x	\$62.9 billion	\$26.9 billion	-\$70.6 billion
3x-6x	\$40.9 billion	\$18.6 billion	-\$41.4 billion
6x plus	\$9.4 billion	\$4.3 billion	-\$9.4 billion

Similar to raising the minimum wage to \$12 per hour, raising it to \$15 would result in net earnings increasing at all income levels in the CBO and Meer & West employment scenarios and net income decreasing in the Clemens & Wither scenario. Using the annual earnings approach for the moderate Meer & West scenario, we find that raising the minimum wage to \$15 per hour would increase the incomes of low-wage workers by \$6.8 billion for those in poverty; by \$26.9 billion for those with incomes one to three times the poverty threshold; by \$18.6 billion for those with incomes three to six times the poverty threshold; and by \$4.3 billion for those with incomes over six times the poverty threshold.

As a result, only 12.0 percent of the net income increase from raising the minimum wage to \$15 per hour would go to families in poverty; 47.5 percent would go to families with incomes one to three times the poverty threshold; 32.9 percent would go to families with incomes three to six times the poverty threshold; and 7.6 percent would go to families with incomes over six times the poverty threshold.

As illustrated in **Figure 20**, in every model we run, only a small minority of the income benefits (or costs) from increasing the minimum wage to \$15 per hour would actually go to families in poverty. As is the case for the \$12 minimum wage, raising the minimum wage to \$15 per hour appears most efficient when we use the annual earnings approach. However, as in the \$12 minimum-wage case, this is driven by an annual earnings approach projecting much smaller overall income gains if the minimum wage were to increase to \$15 per hour.

Figure 20. Percentage Distribution of Net Pay Change, by Income Level, from \$15 Minimum Wage²⁴

Poverty Level	CBO	Meer & West	Clemens & Wither
1x	9.8%	12.0%	6.3%
1x-3x	50.2%	47.5%	54.5%
3x-6x	32.6%	32.9%	32.0%
6x plus	7.5%	7.6%	7.3%

ENDNOTES

1. Congressional Budget Office, "The Effects of a Minimum-Wage Increase on Employment and Family Income," February 2014, <https://www.cbo.gov/publication/44995>.
2. Ibid.
3. Jonathan Meer and Jeremy West, "Effects of the Minimum Wage on Employment Dynamics," January 2015, http://econweb.tamu.edu/jmeer/Meer_West_Minimum_Wage.pdf.
4. Jeffrey Clemens and Michael Wither, "The Minimum Wage and the Great Recession: Evidence of Effects on the Employment and Income Trajectories of Low-Skilled Workers," National Bureau of Economic Research, December 2014, <http://www.nber.org/papers/w20724>.
5. Ben Gitis, "The Steep Cost of a \$10 Minimum Wage," American Action Forum, October 2013, <http://americanactionforum.org/research/the-steep-cost-of-a-10-minimum-wage>.
6. The 1.7 million jobs figure is based on authors' analysis of Clemens & Wither (2014) estimates.
7. Clemens & Wither (2014) accounted for the effects of the recession by using state, time, and individual effects and controlling for the Federal Housing Finance Agency (FHFA) House Price Index. For more information on their methodology, see <http://www.nber.org/papers/w20724>.
8. See <https://www.congress.gov/bill/114th-congress/house-bill/2150>.
9. See <http://www.sanders.senate.gov/download/pay-workers-a-living-wage-act?inline=file>.
10. The CBO's baseline projection has low-wage-worker hourly earnings rising at an average annual rate of 2.9 percent from 2013 to 2016. We assume the same and project wages to increase by 2.9 percent each year until 2020.
11. Current Population Survey, 2014 Annual Social and Economic Supplement, retrieved from the National Bureau of Economic Research, <http://www.nber.org/data/current-population-survey-data.html>.
12. Numbers may not add to total due to rounding.
13. See <http://americanactionforum.org/research/the-cost-of-januarys-minimum-wage-hikes>.
14. See <http://americanactionforum.org/insights/what-the-weight-of-minimum-wage-research-shows>.
15. See <http://www.nber.org/papers/w12663>.
16. Figures may not add to total reported in Figure 5 due to rounding.
17. Red indicates distribution of income lost.
18. Figures may not add to totals reported in Figure 6 due to rounding.
19. Red indicates distribution of lost income.
20. Just as in the other two estimates, we assume that all job losses occur in the low-wage group. Since Meer & West report how increasing the minimum wage affects the net job-growth rate for all workers (not only low-wage ones), the projected job losses do not differ between the wage approach and annual earnings approach. While the number of low-wage workers changes from each approach, the total number of workers does not. As a result, the projected job losses do not change between the two estimation approaches, even though the population size of low-wage workers differs.
21. Figures may not add to totals reported in Figure 15 due to rounding.
22. Red indicates distribution of income lost.
23. Figures may not add to totals reported in Figure 16 due to rounding.
24. Red indicates distribution of income lost.