



Economic Effects of Enacting the Raise the Wage Act on Small Businesses and the U.S. Economy

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Executive Summary

Lawmakers recently introduced the Raise the Wage Act which, if enacted, would increase the federal minimum wage in stages from \$7.25 per hour to \$15.00 per hour over a six-year period spanning 2019 to 2024. In subsequent years, the federal minimum wage would be subject to possible further increases depending upon the rate of wage inflation. The proposed legislation would also increase, and effectively eliminate, the federal tipped wage by raising it from its current level of \$2.13 per hour to a level eventually equal to the minimum wage. This report analyzes the potential economic impact of enacting the Raise the Wage Act and imposing these mandated wage increases upon employers. Using the Business Size Insight Module (BSIM), a dynamic, multi-region model based on the widely-used Regional Economic Models, Inc. (REMI) structural economic forecasting and policy analysis model, we estimate that during the period spanning 2019 and 2029, the Raise the Wage Act would reduce private sector employment by over 1.6 million jobs and produce a cumulative U.S. real output loss of more than \$2 trillion.

Introduction

Employers in all fifty states are required to offer workers a minimum wage in exchange for their labor. The Fair Labor Standards Act (FLSA) of 1938 which, as amended, establishes a basic minimum wage that must be paid to covered workers. States are permitted to establish their own minimum wages which have the potential to replace the federal rate as the effective minimum wage, provided that the state minimum wage established exceeds the federal rate. The federal minimum wage is currently \$7.25 per hour for all covered employees (**Table 1**).

Table 1: Historical Effective Minimum Wage Rates for U.S. Non-farm Employment

Year	Minimum Wage	Year	Minimum Wage
1975	\$2.10 (per hour)	Sept. 1997	\$5.15
1976	\$2.30	1998	\$5.15
1977	\$2.30	1999	\$5.15
1978	\$2.65	2000	\$5.15
1979	\$2.90	2001	\$5.15
1980	\$3.10	2002	\$5.15
1981	\$3.35	2003	\$5.15
1982	\$3.35	2004	\$5.15
1983	\$3.35	2005	\$5.15
1984	\$3.35	2006	\$5.15
1985	\$3.35	July 2007	\$5.85
1986	\$3.35	July 2008	\$6.55
1987	\$3.35	July 2009	\$7.25
1988	\$3.35	2010	\$7.25
1989	\$3.35	2011	\$7.25
Apr. 1990	\$3.80	2012	\$7.25
Apr. 1991	\$4.25	2013	\$7.25
1992	\$4.25	2014	\$7.25
1993	\$4.25	2015	\$7.25
1994	\$4.25	2016	\$7.25
1995	\$4.25	2017	\$7.25
Oct. 1996	\$4.75	2018	\$7.25

Source: Department of Labor

Some lawmakers have sought to raise the federal minimum wage for several years now. President Obama favored raising the federal minimum wage to \$9.50 per hour by 2011 during his 2008 campaign for the presidency. Years later during his 2012 State of the Union speech, he broached the idea of raising the minimum wage to a lower rate of \$9.00 per hour sometime during his second term. In 2013, the president supported legislation introduced by Senator Harkin (D-Iowa) and Representative George Miller (D-Calif.) that would have raised the minimum wage to \$10.10 per hour.¹ More recently, former presidential candidate Bernie Sanders advocated for a

¹ The Minimum Wage Fairness Act of the 113th Congress or S. 1737.

\$15.00 per hour minimum wage during his primary campaign for the Democratic nomination, a position which likely motivated the introduction of H.R. 1364 in the 115th Congress, which would have increased the federal minimum wage from its current level to \$15.00 per hour in stages over a four-year period, after which the minimum wage would have increased on an annual basis dependent upon annual percentage increases in the median hourly wage of all employees. Former Democratic presidential nominee Hillary Clinton supports an increase in the federal minimum wage to \$12.00 per hour.

The most recent effort by lawmakers to increase the federal minimum wage is the Raise the Wage Act of 2019 (the “Act”). Introduced in the House by Representative Bobby Scott (VA-03) on January 16th, the Act would increase the federal minimum wage to \$15.00 per hour over a six-year period beginning in 2019, when the federal minimum wage would increase by \$1.30 from \$7.25 per hour to \$8.55 per hour. The precise timing of the wage increase during the calendar year depends on the Act’s date of enactment. The increase would occur on the first day of the third month that begins after the date of the Act’s enactment, a date referred to as the “effective date.” In subsequent years, the federal minimum wage would increase to \$9.85 per hour in 2020, \$11.15 per hour in 2021, \$12.45 per hour in 2022, \$13.75 per hour in 2023, and \$15.00 per hour in 2024. Beginning in 2025 (and continuing in years thereafter), the federal minimum wage would be indexed to the median hourly wage of all employees and therefore subject to possible increases contingent upon increases in the median hourly wage. Wage increases in any particular year would occur on the effective date of that year.

The Act also makes adjustments to the minimum cash wages paid by employers to tipped employees. Pursuant to the Act, the federal tipped wage would increase from \$2.13 per hour to \$3.60 per hour in 2019. For each succeeding year, the tipped wage would increase by the lesser of either \$1.50 per hour or the difference between the tipped wage and the federal minimum wage. Once the tipped wage reaches the level of the federal minimum wage in 2027, the tipped wage would be eliminated, and all employees would earn at least the federal minimum wage.

This report quantifies the economic impact of implementing the Raise the Wage Act of 2019 on U.S. small businesses and their employees using the Business Size Insight Module (BSIM). The BSIM is a dynamic, multi-region model based on the Regional Economic Models, Inc. (REMI) structural economic forecasting and policy analysis model which integrates input-output, computable general equilibrium, econometric, and economic geography methodologies. The underlying mechanics of the REMI model are based on decades of peer-reviewed literature.² The model is used by numerous clients in both the private and public sectors.³ The BSIM is a customized version of the REMI model that has the unique ability to forecast the economic impact

² A list of the peer-reviewed literature is contained in “PI+ v2.2 Model Equations,” downloadable at http://www.remi.com/wp-content/uploads/2018/06/Model-Equations-v2_2.pdf. The list of references includes articles published in the American Economic Review and The Review of Economics and Statistics.

³ The REMI model is used by a diverse group of clients spanning academia, private consulting firms, local and regional governments, and nonprofits, to name a few categories. A list of clients that use the REMI model is available at <http://www.remi.com/clients>. The list has included consultancies like Boston Consulting Group and Ernst and Young, educational institutions like the Massachusetts Institute of Technology, nonprofit institutions like AARP and the Urban Institute, and federal, regional, and local government agencies.

of public policy and proposed legislation on different categories of U.S. businesses differentiated by employee-size-of-firm. Among the variables forecast by the BSIM are private sector employment, measures of production, and personal income. By comparing simulation results for proposed scenarios with the model's baseline forecast, the BSIM is able to obtain estimates of how these policy changes would impact employer firms of varying sizes and their employees.

Assumed Structure of the Federal Minimum Wage Increase to \$15.00 per Hour and Description of New Employer Costs

According to the Bureau of Labor Statistics, 542,000 workers earned exactly the federal minimum wage of \$7.25 per hour in 2017, while about 1.3 million workers had wages below the federal minimum. Together, these 1.8 million workers with wages at or below the federal minimum make up 2.3 percent of the 80.4 million U.S. workers paid hourly rates.⁴ Raising the minimum wage to \$15.00 per hour from its current level would increase the cost of labor of this large pool of workers by approximately 107 percent.

To analyze the economic impact an increase in the federal minimum wage to \$15.00 per hour would have on the U.S. economy, we used the proposed wage schedules provided in the Raise the Wage Act of 2019. The Act would increase the federal minimum wage to \$15.00 per hour over a six-year period beginning in 2019, when the federal minimum wage would increase by \$1.30 from \$7.25 per hour to \$8.55 per hour. In subsequent years, the federal minimum wage would increase to \$9.85 per hour in 2020, \$11.15 per hour in 2021, \$12.45 per hour in 2022, \$13.75 per hour in 2023, and \$15.00 per hour in 2024, after which the minimum wage would be indexed to wage inflation as measured by changes in the hourly median wage of all employees. All wage increases would occur on a particular day of the calendar year referred to as the “effective date” which we assume to be July 1st. Also, the federal tipped wage would increase under the Act, rising from \$2.13 per hour to \$3.60 per hour in 2019 and, for each succeeding year, increasing by the lesser of either \$1.50 per hour or the difference between the tipped wage and the federal minimum wage. Once the tipped wage reaches the level of the federal minimum wage at some future date,⁵ the tipped wage would be eliminated, and all employees would earn at least the federal minimum wage.

Eventually, the federal minimum wage would surpass or equal all existing state minimum wages by the end of our forecast window, resulting in increased wage costs for employers in virtually all states. However, in the short-to-medium term, the state minimum wage for a number of states would continue to exceed the federal minimum wage even assuming the wage schedule described above. In years where the state minimum wage exceeds the federal minimum wage, for

⁴ “Characteristics of minimum wage workers, 2017,” Report 1072, U.S. Bureau of Labor Statistics, March 2018.

⁵ The precise year in which the tipped minimum wage reaches a level equal to the minimum wage depends on adjustments to the minimum wage in years 2025 and beyond to account for wage inflation. If no such adjustments are made, the tipped wage will equal the minimum wage in 2027. However, if such adjustments are made to the minimum wage, the tipped wage will not equal the minimum wage until a later year. In our analysis, we assume that the minimum wage increases by 2.4 percent in years 2025 and beyond, a circumstance that leads to the tipped wage not equaling the minimum wage until 2029.

those states to which this applies, new employer costs are assumed to be zero, as there is no change from the baseline scenario (*i.e.*, the preexisting state minimum wage continues to establish the wage floor). For illustrative purposes, the assumed federal minimum wage schedule and effective minimum wage schedules for two states, one of which experiences new employer costs for the entirety of the ten-year forecast window and the other which experiences new employer costs for just part of the forecast window, are provided in **Table 2**.

Table 2: New Hourly Costs Associated with Minimum Wage Workers Under the Raise the Wage Act, Alabama and Washington

	Assumed Federal Minimum Wage Schedule ⁶	Alabama			Washington		
		Status Quo Effective Minimum Wage Schedule	Assumed Effective Minimum Wage Schedule	New Hourly Employer Cost per Minimum Wage Worker	Status Quo Effective Minimum Wage Schedule	Assumed Effective Minimum Wage Schedule	New Hourly Employer Cost per Minimum Wage Worker
2019	\$7.90	\$7.25	\$7.90	\$0.65	\$12.00	\$12.00	\$0.00
2020	\$9.20	\$7.25	\$9.20	\$1.95	\$13.50	\$13.50	\$0.00
2021	\$10.50	\$7.25	\$10.50	\$3.25	\$13.72	\$13.72	\$0.00
2022	\$11.80	\$7.25	\$11.80	\$4.55	\$13.95	\$13.95	\$0.00
2023	\$13.10	\$7.25	\$13.10	\$5.85	\$14.18	\$14.18	\$0.00
2024	\$14.38	\$7.25	\$14.38	\$7.13	\$14.42	\$14.71	\$0.29
2025	\$15.18	\$7.25	\$15.18	\$7.93	\$14.66	\$15.18	\$0.52
2026	\$15.54	\$7.25	\$15.54	\$8.29	\$14.90	\$15.54	\$0.64
2027	\$15.92	\$7.25	\$15.92	\$8.67	\$15.15	\$15.92	\$0.77
2028	\$16.30	\$7.25	\$16.30	\$9.05	\$15.40	\$16.30	\$0.90

Concerning what happens to the federal minimum wage in 2025 and beyond, as mentioned earlier, under the Act the minimum wage would increase annually based on increases in the median hourly wage paid to all employees. Creating a wage schedule for years beyond 2024 requires an assumption regarding the annual increase in median hourly wages as measured by BLS. For this analysis, the assumed annual rate of increase was set equal to the annualized rate of increase in the hourly median wage for years 2001 to 2017, a time period that includes at least one full business cycle and over which the hourly median wage increased year-over-year every single year. The annualized rate of increase over this time period is 2.4 percent (**Figure 1**).⁷

⁶ Since the effective date is assumed to be July 1st, the effective minimum wage in each year during the staggered increase to \$15.00 per hour is an average of two values. For example, in 2019 the effective minimum wage is the average of \$7.25 per hour (which is in effect from January 1st through June 30th) and \$8.55 per hour (which is in effect from July 1st through December 31st). The minimum wage is assumed to increase annually in years 2025 and beyond by 2.4 percent, the annualized increase in the hourly median wage for all employees since 2001.

⁷ According to the U.S. Department of Labor (DOL), tipped employees are employees who “customarily and regularly receive more than \$30 per month in tips.” Employers may use tips received by such employees as a credit towards their minimum wage obligations to the employees, provided that a minimum cash wage, currently set to \$2.13 per hour at the federal level, is also paid to the employees. States have the option of establishing their own

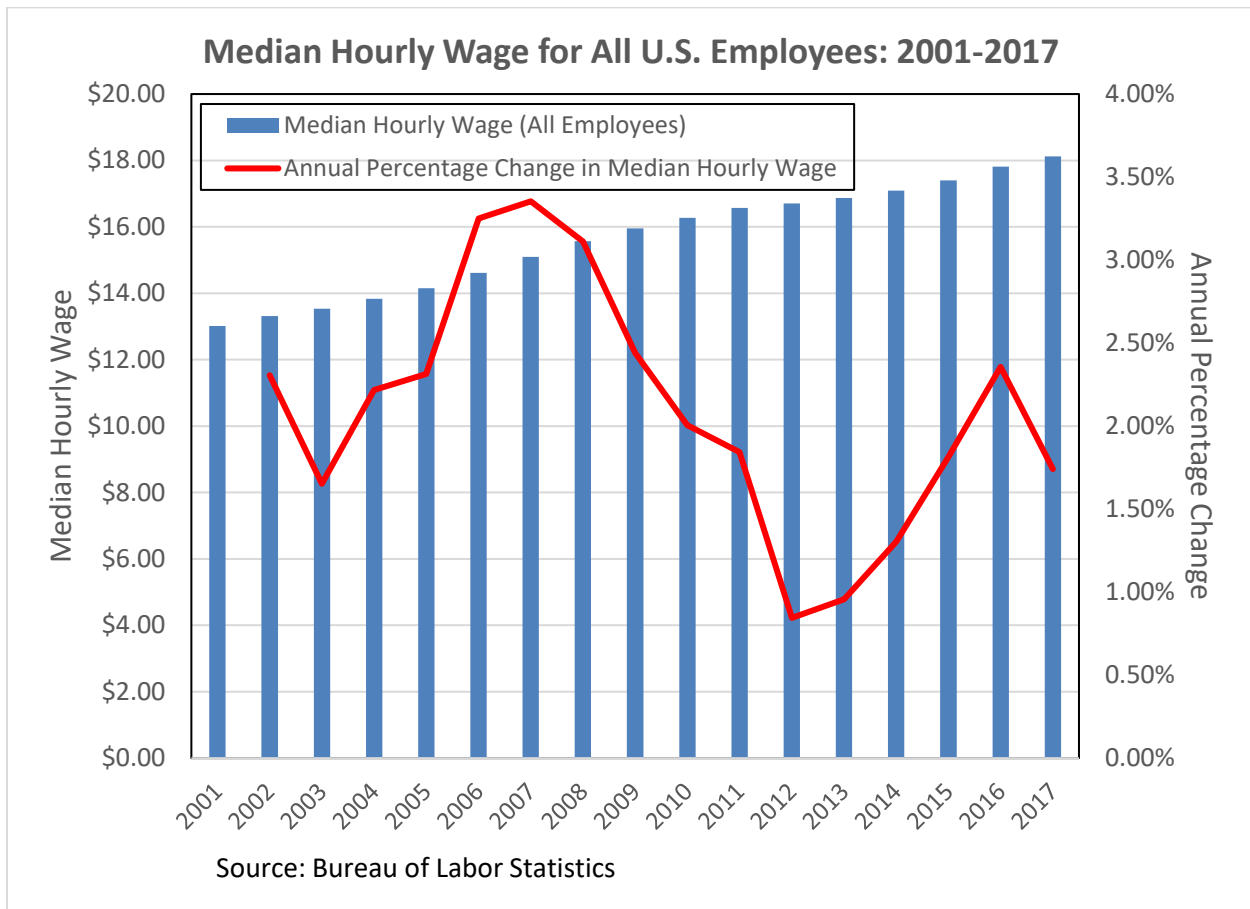


Figure 1

Modeling the wage increases for “tipped” employees mandated by the Act involves the same approach used for modeling wage increases for minimum wage employees: calculating the difference between the status quo wage schedules and the Act’s proposed wage schedule for these employees. The Act mandates a wage schedule for tipped employees that would eventually result in tipped employees earning the full minimum wage. In the year the Act is enacted, employers would be required to pay tipped employees \$3.60 per hour. In subsequent years, the per-hour wage of tipped employees would increase by the lesser of \$1.50 or the amount necessary for the wages of tipped employees to equal the full minimum wage. Again, for modeling purposes we are interested in the wage differential between what tipped workers would earn under the Act’s wage schedule and the status quo wage schedule. For illustrative purposes, the calculated wage differentials for tipped workers in New Jersey are provided in **Table 3**.

cash wage. According to the Bureau of Labor Statistics, there are approximately 1.3 million U.S. workers who earn below the minimum wage. Calculations of the historical annual increase in the median hourly wage for all workers utilized data from the Occupational Employment Statistics data series from the Bureau of Labor Statistics, available at http://www.bls.gov/oes/current/oes_nat.htm.

Table 3: New Hourly Costs Associated with Tipped Employees in New Jersey with a \$15.00 per Hour Minimum Wage

	Status Quo Tipped Wage Schedule	Assumed Tipped Wage Schedule	New Hourly Cost per Tipped Employee
2019	\$2.13	\$2.87	\$0.74
2020	\$2.13	\$4.35	\$2.22
2021	\$2.13	\$5.85	\$3.72
2022	\$2.13	\$7.35	\$5.22
2023	\$2.13	\$8.85	\$6.72
2024	\$2.13	\$10.35	\$8.22
2025	\$2.13	\$11.85	\$9.72
2026	\$2.13	\$13.35	\$11.22
2027	\$2.13	\$14.85	\$12.72
2028	\$2.13	\$16.05	\$13.92
2029	\$2.13	\$16.69	\$14.56

Source: Department of Labor and Authors' Calculations

Beyond the proposed mandated wage schedules, certain other factors ought to be taken into account in an analysis of a minimum wage increase. One such factor is business size exemptions. Some states exempt businesses of a certain size from minimum wage requirements. The state of Illinois, for example, exempts employer firms with three or fewer employees from minimum wage laws. Very few states have such exemptions, however, and for simplicity, we discard any such business size exemptions with the assumption that a major overhaul of the federal minimum wage would seek to raise wages for all minimum wage workers, regardless of the size of their employers.

Another factor involves “emulation effects” (also referred to as “ripple” or “spillover” effects) associated with individuals earning near (just above) the current minimum wage. Some of these individuals will earn between \$7.25 per hour and the higher wages mandated in subsequent years (beginning with \$9.00 per hour in 2017). In the absence of employer action, these workers would see their wages raised automatically to the new levels. However, wages for these workers may increase to even higher levels if employers attempt to maintain the pre-implementation wage distribution. Failure to increase the wages of near-minimum-wage earners sufficiently and allowing wage compression to occur may result in workers expressing their dissatisfaction by reducing work effort or leaving. Research suggests that “relative wages are important to workers,” and “firms may find it in their profit-maximizing interest to increase [near-minimum-wage] workers’ wages when minimum wages increase, in an attempt to restore work effort.”⁸ Based upon state-level data from the Bureau of Labor Statistics, it was assumed that 15 percent⁹ of U.S.

⁸ Grossman, Jean Baldwin, “The Impact of the Minimum Wage on Other Wages,” *The Journal of Human Resources*, Vol. 18, No. 3 (Summer 1983). See also: Dube, Arindrajit et al., “Fairness and Frictions: The Impact of Unequal Raises on Quit Behavior,” IZA Discussion Paper No. 9149, June 2015; Autor, David H. et al., “The Contribution of the Minimum Wage to US Wage Inequality over Three Decades: A Reassessment,” *American Economic Journal: Applied Economics*, 8(1): 58-99, 2016.

⁹ According to the Bureau of Labor Statistics, U.S. wage earners at the 10th percentile earn \$9.60 per hour, while those at the 25th percentile earned \$11.91 per hour. Emulation effects can be assumed to occur among workers who earn near (within a few dollars of) the minimum wage. Workers at the 15th percentile will earn above the proposed

private sector employees less those individuals earning at or below the minimum wage would also see per capita raises equal to the dollar amount in wage increases experienced by workers earning at the minimum wage in years 2017 and beyond.¹⁰

Also, besides the direct cost of higher wages in an increased minimum wage scenario, there are significant additional employer costs in the form of additional payroll taxes that must be paid on wage differentials. In general, an employer's share of payroll taxes equals 7.65 percent of employee wages and salary. Of this 7.65 percent, 6.2 percentage points are intended to help fund old age, survivors, and disability insurance, and 1.45 percentage points go toward helping to pay for Medicare hospital insurance. Employers can expect to pay more in payroll taxes as a consequence of a minimum wage increase.

No Changes to Government Demand

Given that a mandated minimum wage has been in effect for decades, it is assumed that government mechanisms to monitor compliance with the statute are established and well-developed. An increase in the minimum wage therefore should not require the development of new government mechanisms or materially increase government administrative costs. Hence, the analysis assumes no projected increases in government demand resulting from the implementation of the proposed minimum wage increase.

Additional Private Spending in the Economy

Consumers in an economy have two choices of what to do with their after-tax income. They can either choose to spend it, thereby increasing consumption within the economy, or they can elect to save it, and in doing so potentially increase investment in the economy. Government stimulus programs frequently focus on transferring wealth to lower-earning individuals because of the strong likelihood that these individuals will elect to spend the additional wealth, producing a consumption-fueled boost to the economy.¹¹ Consistent with expectations pertaining to increases

wage level of \$8.55 in 2019 and will also earn below the proposed "final" wage level of \$15.00 per hour. These workers would eventually and automatically see their wages increase to the new minimum wage of \$15.00 by 2024 if the wage schedule outlined in the Raise the Wage Act was implemented, all else unchanged, but a reasonable scenario is that these workers will press for the restoration of the original wage structure (such that these workers would earn more than the minimum wage). It is assumed that emulation effects do not occur for workers earning above the 15th percentile.

To give an example, in the state of Alabama, it was assumed that all workers earning at or below the 15th percentile would see their earning increase by \$1.50 per hour on July 1st, 2019 if the act the new wage schedule is implemented, by an additional \$1.50 per hour on July 1st, 2018, and so on and so forth (the difference between the anticipated minimum wage if the hypothetical wage schedule was implemented and the anticipated minimum wage under current law). In this analysis, emulation effects were calculated on a state by state basis for all fifty states.

¹⁰ The assumption that wage changes due to emulation effects occur simultaneously with the minimum wage increase is supported by research suggesting that "any substantial emulation effects are not long delayed, which seems plausible because increases in the minimum are [typically] well-advertised in advance." See Gramlich, Edward M., "Impact of Minimum Wages on Other Wages, Employment, and Family Incomes," *Brookings Papers on Economic Activity*, The Brookings Institution, 1974.

¹¹ According to the Congressional Budget Office, "increases in disposable income are likely to boost purchases more for lower-income than for higher-income households. That difference arises, at least in part, because a larger share

in income for low-income workers, this analysis assumes that new additional income received by minimum wage earners is spent (and not saved), leading to an increase in consumption.

In the analysis, the conversion of higher labor costs for employers into increased consumption by workers receiving wage increases occurs automatically due to the way in which wage costs are inputted into the BSIM. Since employer costs described in this analysis derive from an increase in the minimum wage, the costs were inputted into the BSIM under the “Wage Labor Cost” variable. The costs were distributed across different industry categories and different employee-size-of-business categories according to existing industry and business size distributions published in the Census Bureau’s Statistics on U.S. Businesses dataset. This distribution allows the BSIM to generate results for separate employee-size-of-firm categories.

Increases in the “Wage Labor Cost” variable in the BSIM translate directly to increases in the “Compensation Rate” policy variable which is used in intermediate calculations during the simulation process. During simulations, such compensation rate increases are directly “fed back” into the economy in the form of higher consumer spending on the part of workers who now have extra money to spend. Concerns that minimum wage increases may provide a countervailing spending “stimulus” effect to the economy are therefore satisfied automatically in this analysis.¹²

of people in lower-income households cannot borrow as much money as they would wish in order to spend more than they do currently.” See: “The Economic Outlook and Fiscal Policy Choices: Statement of Douglas W. Elmendorf, before the Committee on the Budget, United States Senate,” Congressional Budget Office, September 28, 2010, p. 36.

¹² The fact that the BSIM automatically accounts for an increase in consumer spending as a consequence of an increase in the “Wage Labor Cost” variable is an important point that should not be missed. That increased consumption is automatically accounted for by the model in an analysis of a minimum wage increase means that exogenous increases in private sector demand are unnecessary for a model to be complete. Including such exogenous increases makes the resulting forecasts conservative.

Simulation Results

BSIM simulation results for the modeled scenario in which the Raise the Wage Act becomes law with an effective date of July 1st are provided below. All employment figures are expressed as number of employees, while production figures are expressed as billions of 2015 dollars. Under the modeled assumptions:

- There would be more than 1.6 million fewer jobs in the United States in 2029 compared to a baseline forecast in which the Act does not become law. Business owners are forecast to reduce the number of employees hired to adjust to higher labor costs, which outweigh any demand-side effects due to additional private consumption.
- Small businesses would be particularly hurt by the Act. Businesses with fewer than 500 employees are forecast to experience 57 percent of private sector job losses (over 900,000 lost jobs), and businesses with fewer than 100 employees are forecast to lose nearly 700,000 jobs, about 43 percent of all jobs lost (**Table 3**).
- Industries such as retail trade, administrative and support services, and food services and drinking places (a sub-industry of the NAICS “leisure and hospitality” industry category) are forecast to experience large numbers of job losses. While proponents of a higher minimum wage tout benefits for industries with large numbers of low-wage employees, this simulation forecasts a large reduction in employment that offsets increased wages for workers who are able to keep or find jobs in these three industries.
- The retail trade industry is forecast to have more than 162,000 fewer jobs by 2029, administrative and support services to have more than 85,000 fewer jobs, and food services and drinking places to have more than 165,000 fewer jobs. The forecast reduction in employment of the three industries combined is more than 392,000 lost jobs, approximately 24 percent of total forecast jobs lost.
- In addition to forecast reductions in employment, real GDP and real output are also forecast to decrease by approximately \$142 billion and \$300 billion, respectively, by 2029 compared to a baseline in which the Act is not enacted (**Table 4**). Over the ten-year forecast window, the cumulative real GDP loss is forecast to exceed \$980 billion and the cumulative real output loss is forecast to exceed \$2.0 trillion (**Table 5**).¹³
- The difficulties in the business sector due to higher labor costs and the associated reduction in private sector employment are reflected in the labor force. The BSIM forecasts that the Raise the Wage Act would reduce the number of able-bodied individuals participating in the labor force by more than 615,000 individuals in 2029.
- The impact the job losses caused by the Raise the Wage Act have on aggregate personal income in the U.S. is considerable. Disposable personal income in 2029 is forecast to be more than \$103 billion lower than the baseline forecast.

¹³ Gross domestic product refers to the market value of final goods and services produced in an economy during a given period. It differs from output which includes not just the value of final goods and services, but also the value of intermediate goods and raw materials that are produced or sourced earlier in the production process. Output serves as a proxy for sales.

Table 3: Private Sector Employment Difference from Baseline (Number of Employees) if the Raise the Wage Act Is Enacted

Firm Size	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Percent of Total (2029)
1-4 Employees	-6,603	-21,135	-38,267	-56,339	-73,626	-90,383	-101,037	-106,325	-111,203	-115,573	-120,207	7.3%
5-9 Employees	-6,976	-22,223	-40,094	-58,936	-76,993	-94,533	-105,658	-111,082	-116,059	-120,466	-125,109	7.6%
10-19 Employees	-7,886	-25,096	-45,239	-66,485	-86,858	-106,665	-119,227	-125,312	-130,841	-135,710	-140,817	8.6%
20-99 Employees	-17,536	-55,684	-100,302	-147,467	-192,759	-236,855	-264,883	-278,477	-290,671	-301,331	-312,389	19.1%
100-499 Employees	-12,625	-39,968	-72,027	-106,181	-139,188	-171,563	-192,493	-203,020	-212,388	-220,509	-228,674	14.0%
500 + Employees	-38,465	-121,338	-218,626	-323,159	-424,728	-525,202	-591,320	-625,896	-656,817	-683,355	-709,076	43.3%
< 20 Employees	-21,466	-68,454	-123,600	-181,760	-237,477	-291,581	-325,922	-342,719	-358,103	-371,749	-386,134	23.6%
< 100 Employees	-39,002	-124,138	-223,902	-329,227	-430,236	-528,437	-590,805	-621,196	-648,774	-673,080	-698,522	42.7%
< 500 Employees	-51,627	-164,106	-295,929	-435,408	-569,424	-700,000	-783,298	-824,216	-861,162	-893,589	-927,196	56.7%
All Firms	-90,092	-285,443	-514,555	-758,567	-994,152	-1,225,202	-1,374,618	-1,450,112	-1,517,979	-1,576,944	-1,636,272	100.0%

Table 4: Real Output Difference from Baseline (Billions of 2015 \$) if the Raise the Wage Act Is Enacted

Firm Size	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Percent of Total (2029)
1-4 Employees	-1.0B	-3.1B	-5.5B	-8.1B	-10.6B	-12.9B	-14.2B	-14.7B	-15.0B	-15.3B	-15.5B	5.2%
5-9 Employees	-0.9B	-3.0B	-5.3B	-7.9B	-10.3B	-12.7B	-14.1B	-14.7B	-15.1B	-15.5B	-15.8B	5.3%
10-19 Employees	-1.1B	-3.5B	-6.3B	-9.3B	-12.2B	-15.1B	-16.9B	-17.7B	-18.3B	-18.8B	-19.3B	6.4%
20-99 Employees	-2.6B	-8.5B	-15.5B	-23.2B	-30.7B	-38.1B	-43.0B	-45.5B	-47.5B	-49.2B	-50.6B	16.9%
100-499 Employees	-2.2B	-7.2B	-13.2B	-19.9B	-26.7B	-33.4B	-38.1B	-40.7B	-43.0B	-44.8B	-46.4B	15.5%
500 + Employees	-7.1B	-22.8B	-41.9B	-63.3B	-85.0B	-106.9B	-122.6B	-131.8B	-139.8B	-146.7B	-152.4B	50.8%
< 20 Employees	-3.0B	-9.5B	-17.2B	-25.3B	-33.2B	-40.7B	-45.2B	-47.0B	-48.5B	-49.6B	-50.6B	16.9%
< 100 Employees	-5.6B	-18.0B	-32.6B	-48.5B	-63.8B	-78.8B	-88.2B	-92.5B	-96.0B	-98.8B	-101.1B	33.7%
< 500 Employees	-7.8B	-25.2B	-45.9B	-68.4B	-90.5B	-112.2B	-126.4B	-133.2B	-138.9B	-143.6B	-147.5B	49.2%
All Firms	-14.9B	-47.9B	-87.8B	-131.8B	-175.5B	-219.1B	-249.0B	-265.0B	-278.8B	-290.3B	-299.9B	100.0%

Table 5: Cumulative Real Output Loss (Billions of 2015 \$) if the Raise the Wage Act Is Enacted

Firm Size	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Percent of Total (2029)
1-4 Employees	-1.0B	-4.0B	-9.6B	-17.7B	-28.3	-41.1B	-55.4B	-70.0B	-85.0B	-100.2B	-115.7B	5.6%
5-9 Employees	-0.9B	-3.9B	-9.2B	-17.1B	-27.5B	-40.2B	-54.3B	-69.0B	-84.1B	-99.6B	-115.4B	5.6%
10-19 Employees	-1.1B	-4.5B	-10.8B	-20.1B	-32.4B	-47.5B	-64.4B	-82.0B	-100.4B	-119.2B	-138.5B	6.7%
20-99 Employees	-2.6B	-11.1B	-26.6B	-49.8B	-80.4B	-118.6B	-161.6B	-207.1B	-254.6B	-303.8B	-354.3B	17.2%
100-499 Employees	-2.2B	-9.4B	-22.6B	-42.6B	-69.2B	-102.6B	-140.8B	-181.5B	-224.5B	-269.3B	-315.7B	15.3%
500 + Employees	-7.1B	-29.9B	-71.8B	-135.1B	-220.1B	-327.1B	-449.7B	-581.4B	-721.3B	-867.9B	-1020.3B	49.5%
< 20 Employees	-3.0B	-12.5B	-29.6B	-55.0B	-88.1B	-128.8B	-174.0B	-221.0B	-269.4B	-319.0B	-369.6B	17.9%
< 100 Employees	-5.6B	-23.6B	-56.2B	-104.7B	-168.6B	-247.3B	-335.6B	-428.1B	-524.0B	-622.8B	-723.9B	35.1%
< 500 Employees	-7.8B	-33.0B	-78.9B	-147.3B	-237.8B	-350.0B	-476.4B	-609.6B	-748.5B	-892.1B	-1039.6B	50.5%
All Firms	-14.9B	-62.9B	-150.7B	-282.4B	-457.9B	-677.1B	-926.0B	-1191.0B	-1469.8B	-1760.0B	-2059.9B	100.0%

U.S. Jobs Lost (Employment Difference from Baseline) by 2029 Due to the Raise the Wage Act, by Employee Size of Firm

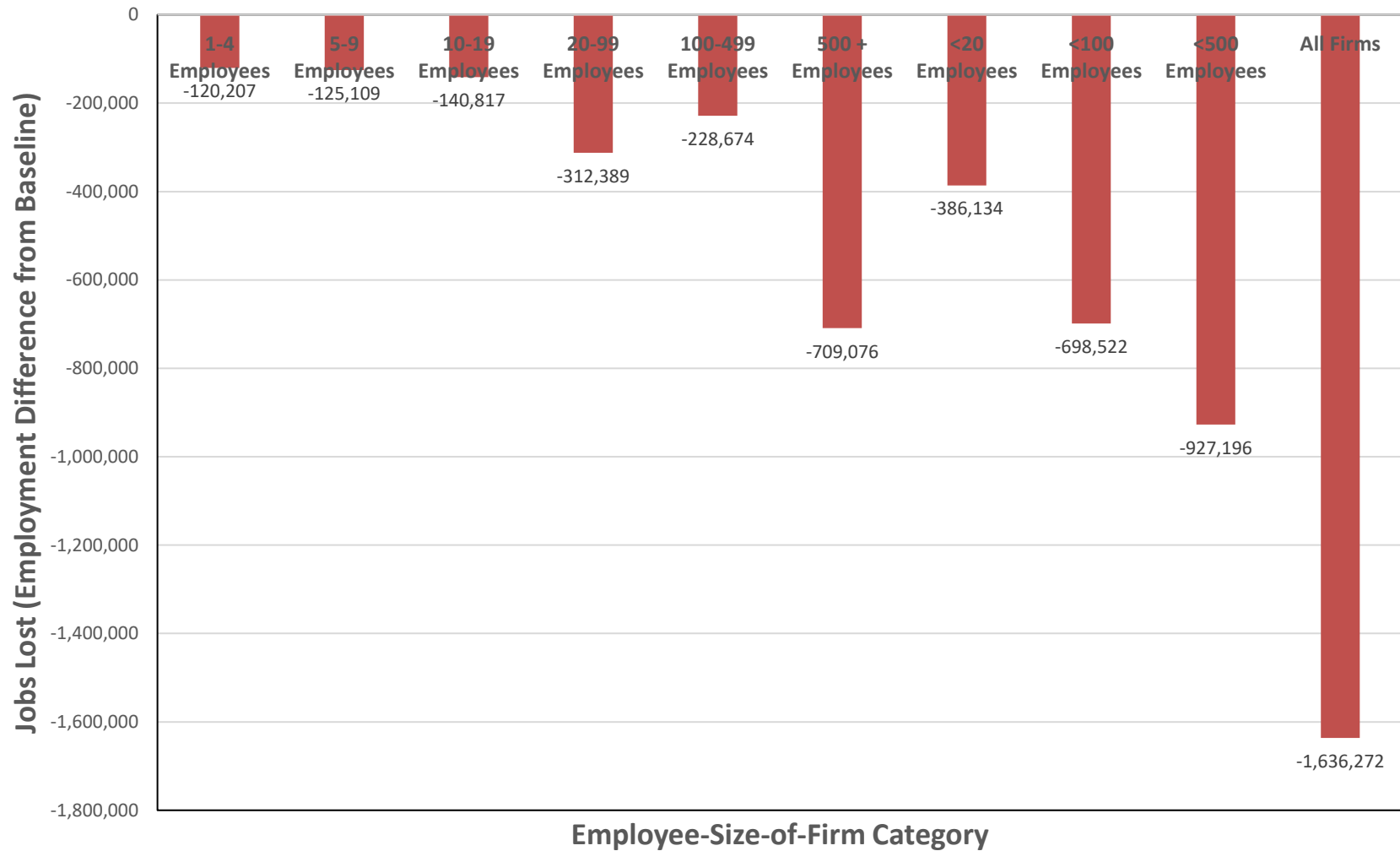


Figure 2

Percentage Shares of Jobs Lost by 2029 Due to the Raise the Wage Act, by Industry and Employee-Size-of-Firm

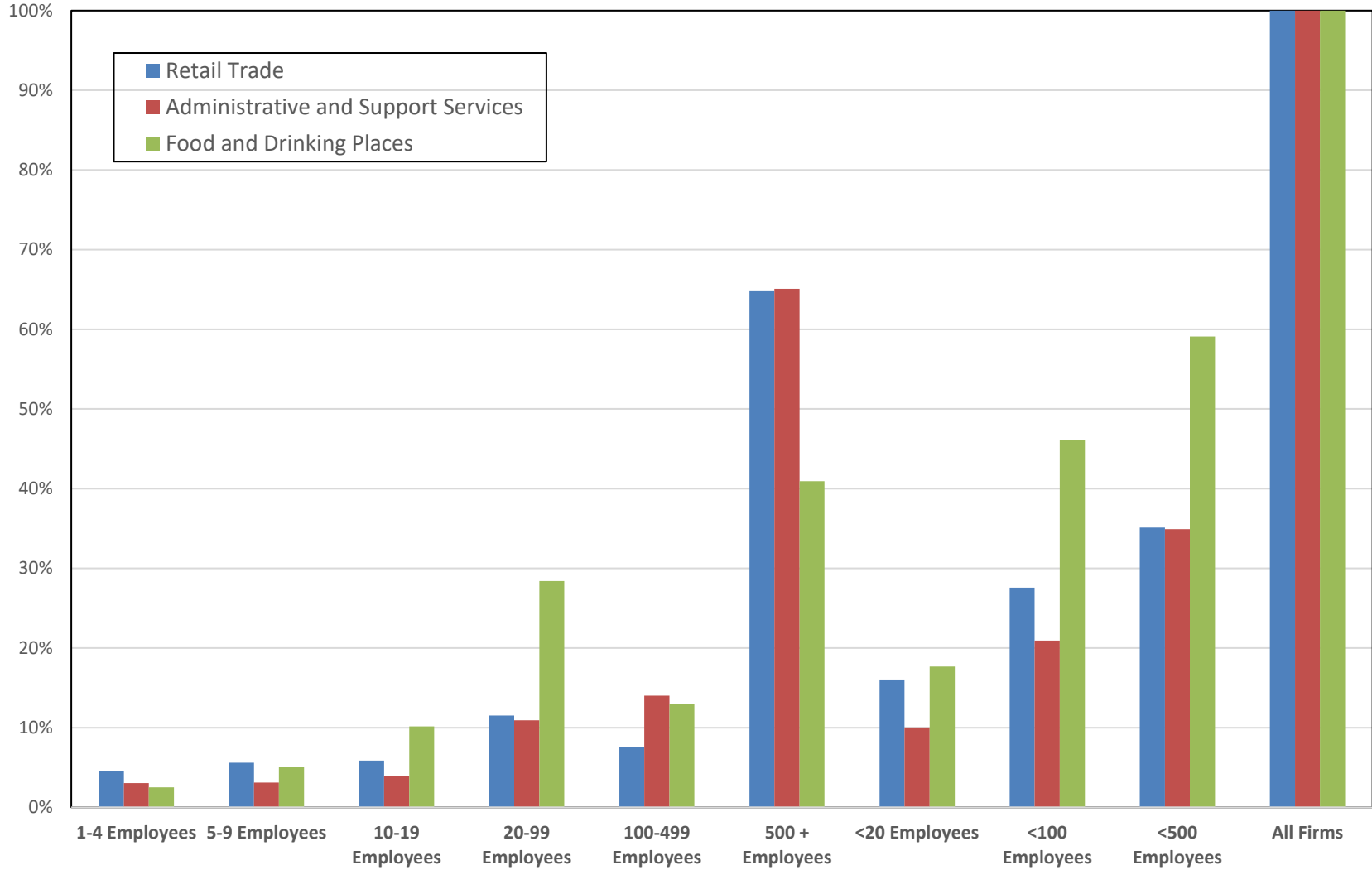


Figure 3

Cumulative Real Output Lost from 2019 to 2029 Due to the Raise the Wage Act, by Employee-Size-of-Firm

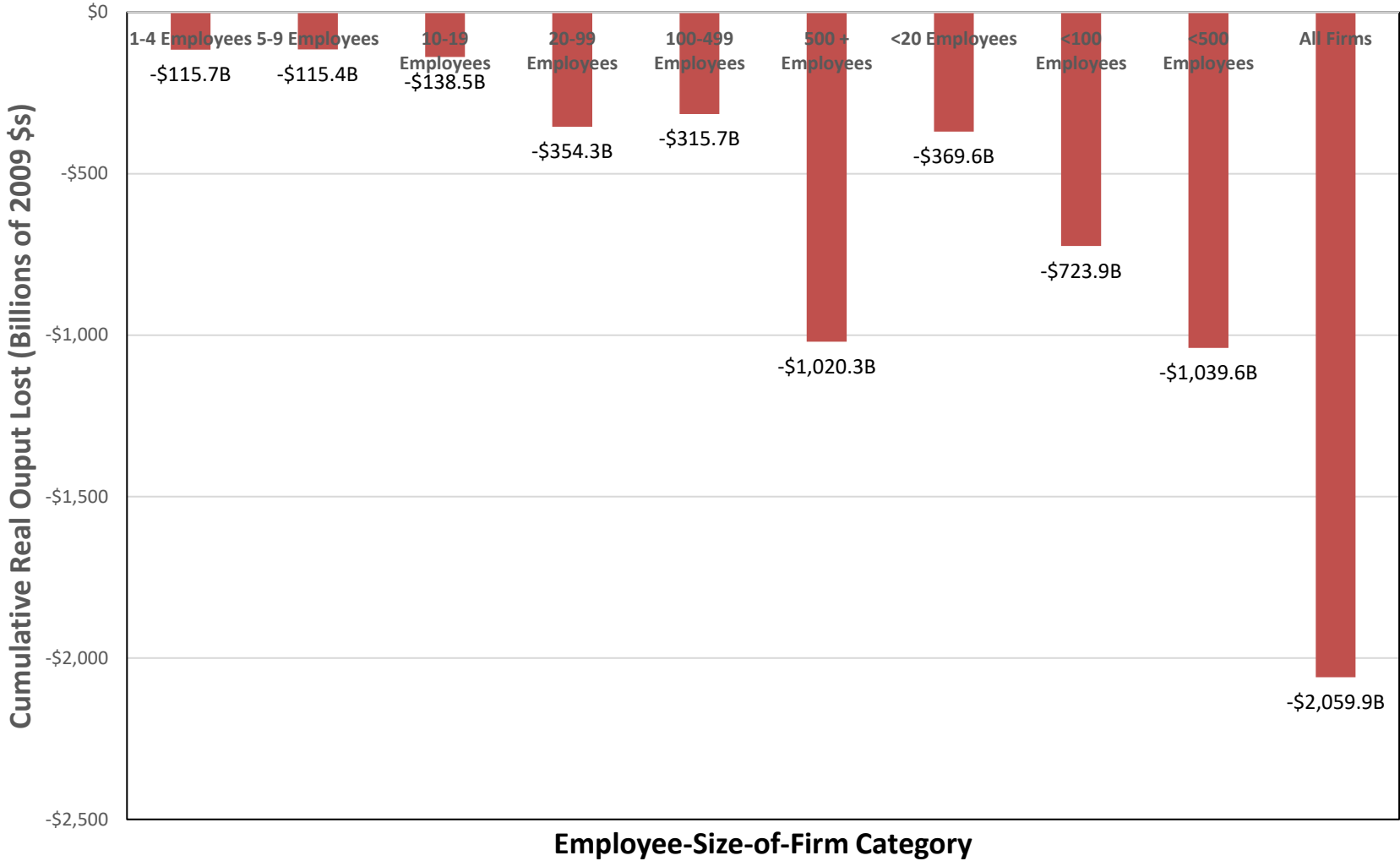


Figure 4

Cumulative Real Output Lost (All Firms) from 2019 to 2029 Due to the Raise the Wage Act

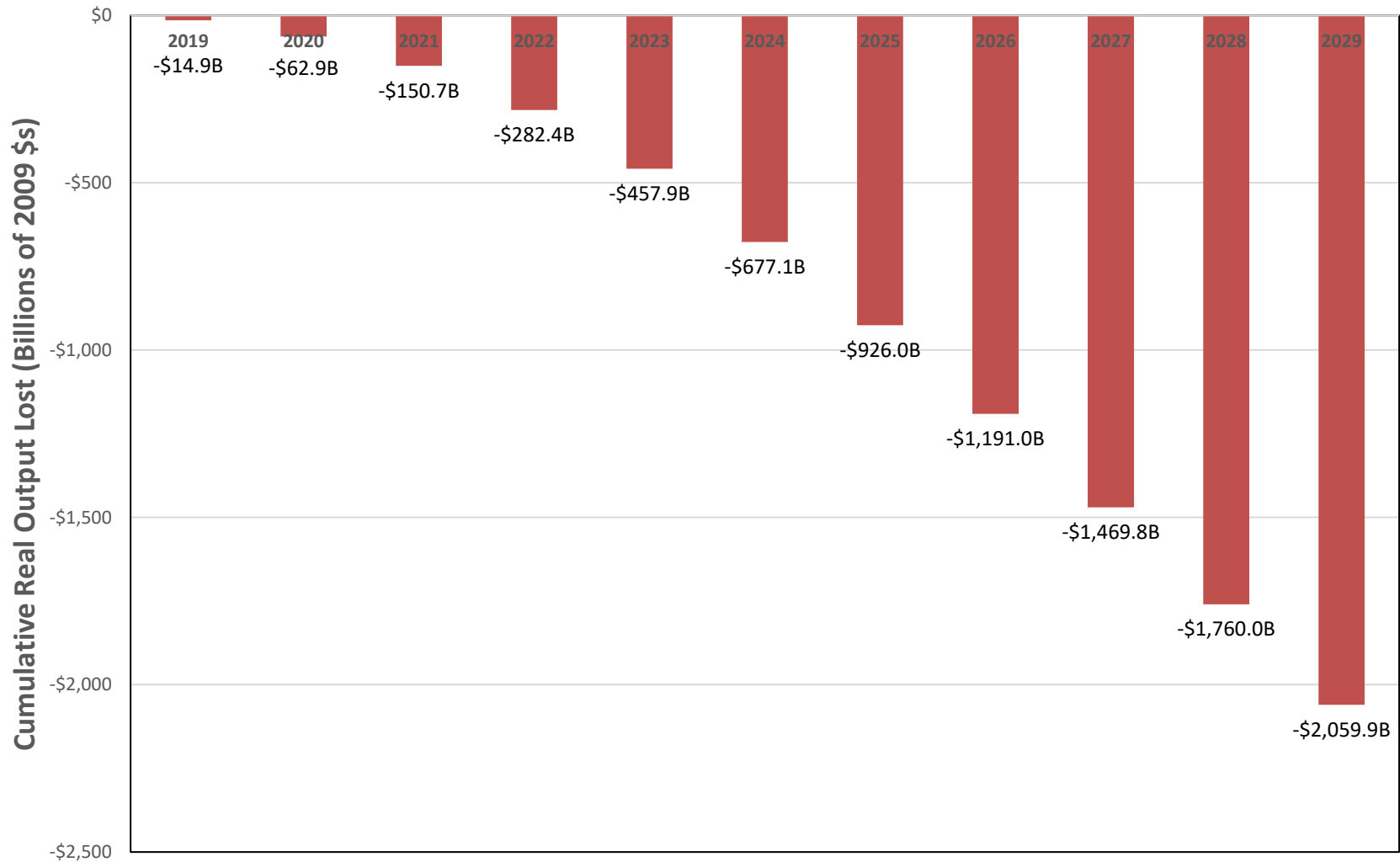


Figure 5

Percentage Shares of Jobs Lost and Cumulative Real Output Lost Due to the Raise the Wage Act, by Employee-Size-of-Firm

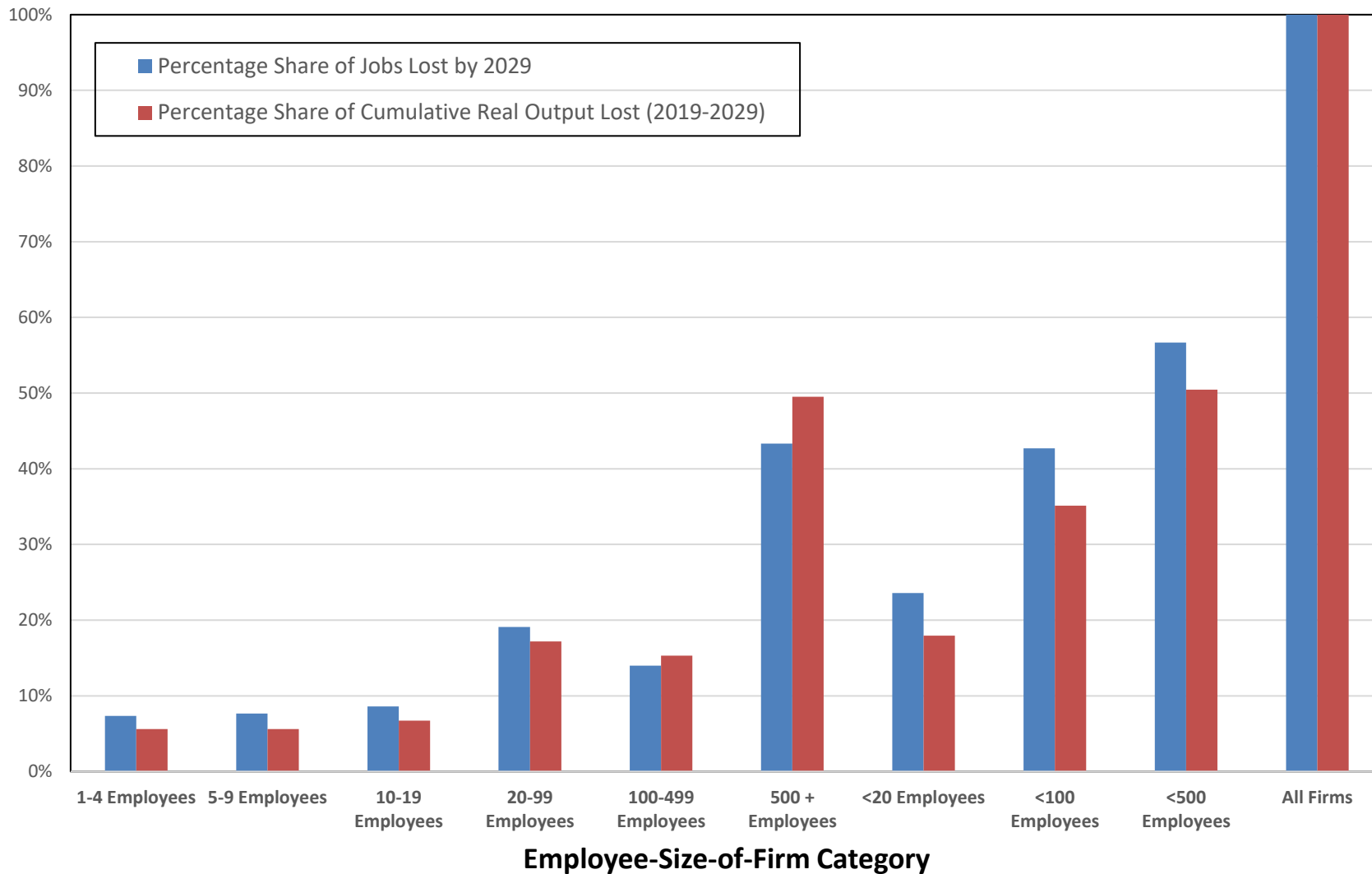


Figure 6

Concluding Remarks

This BSIM simulation forecasts that a federal minimum wage bill that would increase the minimum wage to \$15.00 per hour according to a wage schedule modeled after the one outlined in the Raise the Wage Act would reduce U.S. private sector employment by over 1.6 million jobs over a period spanning 2019 to 2029 and result in a cumulative reduction in U.S. real output of over \$2 trillion over the same time period (even after accounting for any demand-side stimulus caused by workers receiving increased wages). The negative impact of the proposed legislation would fall disproportionately on small employers, which are less likely to have the cash reserves or profit margins to absorb the increase in labor costs than larger businesses. While low-wage workers able to find or retain a job would benefit from the proposed legislation, such gains come at the expense of a very large number of low-wage workers who would lose their jobs due to businesses unable to absorb the costs of a higher minimum wage, resulting in net negative employment and output effects.

At a more disaggregated level, pronounced differences between states in income level and cost of living should persuade policymakers to exercise caution before applying a uniform policy approach to address disparate regional and local situations. A one-size-fits-all federal minimum wage policy is a blunt instrument that is ill-suited to address slow wage growth among low-income workers across states with a large variance in average incomes and the cost of living. According to the Bureau of Economic Analysis, the cost of living in Hawaii (the state with the highest cost of living) is approximately 35 percent higher than Mississippi (the state with the lowest cost of living). A uniform federal minimum wage would treat both Hawaii and Mississippi the same despite the vast difference in average income and cost of living between those two states. In states with a high cost of living, the market wage for low-wage workers is higher than in states with a low cost of living. In principle, an increased federal minimum wage has the potential to have relatively larger negative impacts on state economies with lower costs of living than state economies with higher costs of living.

Since the last federal minimum wage increase, some states—particularly those with high costs of living and high average incomes—have chosen to enact state-level minimum wage increases. Among those states, two have created tiered systems that differentiate urban and rural communities. New York has created three different minimum wage increase schedules based on cost of living. New York City's is the most aggressive, reaching \$15 per hour in 2019. Long Island and several suburban counties have a minimum wage scheduled to increase until reaching \$15 per hour in 2022, and upstate New York's is scheduled to increase at an even slower pace. Similarly, Oregon has enacted a three-tiered minimum wage increase based on the population density of each county. Under this system, the increased cost burden on businesses in lower cost of living areas in both states is reduced. The reasoning of policymakers in these states to apply policies appropriate to localities with diverse costs of living is analogous to the argument that federal minimum wage policy should reflect differences in state costs of living.

Appendix A: Actual and Proposed State Minimum Wage Increase Schedules

Note: Minimum wage rates are weighted to account for mid-year increases during the calendar year. For example, a minimum wage of \$8.55 that increases to \$9.85 in July is shown as \$9.20 in the tables below.

Alabama						
	Existing Minimum Wage Schedule (no state law)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Alaska ¹⁴	COLA:	2.1%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.89	\$9.89	\$0.00	\$9.89	\$9.89	\$0.00
2020	\$10.10	\$10.47	\$0.38	\$10.10	\$10.47	\$0.38
2021	\$10.31	\$11.50	\$1.19	\$10.31	\$11.50	\$1.19
2022	\$10.52	\$12.80	\$2.28	\$10.52	\$12.80	\$2.28
2023	\$10.74	\$14.10	\$3.36	\$10.74	\$14.10	\$3.36
2024	\$10.96	\$15.38	\$4.41	\$10.96	\$15.38	\$4.41
2025	\$11.19	\$16.18	\$4.99	\$11.19	\$16.18	\$4.99
2026	\$11.42	\$16.54	\$5.12	\$11.42	\$16.54	\$5.12
2027	\$11.66	\$16.92	\$5.25	\$11.66	\$16.92	\$5.25
2028	\$11.90	\$17.30	\$5.39	\$11.90	\$17.30	\$5.39
2029	\$12.15	\$17.69	\$5.53	\$12.15	\$17.69	\$5.53

¹⁴ Alaska state law requires the state minimum wage to be at least one dollar higher than the federal minimum wage.

Arizona	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$11.00	\$11.00	\$0.00	\$8.00	\$8.00	\$0.00
2020	\$12.00	\$12.00	\$0.00	\$9.00	\$9.00	\$0.00
2021	\$12.20	\$12.20	\$0.00	\$9.15	\$9.15	\$0.00
2022	\$12.40	\$12.43	\$0.02	\$9.30	\$9.30	\$0.00
2023	\$12.61	\$13.10	\$0.49	\$9.46	\$9.53	\$0.07
2024	\$12.82	\$14.38	\$1.56	\$9.61	\$10.35	\$0.74
2025	\$13.03	\$15.18	\$2.15	\$9.77	\$11.85	\$2.08
2026	\$13.24	\$15.54	\$2.30	\$9.93	\$13.35	\$3.42
2027	\$13.46	\$15.92	\$2.45	\$10.10	\$14.85	\$4.75
2028	\$13.69	\$16.30	\$2.61	\$10.27	\$16.05	\$5.78
2029	\$13.91	\$16.69	\$2.77	\$10.44	\$16.69	\$6.25

Arkansas						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.25	\$9.25	\$0.00	\$2.63	\$3.12	\$0.49
2020	\$10.00	\$10.00	\$0.00	\$2.63	\$4.35	\$1.72
2021	\$11.00	\$11.08	\$0.07	\$2.63	\$5.85	\$3.22
2022	\$11.00	\$11.80	\$0.80	\$2.63	\$7.35	\$4.72
2023	\$11.00	\$13.10	\$2.10	\$2.63	\$8.85	\$6.22
2024	\$11.00	\$14.38	\$3.38	\$2.63	\$10.35	\$7.72
2025	\$11.00	\$15.18	\$4.18	\$2.63	\$11.85	\$9.22
2026	\$11.00	\$15.54	\$4.54	\$2.63	\$13.35	\$10.72
2027	\$11.00	\$15.92	\$4.92	\$2.63	\$14.85	\$12.22
2028	\$11.00	\$16.30	\$5.30	\$2.63	\$16.05	\$13.42
2029	\$11.00	\$16.69	\$5.69	\$2.63	\$16.69	\$14.06

California	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$12.00	\$12.00	\$0.00	\$12.00	\$12.00	\$0.00
2020	\$13.00	\$13.00	\$0.00	\$13.00	\$13.00	\$0.00
2021	\$14.00	\$14.00	\$0.00	\$14.00	\$14.00	\$0.00
2022	\$15.00	\$15.00	\$0.00	\$15.00	\$15.00	\$0.00
2023	\$15.26	\$15.26	\$0.00	\$15.26	\$15.26	\$0.00
2024	\$15.52	\$15.52	\$0.00	\$15.52	\$15.52	\$0.00
2025	\$15.79	\$15.79	\$0.00	\$15.79	\$15.79	\$0.00
2026	\$16.07	\$16.07	\$0.00	\$16.07	\$16.07	\$0.00
2027	\$16.34	\$16.34	\$0.00	\$16.34	\$16.34	\$0.00
2028	\$16.63	\$16.63	\$0.00	\$16.63	\$16.63	\$0.00
2029	\$16.91	\$16.91	\$0.00	\$16.91	\$16.91	\$0.00

Colorado	COLA:	2.4%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$11.10	\$11.10	\$0.00	\$8.08	\$8.08	\$0.00
2020	\$12.00	\$12.00	\$0.00	\$8.98	\$8.98	\$0.00
2021	\$12.28	\$12.28	\$0.00	\$9.19	\$9.19	\$0.00
2022	\$12.58	\$12.58	\$0.00	\$9.41	\$9.41	\$0.00
2023	\$12.87	\$13.31	\$0.44	\$9.63	\$9.62	\$0.00
2024	\$13.18	\$14.38	\$1.20	\$9.86	\$10.48	\$0.62
2025	\$13.49	\$15.18	\$1.69	\$10.10	\$11.85	\$1.75
2026	\$13.81	\$15.54	\$1.73	\$10.34	\$13.35	\$3.01
2027	\$14.14	\$15.92	\$1.78	\$10.58	\$14.85	\$4.27
2028	\$14.47	\$16.30	\$1.82	\$10.83	\$16.05	\$5.22
2029	\$14.82	\$16.69	\$1.87	\$11.09	\$16.69	\$5.60

Connecticut ¹⁵						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.10	\$10.10	\$0.00	\$6.38	\$6.38	\$0.00
2020	\$10.10	\$10.10	\$0.00	\$6.38	\$6.38	\$0.00
2021	\$10.10	\$11.03	\$0.93	\$6.38	\$6.49	\$0.11
2022	\$10.10	\$12.39	\$2.29	\$6.38	\$7.35	\$0.97
2023	\$10.10	\$13.76	\$3.66	\$6.38	\$8.85	\$2.47
2024	\$10.10	\$15.09	\$4.99	\$6.38	\$10.35	\$3.97
2025	\$10.10	\$15.94	\$5.84	\$6.38	\$11.85	\$5.47
2026	\$10.10	\$16.32	\$6.22	\$6.38	\$13.35	\$6.97
2027	\$10.10	\$16.71	\$6.61	\$6.38	\$14.85	\$8.47
2028	\$10.10	\$17.11	\$7.01	\$6.38	\$16.05	\$9.67
2029	\$10.10	\$17.52	\$7.42	\$6.38	\$17.52	\$11.14

Delaware						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.75	\$8.75	\$0.00	\$2.23	\$2.92	\$0.69
2020	\$9.25	\$9.55	\$0.30	\$2.23	\$4.35	\$2.12
2021	\$9.25	\$10.50	\$1.25	\$2.23	\$5.85	\$3.62
2022	\$9.25	\$11.80	\$2.55	\$2.23	\$7.35	\$5.12
2023	\$9.25	\$13.10	\$3.85	\$2.23	\$8.85	\$6.62
2024	\$9.25	\$14.38	\$5.13	\$2.23	\$10.35	\$8.12
2025	\$9.25	\$15.18	\$5.93	\$2.23	\$11.85	\$9.62
2026	\$9.25	\$15.54	\$6.29	\$2.23	\$13.35	\$11.12
2027	\$9.25	\$15.92	\$6.67	\$2.23	\$14.85	\$12.62
2028	\$9.25	\$16.30	\$7.05	\$2.23	\$16.05	\$13.82
2029	\$9.25	\$16.69	\$7.44	\$2.23	\$16.69	\$14.46

¹⁵ Connecticut state law requires the state minimum wage to be at least five percent higher than the federal minimum wage.

District of Columbia	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$13.63	\$13.25	\$0.00	\$4.17	\$4.17	\$0.00
2020	\$14.50	\$14.50	\$0.00	\$4.73	\$4.91	\$0.19
2021	\$15.12	\$15.12	\$0.00	\$5.00	\$5.85	\$0.85
2022	\$15.38	\$15.38	\$0.00	\$5.00	\$7.35	\$2.35
2023	\$15.63	\$15.63	\$0.00	\$5.00	\$8.85	\$3.85
2024	\$15.89	\$15.89	\$0.00	\$5.00	\$10.35	\$5.35
2025	\$16.15	\$16.15	\$0.00	\$5.00	\$11.85	\$6.85
2026	\$16.42	\$16.42	\$0.00	\$5.00	\$13.35	\$8.35
2027	\$16.69	\$16.69	\$0.00	\$5.00	\$14.85	\$9.85
2028	\$16.97	\$16.97	\$0.00	\$5.00	\$16.05	\$11.05
2029	\$17.25	\$17.25	\$0.00	\$5.00	\$16.69	\$11.69

Florida	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.46	\$8.51	\$0.04	\$5.44	\$5.44	\$0.00
2020	\$8.61	\$9.23	\$0.62	\$5.53	\$5.53	\$0.00
2021	\$8.76	\$10.50	\$1.74	\$5.63	\$6.11	\$0.49
2022	\$8.91	\$11.80	\$2.89	\$5.73	\$7.35	\$1.62
2023	\$9.06	\$13.10	\$4.04	\$5.83	\$8.85	\$3.02
2024	\$9.22	\$14.38	\$5.16	\$5.93	\$10.35	\$4.42
2025	\$9.38	\$15.18	\$5.80	\$6.03	\$11.85	\$5.82
2026	\$9.54	\$15.54	\$6.00	\$6.13	\$13.35	\$7.22
2027	\$9.70	\$15.92	\$6.21	\$6.24	\$14.85	\$8.61
2028	\$9.87	\$16.30	\$6.42	\$6.35	\$16.05	\$9.70
2029	\$10.04	\$16.69	\$6.64	\$6.46	\$16.69	\$10.23

Georgia						
	Existing Minimum Wage Schedule (state: \$5.15)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Hawaii						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.10	\$10.10	\$0.00	\$9.35	\$9.35	\$0.00
2020	\$10.10	\$10.10	\$0.00	\$9.35	\$9.35	\$0.00
2021	\$10.10	\$10.63	\$0.53	\$9.35	\$9.35	\$0.00
2022	\$10.10	\$11.80	\$1.70	\$9.35	\$9.35	\$0.00
2023	\$10.10	\$13.10	\$3.00	\$9.35	\$9.48	\$0.13
2024	\$10.10	\$14.38	\$4.28	\$9.35	\$10.35	\$1.00
2025	\$10.10	\$15.18	\$5.08	\$9.35	\$11.85	\$2.50
2026	\$10.10	\$15.54	\$5.44	\$9.35	\$13.35	\$4.00
2027	\$10.10	\$15.92	\$5.82	\$9.35	\$14.85	\$5.50
2028	\$10.10	\$16.30	\$6.20	\$9.35	\$16.05	\$6.70
2029	\$10.10	\$16.69	\$6.59	\$9.35	\$16.69	\$7.34

Idaho						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$3.35	\$3.35	\$0.00
2020	\$7.25	\$9.20	\$1.95	\$3.35	\$4.35	\$1.00
2021	\$7.25	\$10.50	\$3.25	\$3.35	\$5.85	\$2.50
2022	\$7.25	\$11.80	\$4.55	\$3.35	\$7.35	\$4.00
2023	\$7.25	\$13.10	\$5.85	\$3.35	\$8.85	\$5.50
2024	\$7.25	\$14.38	\$7.13	\$3.35	\$10.35	\$7.00
2025	\$7.25	\$15.18	\$7.93	\$3.35	\$11.85	\$8.50
2026	\$7.25	\$15.54	\$8.29	\$3.35	\$13.35	\$10.00
2027	\$7.25	\$15.92	\$8.67	\$3.35	\$14.85	\$11.50
2028	\$7.25	\$16.30	\$9.05	\$3.35	\$16.05	\$12.70
2029	\$7.25	\$16.69	\$9.44	\$3.35	\$16.69	\$13.34

Illinois						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.25	\$8.40	\$0.15	\$4.95	\$4.95	\$0.00
2020	\$8.25	\$9.20	\$0.95	\$4.95	\$5.03	\$0.08
2021	\$8.25	\$10.50	\$2.25	\$4.95	\$5.85	\$0.90
2022	\$8.25	\$11.80	\$3.55	\$4.95	\$7.35	\$2.40
2023	\$8.25	\$13.10	\$4.85	\$4.95	\$8.85	\$3.90
2024	\$8.25	\$14.38	\$6.13	\$4.95	\$10.35	\$5.40
2025	\$8.25	\$15.18	\$6.93	\$4.95	\$11.85	\$6.90
2026	\$8.25	\$15.54	\$7.29	\$4.95	\$13.35	\$8.40
2027	\$8.25	\$15.92	\$7.67	\$4.95	\$14.85	\$9.90
2028	\$8.25	\$16.30	\$8.05	\$4.95	\$16.05	\$11.10
2029	\$8.25	\$16.69	\$8.44	\$4.95	\$16.69	\$11.74

Indiana						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Iowa						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$4.35	\$4.35	\$0.00
2020	\$7.25	\$9.20	\$1.95	\$4.35	\$4.73	\$0.38
2021	\$7.25	\$10.50	\$3.25	\$4.35	\$5.85	\$1.50
2022	\$7.25	\$11.80	\$4.55	\$4.35	\$7.35	\$3.00
2023	\$7.25	\$13.10	\$5.85	\$4.35	\$8.85	\$4.50
2024	\$7.25	\$14.38	\$7.13	\$4.35	\$10.35	\$6.00
2025	\$7.25	\$15.18	\$7.93	\$4.35	\$11.85	\$7.50
2026	\$7.25	\$15.54	\$8.29	\$4.35	\$13.35	\$9.00
2027	\$7.25	\$15.92	\$8.67	\$4.35	\$14.85	\$10.50
2028	\$7.25	\$16.30	\$9.05	\$4.35	\$16.05	\$11.70
2029	\$7.25	\$16.69	\$9.44	\$4.35	\$16.69	\$12.34

Kansas						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Kentucky						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Louisiana						
	Existing Minimum Wage Schedule (no state law)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Maine						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$11.00	\$11.00	\$0.00	\$5.50	\$5.50	\$0.00
2020	\$12.00	\$12.00	\$0.00	\$6.00	\$6.00	\$0.00
2021	\$12.00	\$12.00	\$0.00	\$6.00	\$6.30	\$0.30
2022	\$12.00	\$12.23	\$0.23	\$6.00	\$7.35	\$1.35
2023	\$12.00	\$13.10	\$1.10	\$6.00	\$8.85	\$2.85
2024	\$12.00	\$14.38	\$2.38	\$6.00	\$10.35	\$4.35
2025	\$12.00	\$15.18	\$3.18	\$6.00	\$11.85	\$5.85
2026	\$12.00	\$15.54	\$3.54	\$6.00	\$13.35	\$7.35
2027	\$12.00	\$15.92	\$3.92	\$6.00	\$14.85	\$8.85
2028	\$12.00	\$16.30	\$4.30	\$6.00	\$16.05	\$10.05
2029	\$12.00	\$16.69	\$4.69	\$6.00	\$16.69	\$10.69

Maryland						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.10	\$10.10	\$0.00	\$3.63	\$3.63	\$0.00
2020	\$10.10	\$10.10	\$0.00	\$3.63	\$4.37	\$0.74
2021	\$10.10	\$10.63	\$0.53	\$3.63	\$5.85	\$2.22
2022	\$10.10	\$11.80	\$1.70	\$3.63	\$7.35	\$3.72
2023	\$10.10	\$13.10	\$3.00	\$3.63	\$8.85	\$5.22
2024	\$10.10	\$14.38	\$4.28	\$3.63	\$10.35	\$6.72
2025	\$10.10	\$15.18	\$5.08	\$3.63	\$11.85	\$8.22
2026	\$10.10	\$15.54	\$5.44	\$3.63	\$13.35	\$9.72
2027	\$10.10	\$15.92	\$5.82	\$3.63	\$14.85	\$11.22
2028	\$10.10	\$16.30	\$6.20	\$3.63	\$16.05	\$12.42
2029	\$10.10	\$16.69	\$6.59	\$3.63	\$16.69	\$13.06

Massachusetts ¹⁶						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$12.00	\$12.00	\$0.00	\$3.35	\$3.35	\$0.00
2020	\$12.75	\$12.75	\$0.00	\$3.75	\$4.43	\$0.68
2021	\$13.50	\$13.50	\$0.00	\$3.75	\$5.85	\$2.10
2022	\$14.25	\$14.25	\$0.00	\$3.75	\$7.35	\$3.60
2023	\$15.00	\$15.00	\$0.00	\$3.75	\$8.85	\$5.10
2024	\$15.00	\$15.00	\$0.00	\$3.75	\$10.35	\$6.60
2025	\$15.00	\$15.68	\$0.68	\$3.75	\$11.85	\$8.10
2026	\$15.00	\$16.04	\$1.04	\$3.75	\$13.35	\$9.60
2027	\$15.00	\$16.42	\$1.42	\$3.75	\$14.85	\$11.10
2028	\$15.00	\$16.80	\$1.80	\$3.75	\$16.05	\$12.30
2029	\$15.00	\$17.19	\$2.19	\$3.75	\$16.69	\$12.94

¹⁶ Massachusetts state law requires the state minimum wage to be at least fifty cents higher than the federal minimum wage.

Michigan	COLA:	2.0%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.40	\$9.40	\$0.00	\$3.57	\$3.57	\$0.00
2020	\$9.65	\$9.75	\$0.10	\$3.67	\$4.38	\$0.72
2021	\$9.87	\$10.51	\$0.64	\$3.75	\$5.85	\$2.10
2022	\$10.10	\$11.80	\$1.70	\$3.84	\$7.35	\$3.51
2023	\$10.33	\$13.10	\$2.77	\$3.93	\$8.85	\$4.92
2024	\$10.56	\$14.38	\$3.82	\$4.01	\$10.35	\$6.34
2025	\$10.80	\$15.18	\$4.38	\$4.10	\$11.85	\$7.75
2026	\$11.04	\$15.54	\$4.50	\$4.20	\$13.35	\$9.15
2027	\$11.29	\$15.92	\$4.63	\$4.29	\$14.85	\$10.56
2028	\$11.54	\$16.30	\$4.76	\$4.39	\$16.05	\$11.66
2029	\$11.79	\$16.69	\$4.90	\$4.48	\$16.69	\$12.21

Minnesota	COLA:	1.6%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.86	\$9.86	\$0.00	\$9.86	\$9.86	\$0.00
2020	\$10.02	\$10.02	\$0.00	\$10.02	\$10.02	\$0.00
2021	\$10.18	\$10.66	\$0.49	\$10.18	\$10.66	\$0.49
2022	\$10.34	\$11.80	\$1.46	\$10.34	\$11.80	\$1.46
2023	\$10.50	\$13.10	\$2.60	\$10.50	\$13.10	\$2.60
2024	\$10.67	\$14.38	\$3.71	\$10.67	\$14.38	\$3.71
2025	\$10.84	\$15.18	\$4.34	\$10.84	\$15.18	\$4.34
2026	\$11.01	\$15.54	\$4.54	\$11.01	\$15.54	\$4.54
2027	\$11.18	\$15.92	\$4.73	\$11.18	\$15.92	\$4.73
2028	\$11.36	\$16.30	\$4.94	\$11.36	\$16.30	\$4.94
2029	\$11.54	\$16.69	\$5.15	\$11.54	\$16.69	\$5.15

Mississippi						
	Existing Minimum Wage Schedule (no state law)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Missouri	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.60	\$8.60	\$0.00	\$4.30	\$4.30	\$0.00
2020	\$9.45	\$9.65	\$0.20	\$4.73	\$4.91	\$0.19
2021	\$10.30	\$10.73	\$0.43	\$5.15	\$5.88	\$0.73
2022	\$11.15	\$11.80	\$0.65	\$5.58	\$7.35	\$1.78
2023	\$12.00	\$13.10	\$1.10	\$6.00	\$8.85	\$2.85
2024	\$12.21	\$14.38	\$2.17	\$6.10	\$10.35	\$4.25
2025	\$12.42	\$15.18	\$2.76	\$6.21	\$11.85	\$5.64
2026	\$12.63	\$15.54	\$2.91	\$6.32	\$13.35	\$7.03
2027	\$12.85	\$15.92	\$3.06	\$6.43	\$14.85	\$8.42
2028	\$13.08	\$16.30	\$3.22	\$6.54	\$16.05	\$9.51
2029	\$13.30	\$16.69	\$3.38	\$6.65	\$16.69	\$10.04

Montana	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.50	\$8.53	\$0.03	\$8.50	\$8.53	\$0.03
2020	\$8.64	\$9.25	\$0.60	\$8.64	\$9.25	\$0.60
2021	\$8.78	\$10.50	\$1.72	\$8.78	\$10.50	\$1.72
2022	\$8.93	\$11.80	\$2.87	\$8.93	\$11.80	\$2.87
2023	\$9.08	\$13.10	\$4.02	\$9.08	\$13.10	\$4.02
2024	\$9.23	\$14.38	\$5.15	\$9.23	\$14.38	\$5.15
2025	\$9.38	\$15.18	\$5.80	\$9.38	\$15.18	\$5.80
2026	\$9.54	\$15.54	\$6.01	\$9.54	\$15.54	\$6.01
2027	\$9.69	\$15.92	\$6.22	\$9.69	\$15.92	\$6.22
2028	\$9.86	\$16.30	\$6.44	\$9.86	\$16.30	\$6.44
2029	\$10.02	\$16.69	\$6.67	\$10.02	\$16.69	\$6.67

Nebraska						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.00	\$9.00	\$0.00	\$2.13	\$2.87	\$0.74
2020	\$9.00	\$9.43	\$0.43	\$2.13	\$4.35	\$2.22
2021	\$9.00	\$10.50	\$1.50	\$2.13	\$5.85	\$3.72
2022	\$9.00	\$11.80	\$2.80	\$2.13	\$7.35	\$5.22
2023	\$9.00	\$13.10	\$4.10	\$2.13	\$8.85	\$6.72
2024	\$9.00	\$14.38	\$5.38	\$2.13	\$10.35	\$8.22
2025	\$9.00	\$15.18	\$6.18	\$2.13	\$11.85	\$9.72
2026	\$9.00	\$15.54	\$6.54	\$2.13	\$13.35	\$11.22
2027	\$9.00	\$15.92	\$6.92	\$2.13	\$14.85	\$12.72
2028	\$9.00	\$16.30	\$7.30	\$2.13	\$16.05	\$13.92
2029	\$9.00	\$16.69	\$7.69	\$2.13	\$16.69	\$14.56

Nevada	COLA:	1.5%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.25	\$8.40	\$0.15	\$8.25	\$8.40	\$0.15
2020	\$8.38	\$9.20	\$0.82	\$8.38	\$9.20	\$0.82
2021	\$8.50	\$10.50	\$2.00	\$8.50	\$10.50	\$2.00
2022	\$8.63	\$11.80	\$3.17	\$8.63	\$11.80	\$3.17
2023	\$8.77	\$13.10	\$4.33	\$8.77	\$13.10	\$4.33
2024	\$8.90	\$14.38	\$5.47	\$8.90	\$14.38	\$5.47
2025	\$9.04	\$15.18	\$6.14	\$9.04	\$15.18	\$6.14
2026	\$9.18	\$15.54	\$6.37	\$9.18	\$15.54	\$6.37
2027	\$9.32	\$15.92	\$6.60	\$9.32	\$15.92	\$6.60
2028	\$9.46	\$16.30	\$6.84	\$9.46	\$16.30	\$6.84
2029	\$9.60	\$16.69	\$7.08	\$9.60	\$16.69	\$7.08

New Hampshire						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$3.26	\$3.26	\$0.00
2020	\$7.25	\$9.20	\$1.95	\$3.26	\$4.35	\$1.09
2021	\$7.25	\$10.50	\$3.25	\$3.26	\$5.85	\$2.59
2022	\$7.25	\$11.80	\$4.55	\$3.26	\$7.35	\$4.09
2023	\$7.25	\$13.10	\$5.85	\$3.26	\$8.85	\$5.59
2024	\$7.25	\$14.38	\$7.13	\$3.26	\$10.35	\$7.09
2025	\$7.25	\$15.18	\$7.93	\$3.26	\$11.85	\$8.59
2026	\$7.25	\$15.54	\$8.29	\$3.26	\$13.35	\$10.09
2027	\$7.25	\$15.92	\$8.67	\$3.26	\$14.85	\$11.59
2028	\$7.25	\$16.30	\$9.05	\$3.26	\$16.05	\$12.79
2029	\$7.25	\$16.69	\$9.44	\$3.26	\$16.69	\$13.42

New Jersey	COLA:	1.6%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.85	\$8.85	\$0.00	\$2.13	\$2.87	\$0.74
2020	\$8.99	\$9.42	\$0.43	\$2.13	\$4.35	\$2.22
2021	\$9.13	\$10.50	\$1.37	\$2.13	\$5.85	\$3.72
2022	\$9.28	\$11.80	\$2.52	\$2.13	\$7.35	\$5.22
2023	\$9.43	\$13.10	\$3.67	\$2.13	\$8.85	\$6.72
2024	\$9.58	\$14.38	\$4.80	\$2.13	\$10.35	\$8.22
2025	\$9.73	\$15.18	\$5.45	\$2.13	\$11.85	\$9.72
2026	\$9.88	\$15.54	\$5.66	\$2.13	\$13.35	\$11.22
2027	\$10.04	\$15.92	\$5.87	\$2.13	\$14.85	\$12.72
2028	\$10.20	\$16.30	\$6.10	\$2.13	\$16.05	\$13.92
2029	\$10.36	\$16.69	\$6.32	\$2.13	\$16.69	\$14.56

New Mexico						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.50	\$8.03	\$0.53	\$2.13	\$2.87	\$0.74
2020	\$7.50	\$9.20	\$1.70	\$2.13	\$4.35	\$2.22
2021	\$7.50	\$10.50	\$3.00	\$2.13	\$5.85	\$3.72
2022	\$7.50	\$11.80	\$4.30	\$2.13	\$7.35	\$5.22
2023	\$7.50	\$13.10	\$5.60	\$2.13	\$8.85	\$6.72
2024	\$7.50	\$14.38	\$6.88	\$2.13	\$10.35	\$8.22
2025	\$7.50	\$15.18	\$7.68	\$2.13	\$11.85	\$9.72
2026	\$7.50	\$15.54	\$8.04	\$2.13	\$13.35	\$11.22
2027	\$7.50	\$15.92	\$8.42	\$2.13	\$14.85	\$12.72
2028	\$7.50	\$16.30	\$8.80	\$2.13	\$16.05	\$13.92
2029	\$7.50	\$16.69	\$9.19	\$2.13	\$16.69	\$14.56

New York ¹⁷						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$11.10	\$11.10	\$0.00	\$7.50	\$7.50	\$0.00
2020	\$11.80	\$11.80	\$0.00	\$7.85	\$7.85	\$0.00
2021	\$12.50	\$12.50	\$0.00	\$8.35	\$8.35	\$0.00
2022	\$13.20	\$13.20	\$0.00	\$8.85	\$8.85	\$0.00
2023	\$13.90	\$13.90	\$0.00	\$9.35	\$9.48	\$0.13
2024	\$14.60	\$14.80	\$0.20	\$9.85	\$10.48	\$0.63
2025	\$15.00	\$15.18	\$0.18	\$10.00	\$11.85	\$1.85
2026	\$15.00	\$15.54	\$0.54	\$10.00	\$13.35	\$3.35
2027	\$15.00	\$15.92	\$0.92	\$10.00	\$14.85	\$4.85
2028	\$15.00	\$16.30	\$1.30	\$10.00	\$16.05	\$6.05
2029	\$15.00	\$16.69	\$1.69	\$10.00	\$16.69	\$6.69

North Carolina						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

¹⁷ New York's recently enacted minimum wage increase operates under three separate schedules: New York City, the counties surrounding New York City, and upstate New York. In the interest of conservatism, this model used the most aggressive schedule.

North Dakota						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$4.86	\$4.86	\$0.00
2020	\$7.25	\$9.20	\$1.95	\$4.86	\$4.98	\$0.12
2021	\$7.25	\$10.50	\$3.25	\$4.86	\$5.85	\$0.99
2022	\$7.25	\$11.80	\$4.55	\$4.86	\$7.35	\$2.49
2023	\$7.25	\$13.10	\$5.85	\$4.86	\$8.85	\$3.99
2024	\$7.25	\$14.38	\$7.13	\$4.86	\$10.35	\$5.49
2025	\$7.25	\$15.18	\$7.93	\$4.86	\$11.85	\$6.99
2026	\$7.25	\$15.54	\$8.29	\$4.86	\$13.35	\$8.49
2027	\$7.25	\$15.92	\$8.67	\$4.86	\$14.85	\$9.99
2028	\$7.25	\$16.30	\$9.05	\$4.86	\$16.05	\$11.19
2029	\$7.25	\$16.69	\$9.44	\$4.86	\$16.69	\$11.83

Ohio	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.55	\$8.55	\$0.00	\$4.28	\$4.28	\$0.00
2020	\$8.69	\$9.27	\$0.58	\$4.35	\$4.72	\$0.38
2021	\$8.84	\$10.50	\$1.66	\$4.42	\$5.85	\$1.43
2022	\$8.98	\$11.80	\$2.82	\$4.49	\$7.35	\$2.86
2023	\$9.13	\$13.10	\$3.97	\$4.57	\$8.85	\$4.28
2024	\$9.28	\$14.38	\$5.09	\$4.64	\$10.35	\$5.71
2025	\$9.44	\$15.18	\$5.74	\$4.72	\$11.85	\$7.13
2026	\$9.59	\$15.54	\$5.95	\$4.80	\$13.35	\$8.55
2027	\$9.75	\$15.92	\$6.16	\$4.88	\$14.85	\$9.97
2028	\$9.91	\$16.30	\$6.38	\$4.96	\$16.05	\$11.09
2029	\$10.08	\$16.69	\$6.61	\$5.04	\$16.69	\$11.65

Oklahoma						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$3.63	\$3.63	\$0.00
2020	\$7.25	\$9.20	\$1.95	\$3.63	\$4.36	\$0.74
2021	\$7.25	\$10.50	\$3.25	\$3.63	\$5.85	\$2.23
2022	\$7.25	\$11.80	\$4.55	\$3.63	\$7.35	\$3.73
2023	\$7.25	\$13.10	\$5.85	\$3.63	\$8.85	\$5.23
2024	\$7.25	\$14.38	\$7.13	\$3.63	\$10.35	\$6.73
2025	\$7.25	\$15.18	\$7.93	\$3.63	\$11.85	\$8.23
2026	\$7.25	\$15.54	\$8.29	\$3.63	\$13.35	\$9.73
2027	\$7.25	\$15.92	\$8.67	\$3.63	\$14.85	\$11.23
2028	\$7.25	\$16.30	\$9.05	\$3.63	\$16.05	\$12.43
2029	\$7.25	\$16.69	\$9.44	\$3.63	\$16.69	\$13.06

Oregon ¹⁸	COLA:	1.8%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.75	\$10.75	\$0.00	\$10.75	\$10.75	\$0.00
2020	\$11.25	\$11.25	\$0.00	\$11.25	\$11.25	\$0.00
2021	\$11.75	\$11.75	\$0.00	\$11.75	\$11.75	\$0.00
2022	\$12.25	\$12.35	\$0.10	\$12.25	\$12.35	\$0.10
2023	\$12.61	\$13.18	\$0.57	\$12.61	\$13.18	\$0.57
2024	\$12.83	\$14.38	\$1.54	\$12.83	\$14.38	\$1.54
2025	\$13.06	\$15.18	\$2.12	\$13.06	\$15.18	\$2.12
2026	\$13.29	\$15.54	\$2.26	\$13.29	\$15.54	\$2.26
2027	\$13.52	\$15.92	\$2.40	\$13.52	\$15.92	\$2.40
2028	\$13.76	\$16.30	\$2.54	\$13.76	\$16.30	\$2.54
2029	\$14.00	\$16.69	\$2.69	\$14.00	\$16.69	\$2.69

¹⁸ Oregon’s recently enacted minimum wage increase operates under three separate schedules dependent upon each county’s population density. In the interest of conservatism, this model used the most aggressive schedule.

Pennsylvania						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.83	\$3.22	\$0.39
2020	\$7.25	\$9.20	\$1.95	\$2.83	\$4.35	\$1.52
2021	\$7.25	\$10.50	\$3.25	\$2.83	\$5.85	\$3.02
2022	\$7.25	\$11.80	\$4.55	\$2.83	\$7.35	\$4.52
2023	\$7.25	\$13.10	\$5.85	\$2.83	\$8.85	\$6.02
2024	\$7.25	\$14.38	\$7.13	\$2.83	\$10.35	\$7.52
2025	\$7.25	\$15.18	\$7.93	\$2.83	\$11.85	\$9.02
2026	\$7.25	\$15.54	\$8.29	\$2.83	\$13.35	\$10.52
2027	\$7.25	\$15.92	\$8.67	\$2.83	\$14.85	\$12.02
2028	\$7.25	\$16.30	\$9.05	\$2.83	\$16.05	\$13.22
2029	\$7.25	\$16.69	\$9.44	\$2.83	\$16.69	\$13.86

Rhode Island						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.50	\$10.50	\$0.00	\$3.89	\$3.89	\$0.00
2020	\$10.50	\$10.50	\$0.00	\$3.89	\$4.50	\$0.61
2021	\$10.50	\$10.83	\$0.32	\$3.89	\$5.85	\$1.96
2022	\$10.50	\$11.80	\$1.30	\$3.89	\$7.35	\$3.46
2023	\$10.50	\$13.10	\$2.60	\$3.89	\$8.85	\$4.96
2024	\$10.50	\$14.38	\$3.88	\$3.89	\$10.35	\$6.46
2025	\$10.50	\$15.18	\$4.68	\$3.89	\$11.85	\$7.96
2026	\$10.50	\$15.54	\$5.04	\$3.89	\$13.35	\$9.46
2027	\$10.50	\$15.92	\$5.42	\$3.89	\$14.85	\$10.96
2028	\$10.50	\$16.30	\$5.80	\$3.89	\$16.05	\$12.16
2029	\$10.50	\$16.69	\$6.19	\$3.89	\$16.69	\$12.80

South Carolina						
	Existing Minimum Wage Schedule (no state law)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

South Dakota	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$9.10	\$9.10	\$0.00	\$4.55	\$4.55	\$0.00
2020	\$9.25	\$9.55	\$0.30	\$4.63	\$4.86	\$0.24
2021	\$9.40	\$10.50	\$1.10	\$4.70	\$5.85	\$1.15
2022	\$9.56	\$11.80	\$2.24	\$4.78	\$7.35	\$2.57
2023	\$9.72	\$13.10	\$3.38	\$4.86	\$8.85	\$3.99
2024	\$9.88	\$14.38	\$4.50	\$4.94	\$10.35	\$5.41
2025	\$10.04	\$15.18	\$5.14	\$5.02	\$11.85	\$6.83
2026	\$10.21	\$15.54	\$5.33	\$5.10	\$13.35	\$8.25
2027	\$10.38	\$15.92	\$5.54	\$5.19	\$14.85	\$9.66
2028	\$10.55	\$16.30	\$5.75	\$5.28	\$16.05	\$10.77
2029	\$10.73	\$16.69	\$5.96	\$5.36	\$16.69	\$11.32

Tennessee						
	Existing Minimum Wage Schedule (no state law)	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Texas						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Utah						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Vermont	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$10.78	\$10.78	\$0.00	\$5.39	\$5.39	\$0.00
2020	\$10.96	\$10.96	\$0.00	\$5.48	\$5.48	\$0.00
2021	\$11.14	\$11.15	\$0.00	\$5.57	\$6.09	\$0.51
2022	\$11.32	\$11.89	\$0.56	\$5.66	\$7.35	\$1.69
2023	\$11.51	\$13.10	\$1.59	\$5.76	\$8.85	\$3.09
2024	\$11.70	\$14.38	\$2.67	\$5.85	\$10.35	\$4.50
2025	\$11.90	\$15.18	\$3.28	\$5.95	\$11.85	\$5.90
2026	\$12.09	\$15.54	\$3.45	\$6.05	\$13.35	\$7.30
2027	\$12.30	\$15.92	\$3.62	\$6.15	\$14.85	\$8.70
2028	\$12.50	\$16.30	\$3.80	\$6.25	\$16.05	\$9.80
2029	\$12.71	\$16.69	\$3.98	\$6.35	\$16.69	\$10.33

Virginia						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Washington	COLA:	1.7%				
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$12.00	\$12.00	\$0.00	\$12.00	\$12.00	\$0.00
2020	\$13.50	\$13.50	\$0.00	\$13.50	\$13.50	\$0.00
2021	\$13.72	\$13.72	\$0.00	\$13.72	\$13.72	\$0.00
2022	\$13.95	\$13.95	\$0.00	\$13.95	\$13.95	\$0.00
2023	\$14.18	\$14.18	\$0.00	\$14.18	\$14.18	\$0.00
2024	\$14.42	\$14.71	\$0.29	\$14.42	\$14.42	\$0.00
2025	\$14.66	\$15.18	\$0.52	\$14.66	\$14.66	\$0.00
2026	\$14.90	\$15.54	\$0.64	\$14.90	\$14.90	\$0.00
2027	\$15.15	\$15.92	\$0.77	\$15.15	\$15.37	\$0.23
2028	\$15.40	\$16.30	\$0.90	\$15.40	\$16.05	\$0.65
2029	\$15.65	\$16.69	\$1.04	\$15.65	\$16.69	\$1.04

West Virginia						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$8.75	\$8.75	\$0.00	\$2.63	\$3.11	\$0.49
2020	\$8.75	\$9.30	\$0.55	\$2.63	\$4.35	\$1.73
2021	\$8.75	\$10.50	\$1.75	\$2.63	\$5.85	\$3.23
2022	\$8.75	\$11.80	\$3.05	\$2.63	\$7.35	\$4.73
2023	\$8.75	\$13.10	\$4.35	\$2.63	\$8.85	\$6.23
2024	\$8.75	\$14.38	\$5.63	\$2.63	\$10.35	\$7.73
2025	\$8.75	\$15.18	\$6.43	\$2.63	\$11.85	\$9.23
2026	\$8.75	\$15.54	\$6.79	\$2.63	\$13.35	\$10.73
2027	\$8.75	\$15.92	\$7.17	\$2.63	\$14.85	\$12.23
2028	\$8.75	\$16.30	\$7.55	\$2.63	\$16.05	\$13.43
2029	\$8.75	\$16.69	\$7.94	\$2.63	\$16.69	\$14.06

Wisconsin						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.33	\$2.97	\$0.64
2020	\$7.25	\$9.20	\$1.95	\$2.33	\$4.35	\$2.02
2021	\$7.25	\$10.50	\$3.25	\$2.33	\$5.85	\$3.52
2022	\$7.25	\$11.80	\$4.55	\$2.33	\$7.35	\$5.02
2023	\$7.25	\$13.10	\$5.85	\$2.33	\$8.85	\$6.52
2024	\$7.25	\$14.38	\$7.13	\$2.33	\$10.35	\$8.02
2025	\$7.25	\$15.18	\$7.93	\$2.33	\$11.85	\$9.52
2026	\$7.25	\$15.54	\$8.29	\$2.33	\$13.35	\$11.02
2027	\$7.25	\$15.92	\$8.67	\$2.33	\$14.85	\$12.52
2028	\$7.25	\$16.30	\$9.05	\$2.33	\$16.05	\$13.72
2029	\$7.25	\$16.69	\$9.44	\$2.33	\$16.69	\$14.36

Wyoming						
	Existing Minimum Wage Schedule	Proposed \$15/hr Minimum Wage Schedule	Wage Difference Between Proposed \$15 Schedule and Baseline	Existing Cash Wage Schedule	Proposed Cash Wage Schedule	Cash Wage Differential
2019	\$7.25	\$7.90	\$0.65	\$2.13	\$2.87	\$0.74
2020	\$7.25	\$9.20	\$1.95	\$2.13	\$4.35	\$2.22
2021	\$7.25	\$10.50	\$3.25	\$2.13	\$5.85	\$3.72
2022	\$7.25	\$11.80	\$4.55	\$2.13	\$7.35	\$5.22
2023	\$7.25	\$13.10	\$5.85	\$2.13	\$8.85	\$6.72
2024	\$7.25	\$14.38	\$7.13	\$2.13	\$10.35	\$8.22
2025	\$7.25	\$15.18	\$7.93	\$2.13	\$11.85	\$9.72
2026	\$7.25	\$15.54	\$8.29	\$2.13	\$13.35	\$11.22
2027	\$7.25	\$15.92	\$8.67	\$2.13	\$14.85	\$12.72
2028	\$7.25	\$16.30	\$9.05	\$2.13	\$16.05	\$13.92
2029	\$7.25	\$16.69	\$9.44	\$2.13	\$16.69	\$14.56

Appendix B: Remarks Concerning Alleged Counterfactual Evidence Regarding Minimum Wage Effects on Employment

Research on the economic effects of minimum wage policy consists of a rich literature spanning decades. This body of literature includes studies whose results contradict the basic economic principle of the law of demand, suggesting that increases in the minimum wage have no impact on low-wage employment and may even have a modest positive effect. This section discusses two popular studies within this counterfactual literature and notes certain methodological problems which introduce uncertainty with respect to their findings.

A controversial and well-cited study on the minimum wage dating from the mid-1990s is Card and Krueger's investigation of the impact of the April 1, 1992 increase in the New Jersey minimum wage from \$4.25 to \$5.05 per hour.¹⁹ Card and Krueger used a telephone survey to compare the experiences of 410 fast-food restaurants in New Jersey and Pennsylvania—331 in New Jersey and 79 in eastern Pennsylvania—following the increase in New Jersey's minimum wage. The Pennsylvania restaurants included in the survey served as a control group with which New Jersey restaurants (and their experiences) could be compared since, in the authors' opinions, "New Jersey is a relatively small state with an economy that is closely linked to nearby states" and no contemporary increase in Pennsylvania's minimum wage occurred during the time period studied. In summarizing their findings, the authors claim to have found "no evidence that the rise in New Jersey's minimum wage reduced employment at fast-food restaurants in the state." Contrary to conventional wisdom, the authors even found "that the increase in the minimum wage increased employment." In a follow-up study using different data (from the Bureau of Labor Statistics), the authors moderated their conclusion to the following: "The increase in New Jersey's minimum wage probably had no effect on total employment in New Jersey's fast-food industry, and possibly had a small positive effect."²⁰

The motivation for Card and Krueger's follow-up study stems from criticism of the methodology employed in the authors' first study. In particular, concerns about noisy measurement, the unit of measure investigated (critics claimed that the study's focus should have been the number of hours worked by employees, not the number of employees itself), and inconsistencies between Card and Krueger's data set and actual payroll data from fast-food establishments in New Jersey and Pennsylvania incentivized the authors to perform subsequent research. These points aside, other criticisms can be made about Card and Krueger's analysis. First, the authors focused on a relatively small geographic area. Second, the authors focused on fast-food *chains*, which are not the same as the fast-food *industry*, which is comprised of both chains and an independent sector. The independent sector has been observed to be "much more labour intensive than the chain sector."²¹ This being the case, it is entirely possible for the chain sector of the fast-food industry to experience negligible effects due to a minimum wage increase, while

¹⁹ Card, David and Alan B. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *The American Economic Review*, Vol. 84, No. 4, Sept. 1994, pp. 772-793.

²⁰ Card, David and Alan B. Krueger, "Minimum Wage and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply," *The American Economic Review*, Vol. 90, No. 5, Dec. 2000, pp. 1397-1420.

²¹ Worstall, Tim, "Alan Krueger's Mistake on the Minimum Wage", *Forbes*, Aug. 31, 2011.

the more labor-intensive independent sector (and the industry as a whole) experiences material negative employment effects due to the minimum wage increase. Third, by focusing on the fast-food industry, Card and Kruger leave out a significant subpopulation of the minimum wage workforce (employed outside of the fast-food industry). Fourth, the New Jersey minimum wage became effective two years after the legislation was passed. It is possible, and perhaps even likely, that some of the reaction among employer firms to the legislation occurred before the new minimum wage came into effect. To the extent that the examined time period excluded some employer's reactions to the minimum wage increase, the change in employment measured by Card and Kruger may be biased upward. Fifth, Card and Kruger focused on nationally-known fast-food enterprises rather than a representative sample of all eating establishments. Such a focus could bias results upward, as national chain restaurants may be better able to absorb wage increases than eating establishments in general. If such is the case, national chain restaurants may even gain market share and expand even as the industry as a whole loses employment.

The second study of some popularity which presents counterfactual evidence on the employment effects of minimum wage policy is much more recent. An article by Allegretto, Dube, and Reich (hereby ADR) published in 2011 asserts that minimum wage increases between 1990 and 2009 had essentially zero impact on teen employment (the authors rule out "any but very small disemployment effects").²² Their results were obtained using a methodology that accounted for the (according to the authors) prior-to-then ignored "heterogeneous employment patterns that are correlated with selectivity among states with minimum wages." By including control variables for "long-term growth differences among states and for heterogeneous economic shocks," the authors achieve elasticities for employment and hours worked "indistinguishable from zero."

While the approach used by ADR holds some intuitive appeal, a thorough examination of the authors' methodology by Neumark, Salas, and Wascher (hereby NSW) "points to serious problems with [their] research designs."²³ NSW's analysis provides evidence that the tendency for including state-specific time trends into the baseline fixed-effects regression model typically used for minimum wage analysis to eliminate negative employment effects of minimum wages (during the time period studied) is due principally to the strong influence of the recessionary periods of the early 1990s or the Great Recession period. NSW show that when long-term trends are estimated in ways that are not highly sensitive to the business cycle, the estimated effects of minimum wages on teen employment are negative and statistically significant. NSW also address the second methodological technique used by ADR to obtain their counterfactual results, namely, the inclusion of a (Census Division x Period Interaction) term into the regression model. A justification for the inclusion of this term is that omitted factors could drive patterns of teen employment differentially by Census division, and therefore this term should be included to capture those effects. Underlying this approach is the assumption that states within a Census

²² Allegretto, Sylvia A., Arindrajit Dube, and Michael Reich, "Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data," *Industrial Relations*, Vol. 50, No. 2, Apr. 2011, pp. 205-240.

²³ Neumark, David, J.M. Ian Salas, and William Wascher, "Revisiting the Minimum Wage-Employment Debate: Throwing Out the Baby with the Bathwater?", Discussion Paper No. 7166, IZA, January 2013.

division make better controls for states where minimum wages increase than are states in other Census divisions. NSW investigate this claim by utilizing two ranking algorithms to assess whether within-Census-division states truly do make for better controls.²⁴ The two algorithms include a synthetic control approach and a “ranked prediction error” approach. Both algorithms provide evidence which generally question the rationale for restricting control states to those in the same Census division. In light of these results, NSW conclude that “the evidence still shows that minimum wages pose a tradeoff of higher wages for some against job losses for others.”

Other recent research investigating the impact of minimum wage increases in Seattle and San Francisco on labor market conditions and business dynamics reinforces NSW’s conclusion that minimum wage increases do indeed result in job losses for at least part of the workforce. For example, researchers at the University of Washington analyzed the impact of recent minimum wage increases in Seattle from \$9.37 per hour to as high as \$13.00 per hour. The researchers found that while the minimum wage hikes led to higher wages for workers with above-median experience, no wage increases were found among the less skilled. Furthermore, the researchers found that these wage increases came at the cost of a significant reduction in the rate of new entries into the workforce.²⁵ Additionally, researchers at Harvard Business School examined the effect of recent increases in the minimum wage in San Francisco and found that minimum wage increases raised the likelihood of firm exits, an outcome that constitutes not only lost jobs but also shuttered businesses.²⁶

²⁴ The structures of the algorithms are non-trivial and details surrounding them are omitted from this report. Readers interested in learning more about the algorithms should refer to Neumark et al. noted in footnote 23.

²⁵ Jardim, Ekaterina et al, “Minimum Wage Increases and Individual Employment Trajectories,” NBER Working Paper 25182, 2018.

²⁶ Luca, Dara Lee and Michael Luca, “Survival of the Fittest: The Impact of the Minimum Wage on Firm Exit,” Harvard Business School, Working Paper 17-088, 2017.