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April 5, 2021

Dear Interested Readers:

Discussion around the minimum wage required by either the state or federal government to be paid to hourly workers has long proven to be a highly polarizing issue. Recognizing the importance of well-informed policy decisions made around minimum compensation, New Hampshire Employment Security through the Economic and Labor Market Information bureau, decided to analyze the numerous issues potentially impacted by making changes in this area. The status quo also needs analysis to fully understand the pros and cons of allowing market forces to dictate compensation levels based upon supply and demand.

The breadth and depth of potential impacts caused by changes to government mandated minimum compensation levels go beyond the wages paid to hourly workers. As employee compensation is such a significant component of business operating costs, the space for absorbing increases is limited. Impacts vary based upon employer size; employment sector; and geographic location, to name just a few of the many variables. The hope is that the more information made available to help inform this debate, then the better the final policy decisions will be for the New Hampshire economy.

As this report attempts to point out, there are strong arguments to be made both for and against making increases to government mandated compensation. As the New Hampshire economy continues to recover from the disruptions caused by the global pandemic, we want to continue to help inform the development of economic policy in order to best position the Granite State for continued success in the region and country.

Thank you for taking the time to read this analysis and for your work in helping to shape this debate.

Sincerely,

George N. Copadis  
Commissioner

Richard J. Lavers  
Deputy Commissioner

Brian Gottlob  
ELMI Director

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**The Impact on the  
New Hampshire Economy of a  
Federally Mandated \$15.00  
Minimum Wage**

**April 2021**

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## **Executive Summary**

This report analyzes the potential economic impacts in New Hampshire of increasing the federal minimum wage from the current \$7.25 to \$15.00 over a number of years. Using employment, occupational, wage, and industry data for New Hampshire, the report estimates the dollar amount of wage cost increases that a higher federally mandated minimum wage will require of the New Hampshire economy and from specific industries. The wage cost impacts of an increased minimum wage are run through a sophisticated econometric model of the New Hampshire economy to forecast impacts on the state's economy, employment, income, population, labor force, and prices, as well as impacts on specific industries that are most affected by a minimum wage increase. In addition, distributional impacts (on industries, individuals, and regions) are estimated, and potential impacts of a minimum wage on non-cash compensation of workers and working conditions are discussed.

Results from this analysis indicate that a federally mandated minimum wage would increase wage costs in New Hampshire by \$1.08 billion dollars over 2019 wage costs, representing a 3.1 percent overall increase in wage costs economy wide. Nearly one-third of the wage cost increase (\$310.5 million) will be borne by leisure and hospitality industries in the state who will experience an 18.6 percent increase in wage costs, including a 20 percent increase in the food services and drinking places industry. Even with an estimated 20 percent of increased wage costs offset by increases in productivity and lower turnover, results indicate that by 2031, employment will be 5,847 lower than if the minimum wage had not been raised to \$15.00. Although some industries see modest employment gains, overall, employer's adjustment to higher labor costs by reducing employment outweighs the effects from an increase in consumer spending resulting from higher incomes.

### **Other Key Findings Include:**

- New Hampshire's gross domestic product will be more than \$800 million lower by 2031 than it would have been without a \$15.00 minimum wage.
- The state's population will be 9,630 lower and its labor force will include 6,023 fewer individuals in response to a \$15.00 minimum wage and the resulting diminished employment opportunities in the state.
- Increases in personal income over the baseline forecast will peak at \$873 million in the year the minimum wage reaches \$15.00 but will decline in subsequent years in response to employment losses. The increase in personal income will, however, remain positive, and be \$228 million above baseline forecast by 2031.
- Workers in the lowest wage categories will see the largest increases in income but also experience the highest number of job losses in response to a \$15.00 minimum wage.
- Industries such as food services and drinking places, and other leisure and hospitality industries, as well as retail trade, are forecast to experience the largest job losses. These reductions in employment offset much of the benefits of increased wages for low-wage workers in those industries.

- Aggregate price levels will increase by less than one percent across the New Hampshire economy in response to the \$15.00 minimum wage, but specific industries most affected by the increase, such as the food services and drinking places industry (+7.0%), and the retail industry (+3.4%) will see substantial price increases.
- Research increasingly indicates that minimum wage hikes result in employers seeking to mitigate some of the effects of wage cost increases by adjusting non-cash compensation such as healthcare benefits, worker schedules, and workplace conditions and amenities.

For this analysis, the \$15.00 minimum wage was modeled as an increase to \$9.50 in 2022, increasing to \$12.00 in 2024, and reaching \$15.00 in 2026. The impact of these increases on key economic variables in the state is presented in the table below.

<b>Economic Impacts of a Stepped Increase in the Federal Minimum Wage to \$15.000</b>											
<b>Category</b>	<b>Units</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
<b>Total Employment</b>	<b>Thousands (Jobs)</b>	-0.203	-0.505	-0.853	-1.443	-1.838	-3.029	-4.052	-4.876	-5.461	-5.847
<b>Private Non-Farm Employment</b>	<b>Thousands (Jobs)</b>	-0.186	-0.468	-0.779	-1.329	-1.655	-2.767	-3.714	-4.471	-5.001	-5.346
<b>Population</b>	<b>Thousands</b>	-0.323	-0.646	-1.369	-2.074	-3.568	-5.028	-6.388	-7.625	-8.709	-9.630
<b>Labor Force</b>	<b>Thousands</b>	-0.253	-0.460	-0.971	-1.410	-2.472	-3.369	-4.188	-4.907	-5.523	-6.023
<b>Gross Domestic Product</b>	<b>Billions of Fixed 2020 Dollars</b>	-0.030	-0.065	-0.119	-0.190	-0.276	-0.426	-0.556	-0.664	-0.746	-0.806
<b>Personal Income</b>	<b>Billions of Current Dollars</b>	0.137	0.105	0.328	0.258	0.873	0.721	0.574	0.438	0.324	0.228
<b>Disposable Personal Income</b>	<b>Billions of Current Dollars</b>	0.101	0.077	0.241	0.188	0.635	0.518	0.409	0.308	0.223	0.152
<b>Real Disposable Personal Income</b>	<b>Billions of Fixed (2012) Dollars</b>	0.010	-0.007	0.019	-0.019	0.088	0.005	-0.067	-0.131	-0.181	-0.220

## I. Introduction

Debates among economists over the economic effects of the minimum wage have been highly contentious, with the impacts of a minimum wage on employment the most contentious. There has been a wide range of employment impact estimates from an increase in the minimum wage and there is no single, accepted answer to the question, “what is the effect of the minimum wage on employment?” Brown, Gilroy and Kohen (1982)<sup>1</sup> established an often cited consensus range for elasticity of employment with respect to the minimum wage from -0.3 to -0.1.<sup>2</sup>

More recent work by Belman and Wolfson (2016) suggests a smaller and narrower range of employment effects from raising the minimum wage, depending on the group under study.<sup>3</sup> Their meta-analysis of high-quality studies since 2000 indicate that the range of employment impacts from a minimum wage hike has weakened since Brown, Gilroy and Kohen’s work, to between -0.12 and -0.05, with a slightly narrower range of estimates for subgroups. For example, elasticity estimates for teenage employment range from -0.08 to -0.11 and those for retail workers from -0.08 to -0.10. A 2007 study by the Federal Reserve Bank of Boston’s “New England Public Policy Center” forecast job losses in New Hampshire from an increase in the then federal minimum wage from \$5.15, to its current \$7.25, to be a loss of between 300 and 1,500 jobs.<sup>4</sup>

In a competitive labor market, and in the absence of a minimum wage, wages will adjust to balance supply and demand for labor. That is, wages will adjust to a level such that the willingness of the marginal or last worker to supply labor equals the value of that worker’s output to a firm. A binding minimum wage floor breaks this equilibrium. An increase in the wage floor increases the quantity of labor supplied while decreasing the quantity demanded. The higher the wage floor, the greater the potential for supply and demand to be out of balance. A minimum wage set above the marginal product of labor constrains demand for labor causing employment to decline and implying higher unemployment.

Increasing the minimum wage will affect both workers and businesses. It can result in higher production costs that lead to higher prices, reduced sales or increased automation which will negatively affect employment and output. On the other side, better-paid workers can be more productive and will earn higher incomes, which will positively affect the economy by increasing consumer spending. Almost all research on the minimum wage employs classical labor supply and demand models that assume wages completely determine market equilibrium. There has been little research in the U.S. on the effects of minimum wage hikes on employee benefits, working conditions, and non-cash compensation aspects of employment that can affect an individual’s willingness to supply labor, or their overall well-being in the aftermath of a minimum wage hike.

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<sup>1</sup> Brown, C., Gilroy, C. and Kohen, A, “The Effect of the Minimum Wage on Employment and Unemployment.” *Journal of Economic Literature* 20(2): 487–528, 1982.

<sup>2</sup> Elasticity is the measurement of the percentage change of one economic variable in response to a change in another.

<sup>3</sup> Wolfson, P. and Belman, D. “15 Years of Research on US Employment and the Minimum Wage.” *Labor*, 33: 488-506, 2019.

<sup>4</sup> Owens, Antoniya, “The Potential Economic Impact of Increasing the Minimum Wage in New Hampshire,” Federal Reserve Bank of Boston, New England Public Policy Center Discussion Paper 07-2, 2007.

The net effects on employment and other economic variables in New Hampshire of a \$15.00 federal minimum wage are estimated in this report. The report estimates the impacts on employment, population, labor force, income, and the state's gross state product between 2022 and 2031 in New Hampshire, of a stepped increase in the minimum wage beginning in 2022, to \$15.00 by 2026. The report highlights impacts of the minimum wage hike on industries most affected, estimates some income and employment distributional impacts to individuals in different income quintiles, and highlights potential price impacts of a wage hike on industries most affected by the minimum wage. Although not quantified, this report also considers potential non-cash compensation and workplace amenity impacts of increasing the minimum wage to \$15.00 that may affect the overall well-being of workers after a minimum wage increase.

## **II. Data and Methods**

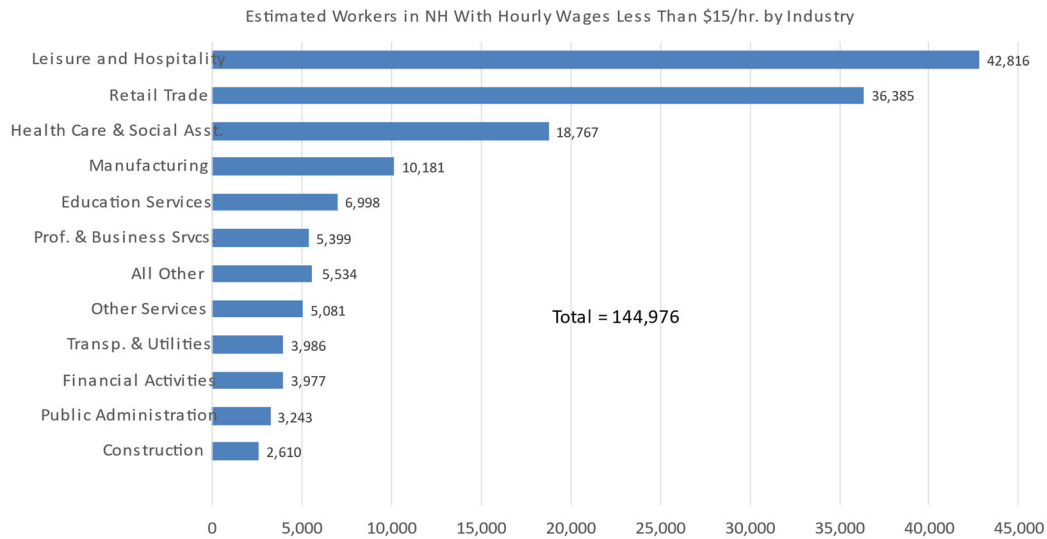
Data from the "U.S. Bureau of Labor Statistics/U.S. Bureau of the Census joint *Current Population Survey*" (CPS - the survey used to calculate labor force and unemployment rates) were used to estimate the number of paid hourly workers in New Hampshire, by occupation, and earning less than \$15 per hour. Because of the distortions in the labor market in 2020 due to the pandemic, data from 2019 were used in this analysis.

For each occupation, workers paid hourly were put into wage categories as follows: 1) Under \$7.25, 2) \$7.25, 3) \$7.26 to \$7.99, 4) \$8.00 to \$9.99, 5) \$10.00 to \$11.99, 6) \$12.00 to \$14.99, 7) \$15.00 and above. Industry occupational matrices were applied to 2019 levels of employment by industry in New Hampshire, along with wage data by occupation, to populate both the occupational composition and wage distribution of employment for each industry studied in detail, and for total employment in the state.

Using 12 months of CPS data, Figure 1 shows the estimated number of hourly workers earning less than \$15 per hour, by industry, in New Hampshire during 2019. Workers paid hourly represent 58 percent of workers in New Hampshire. No attempt was made to estimate the number of workers or the impacts of a minimum wage hike of salaried workers with annual salaries that calculate to less than \$15.00 per hour. To the extent that the number of salaried workers earn the equivalent of less than \$15.00 per hour, and would be affected by a minimum wage increase, the results here will understate actual impacts of a \$15.00 minimum wage. Leisure and hospitality industries (42,816), led by the food services and drinking places industry (34,768), employ the largest number of hourly paid workers in New Hampshire earning less than \$15.00 per hour. The retail industry employs another 36,385 workers below \$15.00 per hour, followed by health care and social assistance industries (18,767), which includes residential care and nursing facilities, as well as the child care industry.



Figure 1  
**A Few Industries in New Hampshire Account for the Vast Majority of Paid Hourly Workers Making Less Than \$15 per Hour**



For this report we performed detailed analyses of the impacts on industries employing the most workers earning less than \$15.00 per hour, and that collectively employ 81 percent of the hourly paid workers in New Hampshire earning under \$15.00 per hour. Our analysis of the impacts of an increase in the minimum wage on the overall New Hampshire economy uses those detailed estimates along with less detailed estimates (aggregated industries) of the impacts associated with the remaining 19 percent of workers earning under \$15.00 per hour in the state.

**A. Estimating the Dollar Amount Required to Reach New Minimums**

For this analysis we increased the minimum wage in three steps over a six-year period.<sup>5</sup> The first increase in the minimum wage would be to \$9.50 and occur in 2022. The second would raise the minimum to \$12.00 and occur in 2024. The final increase to \$15.00 would occur in 2026 and remain for a forecast period lasting until 2031. CPS wage data does not account for the tipped earnings of workers. Most tipped workers paid less than \$7.25 per hour are in the food services and drinking places industry (an estimated 6,203 workers). Tipped workers earning less than \$7.25 per hour were all placed in the \$7.25 per hour earning category for this analysis (none were assumed to earn less than the current federal minimum wage).

Accurately assessing the impacts of minimum wage increases on the New Hampshire Economy and its industries requires detailed data on the occupational and wage structure of workers in each industry. Populating each industry studied with its occupational makeup using the appropriate industry’s occupational matrix from the “Occupational Employment Statistics” program, along with New Hampshire occupational wage data from the CPS, provides the detailed employment and wage data required to estimate the cost to individual industries, and New Hampshire employers overall, of raising the minimum wage.

<sup>5</sup>This schedule was chosen in recognition that any proposal would raise the minimum over a period of years. Three steps were chosen to reduce data and analysis requirements.

<b>Table 1 Average Hours Worked by Industry 2017-19 Average</b>		
<b>Industry</b>	<b>Weekly</b>	<b>Annual</b>
Construction	39.3	2,044
Manufacturing	40.7	2,116
Wholesale	39	2,028
Retail	30.8	1,602
Transportation & Warehousing	38.7	2,012
Information	36.2	1,882
Financial Services	37.6	1,955
Real Estate	34.9	1,815
Bus. Services	36.2	1,882
Professional & Technical Services	37.2	1,934
Healthcare and Social Assistance	33.1	1,721
Food Services & Drinking Places	25.6	1,331
Accommodations	30.7	1,596

For each wage category under the new minimum wage (\$9.50, \$12.00, and \$15.00) the difference between the new minimum wage and wage categories beneath that wage was calculated. Except for workers in the \$7.25 per hour wage category, workers in all wage categories were assumed to be at the midpoint or median of each category's hourly wage range (i.e. all workers in the \$8.00 to \$9.99 category were assumed to be earning \$9.00). To calculate the "wage gap," or the cost to each industry studied to meet the new minimum wage, the dollar difference between the new minimum wage rate and the wage rate in each wage category falling under the minimum was multiplied by the number of workers in each under-minimum wage category, and then by the average weekly hours worked in an industry (Table 1), to get an aggregate weekly cost for each industry to meet the new minimum.<sup>6</sup>

Finally, the aggregate weekly cost to industries was multiplied by 52 to estimate the annual cost to each industry of the new minimum wage. Table 2 presents the estimated annual cost to New Hampshire employers, and to the six industries that collectively employ 81 percent of the hourly paid individuals in New Hampshire earning less than \$15.00 per hour, to comply with three higher minimum wage levels. The table also presents the percentage increase in wage costs that each new minimum represents over the actual wages paid by the industry in 2019. The table shows that at full implementation of a \$15.00 minimum wage, the cost to employers would be over \$1 billion, with nearly one-quarter of that (\$224 million) borne by the food services and drinking places industry. Overall, the minimum wage hike would increase private sector wage costs by 3.1 percent over their 2019 wage costs, but the range of increases is dramatic, with the combined leisure and hospitality industry seeing an 18.6 percent increase, including 20.1 percent in the food services and drinking places industry, while manufacturing experiences just a 1.4 percent increase.

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<sup>6</sup> Average weekly hours worked is available for aggregated private sector industries in New Hampshire. To get industry specific averages the national average for each industry was used.

**Table 2**  
**Wage Costs to New Hampshire Industries of an Increase in the Minimum Wage**

	Accommodations	Food Services & Drinking Places	Educational Services	Health Care & Social Assistance	Leisure & Hospitality <sup>1</sup>	Manufacturing	Retail	All Industry Total <sup>2</sup>
<b>Industry Cost at \$9.50 Minimum</b>	\$4,180,686	\$24,628,772	\$5,327,145	\$13,813,893	\$66,152,888	\$4,169,422	\$18,626,298	\$152,875,144
<b>% Increase Over 2019 Wages</b>	1.6%	2.2%	0.5%	0.3%	4.0%	0.1%	0.6%	0.4%
<b>Industry Cost at \$12.00 Minimum</b>	\$11,334,479	\$93,575,291	\$16,098,990	\$41,124,955	\$149,397,981	\$17,514,458	\$74,472,337	\$412,511,274
<b>% Increase Over 2019 Wages</b>	4.5%	8.4%	1.4%	0.7%	9.0%	0.3%	2.3%	1.2%
<b>Industry Cost at \$15.00 Minimum</b>	<b>\$27,396,509</b>	<b>\$223,577,487</b>	<b>\$45,634,567</b>	<b>\$120,162,950</b>	<b>\$310,511,186</b>	<b>\$71,437,048</b>	<b>\$228,571,670</b>	<b>\$1,080,893,738</b>
<b>% Increase Over 2019 Wages</b>	<b>10.8%</b>	<b>20.1%</b>	<b>3.9%</b>	<b>2.2%</b>	<b>18.6%</b>	<b>1.4%</b>	<b>7.2%</b>	<b>3.1%</b>

<sup>1</sup> The leisure and hospitality industry includes the accommodations and food services industries also included in the table and adds recreation industries. This industry includes the NAICS codes 71 and 72.

<sup>2</sup> The all industry total includes wage costs of industries not included in the table

### **Smaller Increases in the Minimum Wage Have More Limited Impacts**

Table 2 shows that, at a \$15.00 minimum wage, the impact on industry costs is dramatic for the industries that employ the most workers below \$15.00 per hour and closest to the current \$7.25 minimum. At a more modest increase, to \$9.50, even industries that employ the most lower-wage workers experience much more limited wage cost impacts. The 2.2 percent increase in wage costs to the food services and drinking places industry resulting from a \$9.50 minimum is not inconsequential, but as documented later in this report, has significantly smaller negative economic impacts on the industry and overall New Hampshire economy than does a larger increase in the minimum wage. A majority of industries would see less than a one percent increase in their wage costs at a new, \$9.50 minimum.

An increase to a \$12.00 minimum wage has a substantially greater impact on wage costs of industries employing the majority of workers at or near the current minimum wage, and the ability of these industries to accommodate the increase without significant impacts on employment levels, prices, profitability, or non-cash compensation becomes more difficult.

The differential impacts of a minimum wage increase by size of business is also important to consider. Larger business are more likely to pay wages closer to or above a \$15.00 minimum and are less likely to be affected by smaller increases in the minimum. In addition, they are generally better able to financially absorb or reduce other costs to mitigate some of the effects of a minimum wage increase. Impacts by business size are not examined in this study but research nationally indicates that the impacts of a minimum wage hike will fall disproportionately on smaller businesses.<sup>7</sup>

<sup>7</sup> Chow, Michael, Bettencourt, Paul, “Economic Effects of Enacting the Raise the Wage Act on Small Businesses and the U.S. Economy,” NFIB Research Center, January, 2019.

### III. Economic Impacts

The wage impacts from an increase in the federal minimum wage presented in Table 2 were run through a sophisticated economic model of the state of New Hampshire to assess broader impacts on employment, income, output, prices, and other key variables for specific industries and the overall New Hampshire economy.<sup>8</sup> The specific variables adjusted in the model were the compensation cost of labor and businesses production costs. An increase in labor costs will, in general, increase production costs (later in this report some ways employers may mitigate some of the costs of a wage increase are noted). Employers affected by the wage increase will, however, likely make adjustments to offset some of their increase in wage costs. The model calculates adjustments to employment levels to equilibrate with the new wage levels, but businesses can adjust other factors to increase productivity or lower costs, to offset some of the increase cost of wages. For this analysis we adjusted production costs to offset 20 percent of the increase in the minimum wage. By necessity,<sup>9</sup> this adjustment was made across all industries and thus the effect is likely to minimize the cost of the minimum wage on industries that employ fewer minimum wage workers and somewhat understate the overall impact of the minimum wage increases on the New Hampshire economy.

Table 3 summarizes some key impacts on the New Hampshire economy of a stepped increase in the federal minimum wage to \$9.50 in 2022, \$12.00 in 2024, and \$15.00 in 2026. Impacts represent the differences in key variables between a baseline forecast, with no change in the minimum wage, and the results when increases in labor compensation along with some offsetting reductions in production costs are entered into the model.

Category	Units	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Total Employment</b>	<b>Thousands (Jobs)</b>	-0.203	-0.505	-0.853	-1.443	-1.838	-3.029	-4.052	-4.876	-5.461	-5.847
<b>Private Non-Farm Employment</b>	<b>Thousands (Jobs)</b>	-0.186	-0.468	-0.779	-1.329	-1.655	-2.767	-3.714	-4.471	-5.001	-5.346
<b>Population</b>	<b>Thousands</b>	-0.323	-0.646	-1.369	-2.074	-3.568	-5.028	-6.388	-7.625	-8.709	-9.630
<b>Labor Force</b>	<b>Thousands</b>	-0.253	-0.460	-0.971	-1.410	-2.472	-3.369	-4.188	-4.907	-5.523	-6.023
<b>Gross Domestic Product</b>	<b>Billions of Fixed 2020 Dollars</b>	-0.030	-0.065	-0.119	-0.190	-0.276	-0.426	-0.556	-0.664	-0.746	-0.806
<b>Personal Income</b>	<b>Billions of Current Dollars</b>	0.137	0.105	0.328	0.258	0.873	0.721	0.574	0.438	0.324	0.228
<b>Disposable Personal Income</b>	<b>Billions of Current Dollars</b>	0.101	0.077	0.241	0.188	0.635	0.518	0.409	0.308	0.223	0.152
<b>Real Disposable Personal Income</b>	<b>Billions of Fixed (2012) Dollars</b>	0.010	-0.007	0.019	-0.019	0.088	0.005	-0.067	-0.131	-0.181	-0.220

<sup>8</sup> The REMI (Regional Economic Models Inc.) PI+ (policy insight) model of the New Hampshire Economy was used.

<sup>9</sup> In reality different industries will have a greater or lesser ability to offset increases in wage costs. The effects on every industry of the wage increase were not modeled separately in detail and thus offsets could not be tailored to reflect the degree to which offsets might be necessary to retain profitability.

Table 3 shows that a minimum wage increase to \$15.00 per hour would result in jobs in New Hampshire being almost 6,000 (5,847) lower in 2031 than it would have been without the minimum wage increase. Population and labor force would also be lower than in the absence of a minimum wage increase, in response to fewer employment opportunities in the state. Personal income would increase more than in the baseline forecast, but less than the mandated increase in wages due to the decline in employment. Output (GDP) would also be lower than in the baseline forecast due to lower employment levels than in the baseline forecast.

### A. Employment Impacts

Total employment is only modestly negatively affected with a minimum wage increase to \$9.50 (years 2022 and 2023) but with larger increases, employers response to higher costs kick in and employment declines (relative to the baseline forecast) more sharply. The relative impacts on population subgroups (lower wage workers, teenagers) will be more dramatic and are discussed later in this report. Figure 2 shows the trajectory of employment impacts from the increase in the minimum wage. Although overall employment impacts are negative, some industries do see increases in employment as higher wages increase overall income and personal consumption in the state. The healthcare industry is absorbing a higher percentage of consumer spending and is a notable example of an industry that sees some benefits from an increase in the minimum wage. Industries that receive consumer spending benefits higher than any negative employment benefits from a rising minimum wage will experience employment increases. The retail and foods services industries will see some benefits from increases in consumer income and spending, but far less than the negative impacts resulting from wage cost increases from having a high percentage of workers making less than \$15.00 per hour, as a result, these industries will see substantial employment declines. Figure 3 shows the employment impacts on industries most affected by the minimum wage increase, Retail (-2,051), food services and drinking places (-2,392), and accommodations (-516).

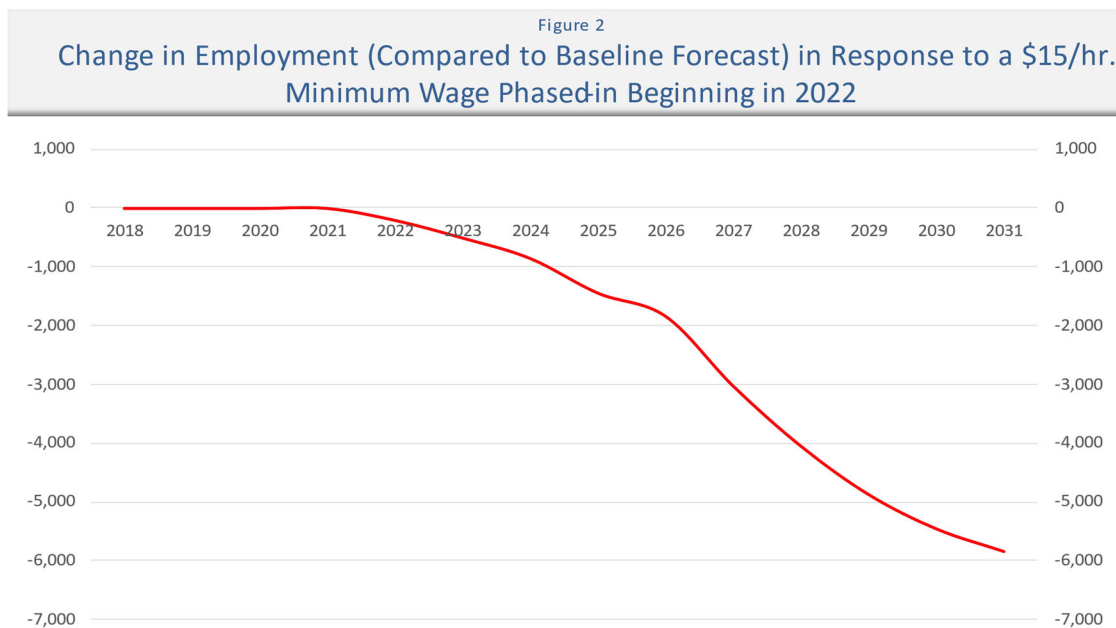
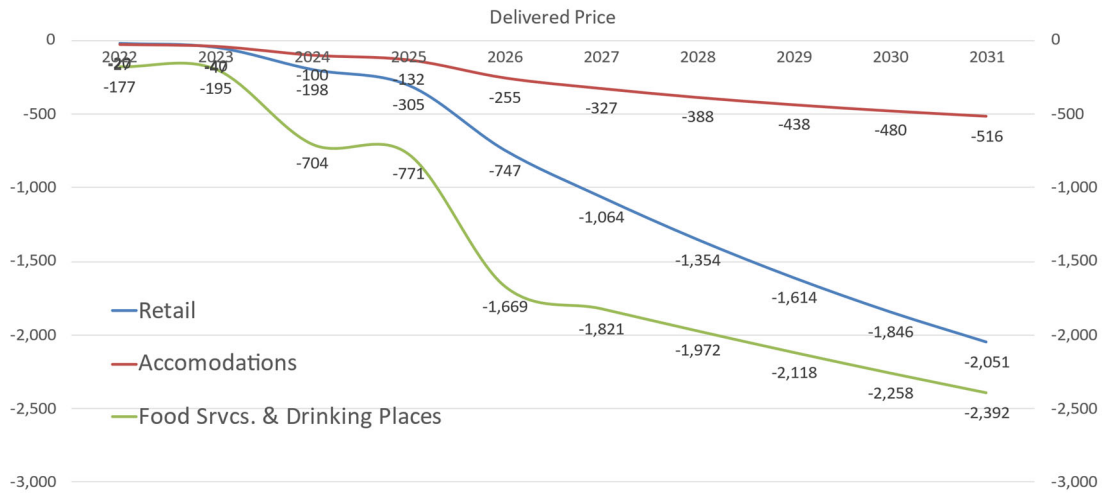


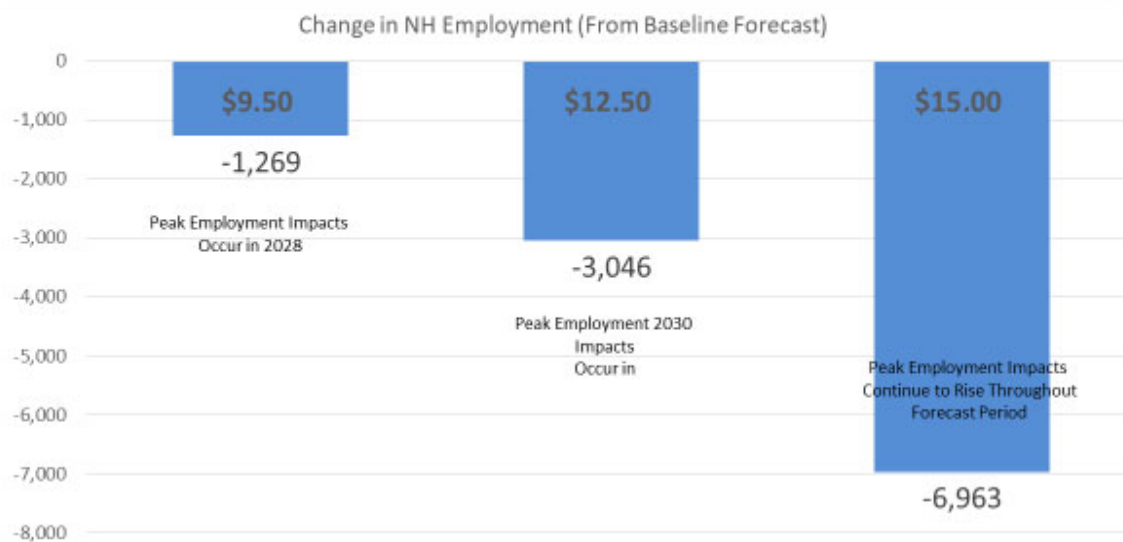
Figure 3  
 Employment Impacts on Three Industries Most Affected by a Minimum Wage Increase



**B. Employment Impacts From Smaller a Minimum Wage Increase**

A direct comparison of the employment impacts of three distinct minimum wage increases is presented in Figure 4. For this analysis, increases in the minimum wage to \$9.50, \$12.00, and \$15.00 were modeled separately, with each taking effect in January of 2022, and remaining for the entire forecast period (until 2031). Results indicate that an increase in the minimum to \$9.50 will have modest employment impacts that peak in 2028 at -1,269 jobs, compared to the baseline (no increase) forecast.

Figure 4  
 Peak Employment Impacts of Three Minimum Wage Increases  
 (If Implemented in 2022)



Negative job impacts peak in 2028, and lessen thereafter, because a \$9.50 minimum would represent a smaller increase above an equilibrium wage after 2028 than in earlier years, as wages are expected to increase annually regardless of at what level the minimum is set. Negative job impacts increase substantially at a \$12.00 minimum wage implemented in 2022 (-3,046) and at \$15.00 (-6,963).

### **C. Competitive Impacts**

The negative employment impacts documented in this report result from production cost increases associated with minimum wage increases, and not as a result of an erosion of New Hampshire's competitive position in attracting businesses. Unlike a locally mandated increase in the minimum wage, a federal mandate will limit competitive impacts on New Hampshire. More importantly, our analysis of employment and occupational wage rates by industry indicates that businesses in tradeable industries (industries that sell primarily to non-local, regional, national, and international markets), will be relatively less affected by a proposed \$15.00 minimum wage. These industries employ fewer lower-wage workers and the workers that they employ who do make less than \$15.00 per hour tend to be closer to the \$15.00 wage, meaning that the cost of wage increases to these industries from a \$15.00 minimum wage will be relatively smaller and have a smaller impact on production costs. The manufacturing industry is forecast to have an increase in production costs of 1.4 percent with an increase to a \$15.00 minimum wage. At a smaller but still substantial increase in the minimum wage of \$12.00, the impact on wage costs in the manufacturing sector is less than a one percent increase (0.3%). Not only would all states see some cost increases from the minimum wage, the manufacturing industry, unlike many service industries, has demonstrated its ability to increase productivity by rates that should allow it to offset an increase in wage costs from a minimum wage increase. Finally, because lower-wage workers in tradeable industries in the state tend to be closer to a \$15.00 minimum, there will be fewer large individual wage increases resulting from an increase in the minimum. This will limit pressures for substantial wage increases for workers currently over the \$15.00 to maintain existing wage differentials in order to avoid wage compression among workers in different occupations and with different skills, abilities, and tenures.

An exception to the competitive impacts noted above may be the retail industry in New Hampshire, especially small retailers that are already at a competitive cost disadvantage relative to large retailers and online retailers. Beyond the factors noted above, increasingly, it is the availability of labor rather than its cost that provides locations with a competitive advantage in attracting industry.

### **D. Income and Earnings Impacts**

With each increase in the minimum wage, personal income in the state increases relative to the baseline forecast, falling back closer to baseline forecast levels in subsequent years as the effects of employment declines in response to higher minimum wage increases take effect. Personal income, however, remains above baseline forecast levels throughout the forecast period, even as the benefits of the minimum wage hike erode following an increase to a \$15.00 minimum wage, as employment losses at that level accelerate. Increases in personal income over the baseline will peak at \$873 million in the year the minimum wage increases to \$15.00 (Figure 5).



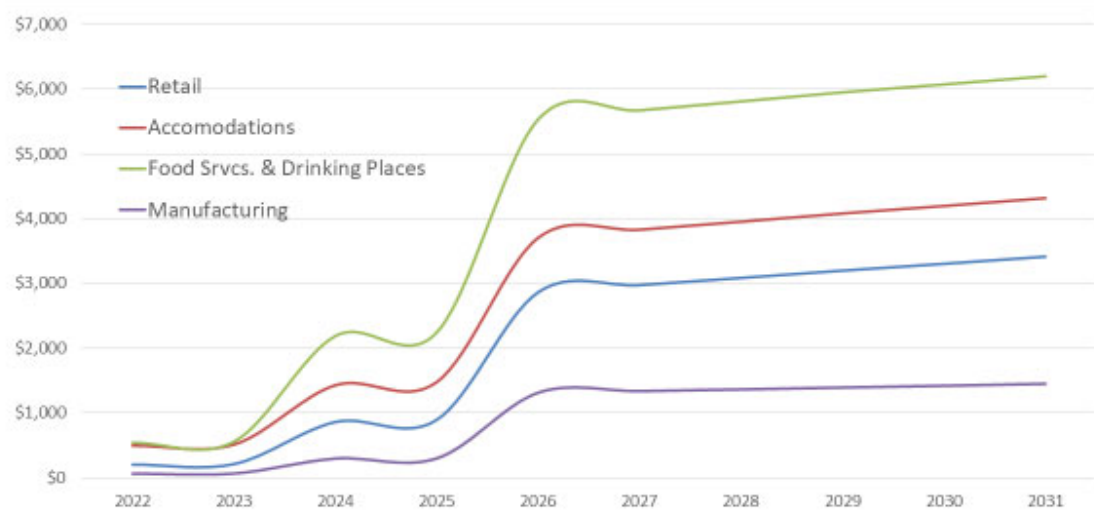
### E. Impact on Individual Workers

The impact of a \$15.00 minimum wage on lower-wage workers who begin or retain jobs is substantial and highlights a key tradeoff involved in increasing the minimum wage. For those who accept that there will be few or no job losses associated with an increase in the minimum wage, however, no tradeoff exists and no level of increase in the minimum will produce negative employment impacts. Figure 6 highlights the potential benefits, in terms of average annual wages, to workers in some industries of a stepped minimum wage increase. The amounts are not indicative of the impacts on workers only affected by the minimum wage increase, but represent the average increase in annual wages spread across all workers in the industry. For example, a worker in the food services and drinking places industry earning at the current minimum wage (\$7.25), who works the industry average of 25.6 hours per week, would see an increase of \$10,318 in their annual wages after enactment of a \$15.00 minimum wage. Because not all workers in that industry earn at that level or even below \$15.00, the average impact on annual wages per worker in that industry from a \$15.00 minimum wage is actually much less, \$6,198, for those workers who retain their jobs (Figure 6). Again, the increase in average annual wages across all workers in an industry will result from increases in the minimum wage, some of whom are working at the minimum and many who are above that but below a new \$15.00 minimum, as well as a reduction in the overall number of employees in the industry. Another potential tradeoff is highlighted by several studies that indicate less skilled, less experienced, and younger workers are more likely to lose employment in response to minimum wage hikes.<sup>10</sup>

<sup>10</sup> Clemens, Jeffrey, Wither, Michael, “The Minimum Wage and the Great Recession: Evidence of Effects on the Employment and Income Trajectories of Low-Skilled Workers.” *Journal of Public Economics* 170: 53–67, 2019. Horton, John. “Price Floors and Employer Preferences: Evidence from a Minimum Wage Experiment.” 2018. Fairris, David, Bujanda, Leon Fernandez. “The Dissipation of Minimum Wage Gains for Workers through Labor-Labor Substitution: Evidence from the Los Angeles Living Wage Ordinance.” *Southern Economic Journal* 75 (2): 473–96, 2008.



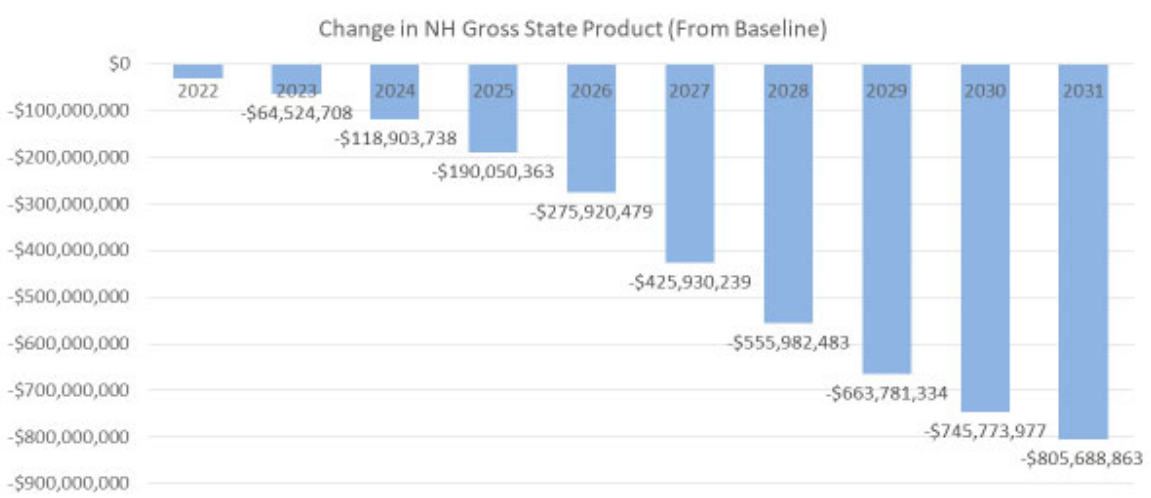
Figure 6  
**Impact of Stepped Minimum Wage Increases (\$9.50, \$12.00, \$15.00) on Average Annual Wages of Workers by Industry**



**F. Gross Domestic Product (GDP) Impacts**

Some industries in New Hampshire will increase their output in response to the increase in consumer expenditures that a higher minimum wage produces. Overall, however, the decline in employment relative to the baseline forecast (meaning absolute employment numbers are not expected to decline but are forecast to be lower than they would have been without a \$15.00 minimum wage) and associated reduction in population and labor force growth relative to baseline forecast, mean that GDP will be lower in New Hampshire as a result of a \$15.00 minimum wage than it would have been without the minimum wage increase, by approximately \$806 million dollars by the end of the forecast period in 2031 (Figure 7).

Figure 7  
**Impact of Minimum Wage Increases on New Hampshire GDP**



## **G. Price Impacts**

If demand for a firm's output is not perfectly elastic, it can raise prices while losing some, but not all, of its customers. A price increase in response to a minimum wage increase is called a pass-through: that is, the minimum wage's cost passes through the firm to its consumers. The ability to increase prices blunts some of the potential decline in employment following an increase in the minimum wage.

The overall impact on price levels of a \$15.00 minimum wage in New Hampshire does not appear large (on the order of 0.5 percent). This however, masks price increases in specific industries that may have greater or lesser effects on different subgroups and individuals at different points along the income distribution. The price impacts on any particular individual or household will depend on the percentage of their overall spending that is on goods and services more or less affected by price increases resulting from a minimum wage increase. As our analysis shows, minimum wage increases affect industries differently, and according to the number of individuals the industry employs in occupations that pay less than \$15.00 per hour, as well as how far below \$15.00 wages are. Individuals who spend a higher percentage of their income on the goods and services of industries such as retail and leisure and hospitality, will feel a greater impact than the 0.5 percent overall increase in prices. Although not large, the aggregate across all goods and services of a 0.5 percent increase in prices does erode some of the gains to individuals from a minimum wage increase, and more so for individuals who spend a greater percentage of their income on goods and services that have much higher price increases in response to the minimum wage hike.

Figure 8 highlights projected price increases in three industries that are among the most affected by a potential \$15.00 minimum wage increase. The chart shows how much higher are the delivered prices of the goods and services provided by the industry compared to baseline forecast prices. Wages and salaries average about 40 percent of the costs of the food services and drinking places industry. A 20 percent increase in wage costs partially offset by some productivity improvements, as well as the ability to raise prices or "pass through" increases in wage costs, compensate for some of the industry's wage increase and prices are forecast to increase, at peak, by about seven percent. The retail industry spends about the same percentage of costs on wages and salaries but employs a smaller percentage of its workers at wages well below \$15.00 per hour, and thus is forecast to increase prices by over three percent in response to the minimum wage increase. However, online retail increases the competitive market for retail services and reduces the ability of local retailers to increase prices in response to increases in the minimum wage. In addition, the coronavirus pandemic has accelerated the shift in retailing to online purchases. This will limit the ability of local brick and mortar retailers, especially small retailers, to "pass through" wage cost increases without further eroding profitability or their competitiveness with online as well as large national retailers.

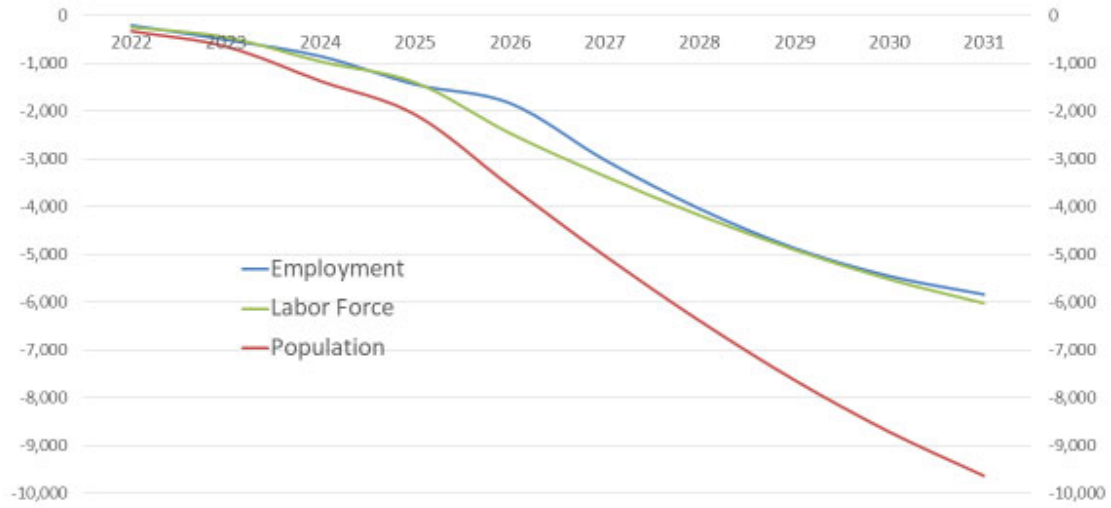
Figure 8  
**Price Impacts on Industry Goods and Services in Industries Most Affected by the Minimum Wage Increase**



## H. Population and Labor Force Impacts

Both New Hampshire’s population and labor force decline relative to the baseline forecast in response to an increase in the minimum wage, in line with employment declines and driven by the change in relative employment opportunities. Along with 5,847 fewer (than baseline forecast) jobs in the state, the state’s labor force is forecast to be 6,023 lower and the state’s population 9,630 lower by 2031 in response to a \$15.00 minimum wage fully implemented by 2026 (Figure 9).

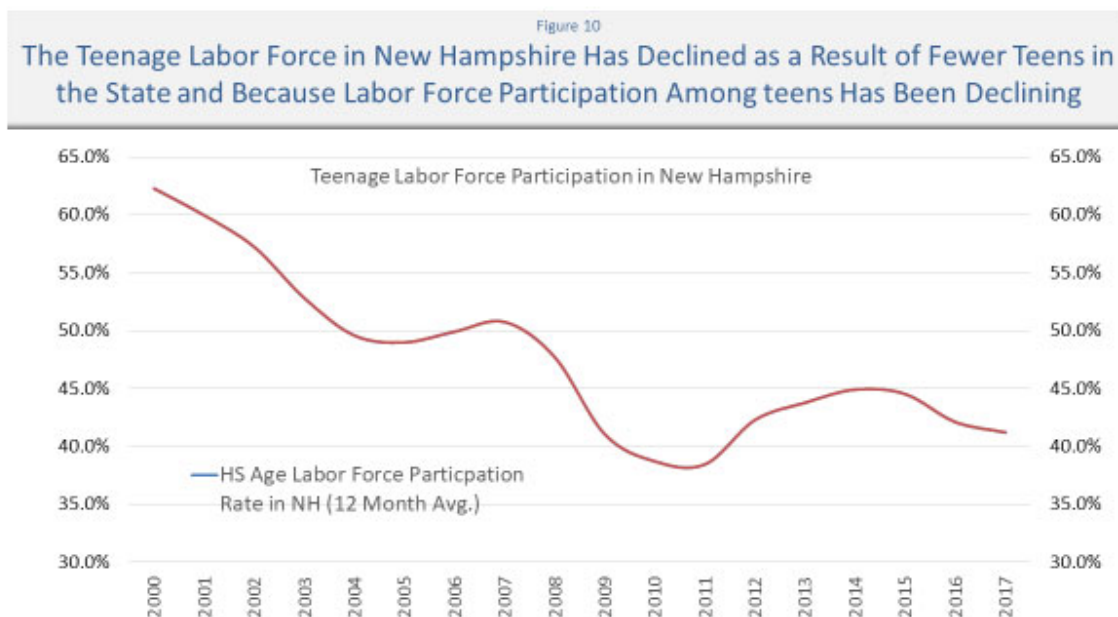
Figure 9  
**Impact of a \$15.00 Minimum Wage on Employment, Labor Force, and Population**



Labor force growth has been, and will continue to be, especially challenging for the New Hampshire economy in the coming decades, most notably in in the state’s more rural counties. In absolute numbers, labor force impacts from a minimum wage hike will be largest in in New Hampshire’s most populous counties. However, these counties also have greater population growth so any negative impacts from a minimum wage hike will reduce labor force growth from a rate already higher than in New Hampshire’s more rural, less populated counties. Any loss of population and labor force growth rates from rural counties that are more demographically and labor force challenged is especially problematic. For a number of reasons, including the fact that they are home to more small and fewer large businesses, as well as more industries and businesses employing more workers earning under \$15.00 per hour, rural counties may be more disadvantaged by a \$15.00 minimum wage, despite the fact that many who argue for such a wage hike are particularly concerned with employment opportunities and wages in these areas.

## I. Impact on Youth and the Emerging Workforce

Figure 10 illustrates a key trend in NH's youth labor force. The chart shows that labor force participation among 16–18-year-olds in New Hampshire has generally been on a downward trend, falling from over 60 percent to just over 40 percent since 2000. A related trend, not shown in the chart, is that the teenage labor force has also been declining because of a decline in the number of New Hampshire residents ages 16-18. The combination of fewer teenagers in the state's population and lower labor force participation among teenagers will be problematic for industries that employ a high percentage of teenage workers, primarily food services, recreation, and retail industries. Minimum wage increases have been shown to have their greatest negative employment impacts on teenage employment. Teenagers, comprise a high percentage of the lower-wage workers overall, as well as in industries most affected by minimum wage increases. A \$15.00 minimum wage will likely accelerate the decline in teenage and younger worker employment and labor force participation in the state.



For those who fear that a doubling of the federal minimum wage will have a larger impact on employment in New Hampshire than the nearly 6,000 estimated in this report, a major reason why the elasticity of employment with respect to wages is lower than in the past is the decline in teenage labor force participation and employment in recent decades. With the notable exception of hospitality, leisure, recreation, and retail industries, over the last 20 years the labor market has become less dependent on the youth labor force. With the labor force less dependent on the youth labor force, some of the employment impacts of higher minimum wages have been mitigated, even as industries that have relied on teenage employment have been disadvantaged.

New Hampshire has traditionally had among the highest percentage of teenage and youth under the age of 22 participating in the labor force of any state in the nation. Opportunities for work for young people help teach solid work habits at an early age and have been important in developing

New Hampshire’s reputation for having a high-quality workforce. A high minimum wage will reduce employment opportunities for youth, exacerbating trends in the decline of the youth labor force and further disadvantaging industries that are already most affected by the minimum wage hike (food services, retail, recreation) that rely on youth labor.

#### IV. Distributional Impacts on Individuals

Raising the minimum wage will lead to a decline in employment opportunities for some in New Hampshire, even as it increases the earnings for many more. The overall employment impacts of a \$15.00 minimum wage are negative in New Hampshire, but vary significantly across regions of the state and differ greatly for individuals in different industries and occupations, and at different income levels. Regional differences in impacts are attributable to a region’s industry composition, as well as the occupational and wage differences of the workforce in the region. In general, regions with a higher concentration of hospitality and retail employment will have a higher percentage of lower-wage workers and will experience proportionally larger negative employment impacts from a \$15.00 minimum wage. Table 4 shows employment impacts on occupations in different wage quintiles (lowest to highest) and by county. The Table shows that Carroll County, which has the highest percentage of its workforce in hospitality and retail industries, experiences the largest negative impacts overall, and on lower-wage workers from a \$15.00 minimum wage. Rockingham County, which has a diverse economy that includes many high-wage industries and occupations, is also forecast to experience larger negative employment effects for lower-wage workers from a \$15.00 minimum wage. That occurs because Rockingham County, like Carroll County, has a large tourism, hospitality, and retail economy that employs large numbers of lower-wage workers at risk from a substantial increase in the minimum wage. On the flip side, as Table 5 shows, Rockingham County does not see as great an increase in personal income over the baseline forecast from a \$15.00 minimum wage. This occurs because even though the county has a large number of workers in lower wage industries, the wages of those individuals are closer to a \$15.00 minimum than are the wages of individuals in other regions such as Carroll County, and thus the minimum wage hike adds less to Rockingham County wages and annual income relative to the baseline forecast. In contrast, Sullivan County, which has the lowest percentage of workers in leisure and hospitality and retail industries, experiences the smallest negative employment impacts from a \$15.00 minimum wage.

The most salient information gleaned from Table 4, however, is that the negative job impacts resulting from a minimum wage increase are concentrated in the lowest wage occupations, precisely the occupations that a minimum wage increase is designed to benefit.

Occupational Wage Rate Quintile	Belknap	Carroll	Cheshire	Coos	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
Bottom 20%	-1.15%	-2.00%	-1.40%	-1.66%	-1.49%	-1.32%	-1.02%	-1.70%	-1.18%	-1.07%
2nd Quintile	-0.26%	-0.78%	-0.46%	-0.79%	-0.58%	-0.45%	-0.26%	-0.50%	-0.26%	-0.19%
3rd Quintile	0.23%	-0.05%	-0.14%	-0.14%	-0.24%	-0.22%	0.01%	-0.29%	-0.01%	0.27%
4th Quintile	0.24%	0.03%	-0.07%	-0.05%	-0.23%	-0.18%	-0.01%	-0.19%	0.02%	0.23%
Top 20%	0.10%	-0.04%	-0.05%	-0.07%	-0.10%	-0.11%	0.03%	-0.12%	0.05%	0.16%

Table 5 further illustrates some of the tradeoffs involved in substantially raising the minimum wage. While Table 4 indicates that individuals in the lowest wage occupations are at greatest risk of job loss from a \$15.00 minimum wage, it is also true that workers in the lowest wage categories who retain their jobs will see the largest increases in compensation, precisely what a minimum wage increase is designed to do. The overall impact on compensation in each county in New Hampshire will be determined by the percentage of workers earning less than \$15.00, and how far below \$15.00 are their wages prior to implementing the increase. For Counties like Carroll and Belknap, which have a high percentage of lower-wage workers, and which have a higher percentage of those workers well below the \$15.00 minimum, the overall impacts on compensation of the lowest earning workers will be greatest. While Rockingham County, which has a vibrant leisure, hospitality and retail economy that employs a large number of workers, but with workers in those industries generally having wages closer to the \$15.00 minimum, will not see as large a percentage increase in compensation for workers in the lowest earning quintile as will Carroll and Belknap Counties.

Occupational Wage Rate Quintile	Belknap	Carroll	Cheshire	Coos	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
Bottom 20%	6.34%	6.58%	5.28%	5.68%	6.03%	4.84%	4.94%	4.71%	5.42%	5.34%
2nd Quintile	1.81%	1.45%	1.65%	1.31%	2.60%	0.99%	1.37%	0.74%	1.16%	1.99%
3rd Quintile	1.93%	1.44%	1.17%	2.00%	1.37%	1.49%	1.65%	1.29%	1.85%	1.36%
4 <sup>th</sup> Quintile	0.88%	1.00%	0.90%	1.38%	1.46%	0.46%	0.69%	0.29%	0.73%	0.75%
Top 20%	0.25%	0.15%	0.14%	0.41%	0.44%	0.51%	0.40%	0.33%	0.35%	0.96%

## **V. Other Factors Influenced by the Minimum Wage**

Benefits, including employer-provided health insurance, account for around one-third of compensation costs. Working conditions, including safety measures and flexible schedules, can also have value to workers while generating costs to organizations. It would be natural for any of these to shift in response to minimum wage changes, yet labor supply and demand curves typically consider only wages as the determining variable in balancing supply and demand in the labor market. The textbook assumption in labor supply and demand curves that, in the face of a minimum wage increase, all other factors that determine labor supply and demand are held constant, is unlikely to describe the real world. This report does not have access to data that would allow us to assess the likely impacts of non-wage factor adjustments in response to a \$15.00 minimum wage, and which could influence the employment and compensation impacts estimated in our report. Instead, we review some of the limited but relevant research on the topic for insight into how non-wage factors may affect the overall impacts and benefit to workers of a minimum wage increase.

## **A. Employer Provided Health Insurance**

In response to a minimum wage increase an employer might adjust its non-cash compensation offerings. The US Bureau of Labor Statistics documents that wages and salaries, on average, account for between 60 and 70 percent of total compensation costs for an industry. Benefits, including health insurance, paid leave, and pensions account for much of the rest. Research on the effects of minimum wages on non-wage compensation is limited. Because of data limitations, the primary component of non-wage compensation that can be incorporated into research on minimum wages is whether coworkers have employer-provided health insurance. However, the available data on employer-provided health insurance tends to be limited to measuring only whether a worker is provided health insurance and not changes in cost sharing arrangements in whatever benefit is offered.

Analyses of relatively recent minimum wage changes have generally found negative, though modest effects on the provision of employer-provided health insurance. Clemens, Kahn, and Meer (2018) suggest that declines in the provision of employer-provided health insurance have offset roughly 15 percent of the cost of states' recent minimum wage increases.<sup>11</sup> Other recent research also reports negative correlations between minimum wages and employer-provided health insurance in data from both the American Community Survey and the Current Population Survey.<sup>12</sup>

Adjustments in the provision or cost sharing arrangements for employer-provided health insurance will simultaneously mitigate some of the negative employment effects of a minimum wage increase while also reducing the wage increase's effects on a worker's well-being.

## **B. Other Job Attributes**

In addition to changing non-cash compensation, employers may adjust job attributes like effort requirements, schedule flexibility, and training opportunities, and physical amenities in the workplace in response to changes in minimum wages. Positive aspects of jobs are often referred to as “non-compensation amenities,” while negatives are known as disamenities. An organization facing minimum wage increases might seek to offset some of the increase in costs by raising productive disamenities (like effort requirements) and reducing other amenities like flexible scheduling, training opportunities, tuition reimbursements etc.<sup>13</sup>

Recent research has demonstrated the importance of workplace amenities. Several recent papers highlight the value to workers of worker-driven schedules.<sup>14</sup> If a minimum wage results in changes in employees work schedules to compensate employers for higher wage costs, this can mitigate some of the

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<sup>11</sup> Clemens, Jeffrey, Khan, Lisa and Meer, Jonathan, “The Minimum Wage, Fringe Benefits, and Worker Welfare.” NBER Working Paper #24635, 2018.

<sup>12</sup> Eibner, Christine, et. al. “Do Minimum Wage Changes Affect Employer-Sponsored Insurance Coverage?” Paper presented at the 7th Annual Conference of the American Society of Health Economists, 2018.

<sup>13</sup> Clemens, Jeffrey, “How Do Firms Respond to Minimum Wage Increases? Understanding the Relevance of Non-Employment Margins,” *Journal of Economic Perspectives*, 35, (1), 51–72, 2021.

<sup>14</sup> Chen, M. Keith, et. al. “The Value of Flexible Work: Evidence from Uber Drivers.” *Journal of Political Economy* 127 (6): 2735–94, 2019. Mas, Alexandre, and Pallais, Amanda, “Valuing Alternative Work Arrangements.” *American Economic Review* 107 (12): 3722–59, 2017. He, Haoran, Neumark, David, Weng, Qian, “Do Workers Value Flexible Jobs? A Field Experiment on Compensating Differentials.” NBER Working Paper #25423



minimum wage's employment effects but leave some workers worse off. While workplace amenities clearly matter to workers, there is little research on how amenities are affected by minimum wage changes. There is relatively little empirical evidence on the minimum wage's effects on scheduling and such things as workplace comfort, safety, and other related factors. A 2018 analysis quantified workers willingness to pay for improved workplace conditions and found the valuations to be substantial.<sup>15</sup> Clemens and Strain (2020) found evidence that minimum wage increases can result in shifts away from worker-driven schedules and towards employer-driven schedules.<sup>16</sup> Employer-driven schedules can generate higher output per hour if, for example, they enable firms to dismiss workers during slack shifts. Lack of control over their schedules is costly for workers and thus requires compensation in the form of higher wages.

### **C. Worker Productivity**

Recent research on the effects of minimum wages on productivity finds that low-productivity workers increase their work effort in the wake of minimum wage increases.<sup>17</sup> In that research, increased effort by workers appear to offset a substantial portion of the cost increases associated with minimum wage increases. These large impacts may not be generalizable, however, as they analyze workers and firms in settings where output is well-measured and where compensation has a piece-work or commission component.

### **D. Other considerations**

When organizations offer a common benefits package to workers of multiple skill and wage levels, minimum wage increases may have the effect of altering the compensation packages offered to both minimum wage and non-minimum wage workers. Changes in the minimum wage can affect the wage levels of non-minimum wage employees (as non-minimum wage workers expect wage increases to maintain existing wage differentials), but also health insurance or other benefits, and can thus generate "ripple effects." That is, they create a situation where minimum wage increases can impact wages for both minimum wage workers and higher wage workers.

Employers can also alter their personnel policies by substituting from low-skilled labor to higher-skilled labor. This "labor-labor substitution" is important for assessing the welfare implications of a change in the minimum wage. Aggregate data on employment impacts from a minimum wage increase can mask changes in the types of workers that are actually employed. If the least-skilled are replaced by higher-skilled workers, productivity may increase while industry employment counts can mask job losses for the intended beneficiaries of the minimum wage increase. Horton (2018), finds clear evidence that minimum wage increases lead firms to shift from low-productivity workers towards higher-productivity

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<sup>15</sup> Maestas, Nicole, Mullen, Kathleen, et. al. "The Value of Working Conditions in the United States and Implications for the Structure of Wages." NBER Working Paper #25204, 2018.

<sup>16</sup> Clemens, Jeffrey, and Strain, Michael, "Implications of Schedule Irregularity as a Minimum Wage Response Margin." *Applied Economics Letters* 27 (20): 1691–94, 2020.

<sup>17</sup> H. Ku, "Does Minimum Wage Increase Labor Productivity? Evidence from Piece Rate Workers," Department of Economics, University College London, Working Paper, 2018. Coviello, D., Deserranno, E. and Persico, N, "Minimum Wage and Individual Worker Productivity: Evidence from a Large U.S. Retailer," Workforce Science Project of the Searle Center for Law, Regulation, and Economic Growth, Northwestern University, working paper, 2018.

workers.<sup>18</sup> More specifically, his research finds that firms shift towards workers whose job profiles show higher past wages. Other recent research has found evidence that firms substitute away from low-skilled workers following minimum wage increases. Clemens, Kahn, and Meer (2019) find that recent increases in state minimum wages predict increases in the average age and education of workers in low-wage occupations.<sup>19</sup> They also find evidence that firms altered their job vacancy postings: specifically, firms became more likely to require high school diplomas of prospective employees in the wake of recent minimum wage increases. Within food service or retail industries, several studies find evidence consistent with substitution across groups of low-skilled workers. Finally, research on the city of Seattle’s recent minimum wage increases found disproportionately large hour reductions for those who were relatively new to their jobs relative to low-wage workers who had substantial experience in their jobs.<sup>20</sup> In an analysis of food service employment, Clemens and Wither (2019) find that some of the least-skilled food service workers were displaced by slightly higher-skilled workers after the July 2009 increase in the federal minimum wage.<sup>21</sup> At a large retail firm, Giuliano (2013) found a shift in employment among teenage workers towards teenagers from more affluent neighborhoods following the 1996 increase in the federal minimum wage, disadvantaging lower income teenagers.<sup>22</sup>

The research referenced in this section illustrates how personnel policies can complicate evaluations of the impacts of a minimum wage increase. First, simple employment counts can mask changes in the composition of who is employed following a minimum wage hike. Second, changes in the design of compensation (including wages and benefits) in response to a minimum wage increase can have implications that have positive as well as negative impacts on both lower- and higher-wage employees of an organization. These issues highlight the fact that assessing the overall benefits of a minimum wage increase on low-wage workers cannot be made from a simple examination of changes in wage rates and aggregate employment.

## VI. Conclusions

Although there is some consensus that employment is negatively affected by minimum wage increases, recent research indicates that the magnitude of employment impacts has lessened in recent decades. Still, raising the minimum wage will lead to a decline in employment opportunities for some in New Hampshire, even as it increases the earnings for many more. A number of factors not accounted for in classical economic models suggest that there are reasons why the employment effects may not be as great as once believed, including the demographic and industry composition of the labor force and the compensation and non-compensation ways in which employers may offset some of the costs of a minimum wage increase. A minimum wage can harm its intended beneficiaries by reducing employment opportunities and even when

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<sup>18</sup> Horton, John, 2018, op. cit.

<sup>19</sup> Clemens, Jeffrey, Khan, Lisa and Meer, Jonathan, “Dropouts Need Not Apply: The Minimum Wage and Skill Upgrading,” NBER Working Paper #27090, 2020.

<sup>20</sup> Jardim, Ekaterina, et. al. “Minimum Wage Increases and Individual Employment Trajectories.” NBER Working Paper #25182, 2018.

<sup>21</sup> Clemens, Jeffrey, and Wither, Michael, “The Minimum Wage and the Great Recession: Evidence of Effects on the Employment and Income Trajectories of Low-Skilled Workers.” *Journal of Public Economics* 170: 53–67, 2019.

<sup>22</sup> Giuliano, Laura, “Minimum Wage Effects on Employment, Substitution, and the Teenage Labor Supply: Evidence From Personnel Data.” *Journal of Labor Economics* 31 (1): 155–94, 2013.

it has no effect on employment. The potential for non-cash compensation and workplace conditions and amenity changes by organizations in response to a minimum wage increase suggest that estimates of how a higher minimum wage affects wages and employment may not be sufficient to assess its desirability. The desirability of the tradeoffs involved in benefiting some while disadvantaging others with a minimum wage increase is beyond the scope of this report, rather, this report is designed to help inform decisions regarding those tradeoffs.

This analysis finds that employment in New Hampshire under a new \$15.00 federal minimum wage will be lower by nearly 6,000 workers than it would be in the absence of the increase. Results also indicate that job losses will be greatest among the lowest wage workers, even as the wages and income of lower-wage workers who retain their jobs increase the most among all income groupings. Other distributional impacts of concern relate to the greater ability of larger organizations to absorb the costs of increasing the minimum wage who, in any case, are less likely to pay minimum wage, so smaller, local businesses already at a cost disadvantage can be put at even more of a competitive disadvantage. Research nationally indicates that the impacts of a proposed \$15.00 minimum wage would fall disproportionately on small employers who are less likely to have the cash reserves or profit margins to absorb the increase in labor costs than larger businesses.

Support for substantially increasing the federal minimum wage appears to be growing in the U.S., but if augmenting the income of individuals with the least earning power (because of experience, skills, education, etc.) is a national goal, it is hard to see how that responsibility should fall primarily (as this analysis suggest it does) on a few industries that employ the majority of low-wage workers, especially when doing so will decrease their opportunities for employment. Our analysis, as well as research nationally, suggests that those with the least opportunities bear the greatest negative employment impacts even as they also receive some benefits.