# Relationship Between Minimum Wage and the Unemployment Rate

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**Abstract.** The following issues are carefully considered in minimum wage discussions: There is considerable interest in the minimum wage across the country. State-level minimum wages are also set by each state in addition to the federal minimum wage, which is decided by the federal government. The importance of the minimum wage in the job market is clear. The minimum wage and its relationship to the unemployment rate are both topics covered in this article along with the factors affecting minimum wages. Workers experience good effects from increasing minimum salaries in the beginning but negative effects at a certain point. On the other side, businesses initially respond favorably to increases in the minimum wage, but they turn around once they reach a certain barrier and must incur too much capital investment. As a result, they tend to hire fewer workers in the long run, which lowers unemployment. The essay states distinct responses from employers and employees to various minimum wage changes, illustrates a labor supply curve that bends backward, and then introduces the accompanying unemployment oscillations.

**Keywords:** Unemployment; minimum wage; economic conditions; labor supply.

## 1. Introduction

In 1938, the federal minimum wage was established by the Fair Labor Standards Act. In order to keep up with inflation and productivity advances, the wage has regularly gone up from its initial figure of 25 cents per hour [1]. Different factors, including the minimum wage, influence the economic climate in a nation. It protects the rights of the lowest-paid workers first. The Legal Information Institute cites the minimum wage's two primary objectives as being the stabilization of the post-depression economy and the protection of the workforce. The purpose of the minimum wage is to protect the health and wellbeing of workers by ensuring that they can maintain a minimal level of life. The primary objective also included helping the least powerful workers in the country, those who lacked the power to secure even a meager subsistence wage for themselves [2]. A minimum wage allows workers to make enough money to satisfy their daily needs and continue to be productive, which ultimately leads to the growth of the entire economy. It not only stands for maintaining employee benefits, but it also ensures that the economy is operating at maximum potential. The factors influencing minimum wage are thoroughly examined in this article, as well as the true effects of minimum wage on employees as shown by the unemployment rate.

## 2. Relationship Between Minimum Wage and the Unemployment Rate

The definition of the unemployment rate, currently set up by the U.S. Bureau of Labor Statistics, is calculated towards people satisfying all of the requirements. During the reference week for the poll, they were unemployed. Except for a brief sickness, they were available for work during the survey reference week. They actively sought employment at least once during the four weeks that ended with the reference week for the survey (see active job search techniques) OR they were temporarily laid off and anticipated returning to their position. For someone to be considered unemployed, they must have actively looked for work within the previous four weeks. If not, they are categorized as not being in the labor force. Minimum wage, according to the law, if there is one for the company, a labor union contract, is the lowest income that an employer may give to its nonexempt workers [3]. Two types of minimum wage exist in the US: one is federal minimum wage, which is fixed for the whole country,

and another is the state's minimum wage, which varies from state to state. In 1939, FLSA was enacted into law by President Franklin D. Roosevelt. The minimum pay at the time was only 25 cents per hour according to the legislation [4]. The hourly federal minimum wage is currently $7.25. However, firms directly regulated by the Fair Labor Standards Act (FLSA) must abide by the federal minimum wage. States with their own hourly wage standards may increase this rate [4]. Here are some examples of the state's minimum wage. Alabama sets its state's minimum wage exactly equal to the federal minimum wage, which is $7.25. On the contrary, California gives their labor $15.5, concluding that the variation in minimum wage is caused by the local financial conditions. This article utilizes state minimum wage, which can rule out the concern that the outcome might be affected by the real wage or changes caused by local cost of living.

From one perspective, minimum wage means the labor's value, corresponds to the productivity of the specific employee group. As Basu also mentioned in his article, during a time of intense study activity, it was discovered that higher wages are associated with better nutrition and higher worker productivity. For example, if an economy had involuntary or higher employment, whether it be by legislation, a tax and employment subsidy scheme, or planned public sector employment [5]. It is widely known that workers tend not to work and stay in the unemployment classification. At this time, increasing the minimum wage can help them get motivated and eager to get back into the labor market. On the contrary, a higher minimum wage can also pose negative effects on workers. In the beginning, workers are more inclined to work more because of the increasing minimum wage and the decreasing opportunity cost correspondingly.

However, from the companies' perspectives, higher wages mean higher labor costs, resulting in a decrease in income. As the online article "How raising the minimum wage might affect your business" also mentions, an increase in the minimum wage raises your overhead expenses, which could lead to a higher price point passed onto customers [3]. Therefore, they tend to cut off some workers in order to keep overhead expenses at a reasonable level for successful operations, businesses may incline toward outsourcing if the cost of doing so is lower than the cost of hiring staff members [3]. In the end, the unemployment rate actually increases. The Mercator Center at George Mason University also found out this fact. They claim that the cost of labor for the firms rises when the minimum wage is mandated for employers. It is common for business owners to reduce staff hours or jobs in order to offset this cost. This is essentially what happened when Target, Trader Joe's, Five Guys, Regal theaters, and thousands of other firms announced shift reductions as a result of the costs associated with complying with ObamaCare. They discovered that operating their firm with fewer employees was simpler and less expensive than paying the high price of employer-mandated health insurance. Raising the minimum wage is merely another way to drive up labor expenses and lessen the number of jobs available for unskilled employers [6].

On the other hand, companies may also want to increase the minimum wage for some reasons in specific conditions. In the first place, workers are more prone to dedicate themselves to work when a higher minimum wage is bestowed. Since the rate of return for employees expands due to the improvement in minimum wages, workers are more satisfied and are more stimulated to finish tasks with higher efficiency and larger productivity. Hyejin Ku, the researcher, is interested in examining whether the increase in minimum wage really poses alternations, gathered dataset related to these two measurements [7]. He meticulously documented these workers' productivity before and after the change and employed the diff-in-diff strategy [7]. He concluded that the data he uncovered supported the incumbent workers' reports of positive effort [7]. The bottom 40th percentile of the worker fixed effects distribution's worker productivity (i.e., production per hour) increases by around 4.6% in comparison to the upper percentiles as the minimum wage raises by 6% on January 1, 2009 [7]. In addition, an expansion in minimum wage can invigorate employees' loyalty. It is widely known that workers paying minimum wage are occupying the following job positions, which also corresponds with high turnover rates, such as, fast food workers, hotel receptionist, Childcare teachers, Hotel housekeepers, and waiters [8]. Paying higher minimum wage to these workers can prevent them from leaving this position and switching to another efficiently. Also, when the workers' financial

conditions are boosted, they tend to spend more and bring out more benefits to the company. In Samuel O'Neal's interview with a bakery's workers and employers, the fact was also revealed. The manager Schall thinks that providing workers with higher wages will keep them in their positions longer and improve the working environment for all commonwealth firms [9]. The worker Edelman also believes that if workers are paid a livable wage and have more disposable income, they will spend more money in businesses like bakeries [9]. Schall and Edelman believe it's critical to level the playing field, so employers should be accountable for ensuring that their employees have enough money to cover their basic expenses, like housing, food, and clothing, as well as some extra cash to spend [9]. Therefore, in some conditions, employers are more willing to hire employees with higher minimum wages due to their expectations workers' loyalty and increasing productivity.

At present, domestic and foreign scholars have analyzed the relationship between minimum wage and the unemployment rate in more and more detail. Several years ago, scholars mostly analyzed minimum wage and unemployment rates from a broad spectrum, while more in-depth these days. Moreover, the relationship between wage levels and unemployment rates is not as simple as thought. They are not definitely positively or negatively interrelated, while interchange differently in disparate intervals. Scholars nowadays even developed a thorough model representing the relationship between wage intervals and unemployment conditions. As Richard A. Brecher mentioned in his article, The model that results from adding a minimum wage and consequently involuntary unemployment to a traditional two-sector model of a perfectly competitive economy with optimal saving and endogenous growth emphasizes the potential case of a backward-bending demand curve for labor, along which a rise in the minimum wage might increase total employment [10]. Backward bending labor supply curve is that the supply rises as wages do as the curve slopes from left to right. However, in labor markets, increasing pay can sometimes result in a fall in labor supply after a certain point [11]. Therefore, at the beginning part of the labor supply curve, the increasing minimum wage, corresponding with an increasing labor supply results in a decrease in unemployment: As Brecher stated in his article that analysis demonstrates that (under some circumstances) raising the minimum wage can result in more jobs overall [10]. Moreover, his analysis declares that the salary increases lowers both the rate of return on capital and the pace of growth, which may lower the interest rate net of growth [10]. In the current representative-agent paradigm, any potential increase in employment must therefore be balanced out by a clear decline in the rate of growth [10]. In this case, as mentioned in the model, an increase in wage decreases employment, resulting in a decrease in labor supply. Furthermore, labor supply interacts with unemployment, which builds the bridge of the relationship between the unemployment rate and wage levels. Carmen built a model containing data from 33 countries from 1980 to 2020. In his model, he illustrates that the unemployment rate decreases with increasing minimum wages, although the severity varies depending on whether one is below or above the threshold [12]. In other words, when the minimum wage is below its threshold, increases in the minimum wage result in a decrease in the overall unemployment rate, but when this value is over its threshold, the shortfall in this indicator is substantially bigger [12]. Carmen also indicates the exact value of the threshold. He declares that the minimum wage threshold is 9.1667, a unit increase in minimum wage generates a 0.6581 unit decrease in unemployment before the threshold and generates a 0.7018 unit decrease after the threshold [12].

## 3. Conclusion

It is clear from prior research on minimum wage and unemployment rates that various influences are placed on businesses and employees independently, resulting in different results for businesses and workers. Employees are more likely to work, which lowers unemployment, when the wage rate is closer to the minimum wage. The income of businesses is restricted as the wage rate gradually rises until a threshold, which causes businesses to hire fewer people and raise the unemployment rate. The precise effects of minimum wage changes vary, though, and raising the minimum wage can help the economy. When the entire economy is focused on progressing and developing in the first half of the

time, the minimum wage should be maintained slightly higher to ensure an increase in benefits and purchasing power for employees, matching the company's willingness to increase the minimum wage in order to win the loyalty and high productivity of its workforce. It is highly advised for the economy to reduce minimum wage after it reaches a not very low point in order to ensure firm benefits and avoid employees from cutting back on their working hours due to high salaries. Determining whether to raise or lower the minimum wage should therefore be a top priority to take into account for an economy to recover or advance, especially now that economies are recuperating from the shock of COVID-19.

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