

Min Wage and Employment



Fill in the blanks. In the competitive model, an increase in the binding minimum wage ___ reduce(s) employment. In the monopsonistic model, an increase in the binding minimum wage ___ raise(s) employment.

- A. always
- B. may
- C. never



Here's the correct answer:

In the competitive model, an increase in the binding minimum wage *always* reduce(s) employment. In the monopsonistic model, an increase in the binding minimum wage *may* raise(s) employment.

Explanation:

1. Competitive Model:

- In a perfectly competitive labor market, wages are determined by supply and demand.
- A binding minimum wage (one set above the equilibrium wage) leads to a surplus of labor, meaning unemployment increases. Thus, **employment always decreases**.

2. Monopsonistic Model:

- In a monopsony (a market with a single or dominant employer), the employer has wage-setting power and typically pays wages below the competitive equilibrium.
- A binding minimum wage can force the monopsonist to pay higher wages, which can increase employment if the minimum wage is below or equal to the equilibrium wage. Thus, **employment may increase**. However, if the minimum wage is set too high, it could still reduce employment.



True or False? At the time that the Card and Krueger (1994) study was published, the majority of academic economists agreed with the following statement: "Minimum wages substantially lower employment among low-wage workers."



True.

At the time of the Card and Krueger (1994) study, the dominant view among academic economists was that minimum wages substantially reduced employment among low-wage workers. This belief was

rooted in the traditional competitive labor market model, where a binding minimum wage above the equilibrium wage creates a surplus of labor (unemployment).

Card and Krueger's study, which found that an increase in the minimum wage in New Jersey did not reduce employment in fast-food restaurants and even suggested a possible increase, challenged this conventional wisdom. Their findings sparked significant debate and further research into the effects of minimum wages, particularly in monopsonistic labor market contexts.



From 1978 to 2015, how have economists' opinions changed over time regarding the effect of minimum wage on employment among low-wage workers?

- A. More and more economists agree that minimum wages substantially lower employment.
- B. Fewer and fewer economists agree that minimum wages substantially lower employment.
- C. Economists' opinions remain approximately unchanged over time.
- D. There was no consistent trend over time.



B. Fewer and fewer economists agree that minimum wages substantially lower employment.

Explanation:

Over time, from 1978 to 2015, economists' opinions on the impact of minimum wages on employment have shifted. Early consensus largely supported the idea that minimum wages substantially reduce employment among low-wage workers, based on the competitive labor market model. However, studies like Card and Krueger (1994) and subsequent empirical research have introduced evidence that the effects of minimum wages on employment may be small or even negligible in certain contexts, such as in monopsonistic markets.

This shift in evidence led to a gradual decline in the number of economists who strongly agree that minimum wages substantially lower employment. Instead, there is greater recognition of nuanced effects that depend on market conditions and wage levels.



Please construct an engaging narrative that explains the fancy concepts from scratch behind the problems above.
Please add some quantitative tangible examples, and some humor.



Let's break this down into an engaging and digestible narrative, complete with examples, a little humor, and clarity for all.

The Tale of Two Models: The Competitive Town vs. Monopsonyland

Once upon a time, in the land of **Laborville**, there were two towns: **Competitive Town** and **Monopsonyland**. Both had hardworking folks and curious economists trying to figure out how wages worked.

1. Competitive Town (Where Supply and Demand Rule the Day)

In Competitive Town, workers and employers meet in the bustling **Market Square**, where wages are decided by a game of tug-of-war between **Supply** (workers looking for jobs) and **Demand** (employers needing labor).

Let's say:

- 100 workers are willing to work for \$10/hour.
- Employers are also willing to hire 100 workers if they're paid \$10/hour.

So, at **\$10/hour**, everyone's happy, and employment = 100 jobs.

Now, imagine the **Mayor of Competitive Town** decides to introduce a minimum wage of **\$15/hour**, above the \$10 equilibrium. Here's what happens:

- More workers want jobs at \$15/hour, say 150 workers.
- But employers, facing higher costs, can only afford to hire 80 workers.

Result: **Unemployment rises**. There's a surplus of workers (70 people without jobs). Economists in Competitive Town shake their heads and declare, "Minimum wages *always* reduce employment!"

2. Monopsonyland (Where the Boss Rules the Show)

Now, let's visit **Monopsonyland**, a quirky place where there's only **one big employer**—let's call them "Monopson Co." Think of them as the Amazon of the town, but instead of delivering packages, they deliver jobs.

In Monopsonyland:

- Monopson Co. has the power to set wages because workers don't have many other options.
- They know workers will take whatever wage they're offered, even if it's less than their true worth.

Let's put some numbers on it:

- If workers are worth \$10/hour (their productivity), Monopson Co. only pays them \$7/hour to maximize profits.
- At \$7/hour, Monopson Co. hires 80 workers.

Enter the **Minimum Wage Hero**! The government enforces a minimum wage of \$10/hour. Now:

- Workers are happier (they're paid what they're worth!).
- Monopson Co. hires more workers (say 100) because offering a fair wage attracts more applicants and reduces costly turnover.

Result: Employment **may increase**. Economists in Monopsonyland are surprised. "Minimum wages can *raise* employment here!" they exclaim.

The Card & Krueger Twist

Fast-forward to 1994. Two adventurous economists, **David Card** and **Alan Krueger**, journey into the wilds of fast-food restaurants in New Jersey and Pennsylvania. They want to see what happens when New Jersey raises its minimum wage.

- **Before the wage hike:** Both states have the same minimum wage, and employment is roughly equal.
- **After the wage hike:** New Jersey increases its minimum wage. Surprisingly, fast-food employment in New Jersey doesn't drop—it actually rises slightly compared to Pennsylvania.

This was like discovering Bigfoot for economists: shocking, controversial, and oddly exciting. Card and Krueger's study challenged the belief that "minimum wages always kill jobs." Economists began to rethink their models, especially for low-wage labor markets.

How Opinions Shifted Over Time

Between 1978 and 2015, economists slowly started moving away from the rigid "minimum wages always reduce jobs" stance. Let's use some humor to explain how opinions evolved:

- **1978:** "Minimum wage? Job killer. Always has been, always will be."
- **1994:** "Wait, did New Jersey just prove us wrong? Let's argue about this for decades."
- **2015:** "It's complicated. Sometimes jobs go down, sometimes up. Can we have more coffee before deciding?"

Tying It All Together with Quantitative Examples

Let's put some numbers into a simple scenario:

1. Competitive Town:

- Minimum wage increases from \$10 to \$15/hour.
- Jobs drop from 100 to 80.
- Result: 20 workers are unemployed.

2. Monopsonyland:

- Minimum wage increases from \$7 to \$10/hour.
- Jobs rise from 80 to 100.
- Result: More workers are employed, and they're happier earning fair wages.

Economics + Humor = Understanding

Economics is sometimes like dating: you make predictions based on theories, but the real world often surprises you. Just as you wouldn't bring a Monopoly board to a first date, you shouldn't rely on one-size-fits-all models to explain labor markets.

So, remember:

- In Competitive Town, minimum wages are like setting the bar too high in limbo—some folks just can't get under it.

- In Monopsonyland, minimum wages are like finally adding sugar to unsweetened tea—things get better for everyone.

And that's how labor market models became a little less rigid and a lot more fun to explore! 🎉



To reinforce the understanding, please generate some similar problems and show the solutions.



Here are some similar problems with solutions to reinforce understanding:

Problem 1: Competitive Model with a Minimum Wage

In a perfectly competitive labor market:

- The equilibrium wage is \$12/hour, and at this wage, 200 workers are employed.
- The government sets a minimum wage of \$15/hour.
- At \$15/hour, 250 workers want jobs, but employers only want to hire 150 workers.

Question:

1. How many workers are unemployed after the minimum wage is imposed?
2. What happens to employment in this market?

Solution:

1. **Unemployment:** At \$15/hour, 250 workers want jobs, but only 150 are hired. The surplus of labor (unemployment) is:

$$250 - 150 = 100 \text{ workers.}$$

2. **Employment:** Employment decreases from 200 workers (at \$12/hour) to 150 workers (at \$15/hour).

Conclusion: In the competitive model, the binding minimum wage causes unemployment and reduces employment.

Problem 2: Monopsony Model with a Minimum Wage

In Monopsonyland:

- The monopsonist pays \$8/hour and hires 50 workers.
- A minimum wage of \$10/hour is introduced.
- At \$10/hour, the monopsonist increases hiring to 70 workers because more people are willing to work, and the firm cannot exploit them as much.

Question:

1. What happens to employment after the minimum wage is imposed?
2. What happens to wages for the workers?

Solution:

1. **Employment:** Employment increases from 50 workers (at \$8/hour) to 70 workers (at \$10/hour). The minimum wage incentivizes the monopsonist to hire more workers because it's closer to the competitive wage.
2. **Wages:** Workers now earn \$10/hour, which is higher than the original \$8/hour.

Conclusion: In the monopsony model, the binding minimum wage increases both wages and employment.

Problem 3: Mixed Market

Imagine a market with two types of firms:

- **Competitive Firms** (80% of the market): At \$12/hour, 200 workers are employed. A minimum wage of \$15/hour reduces employment to 160 workers.
- **Monopsonistic Firms** (20% of the market): At \$8/hour, 50 workers are employed. A minimum wage of \$15/hour increases employment to 70 workers.

Question:

1. What is the total employment before and after the minimum wage is imposed?
2. Does overall employment increase or decrease?

Solution:

1. Before Minimum Wage:

- Competitive Firms: 200 workers.
- Monopsonistic Firms: 50 workers.
- **Total Employment:** $200 + 50 = 250$ workers.

2. After Minimum Wage:

- Competitive Firms: 160 workers.
- Monopsonistic Firms: 70 workers.
- **Total Employment:** $160 + 70 = 230$ workers.

3. Change in Employment:

Employment decreases from 250 to 230 workers.

Conclusion: Even though the monopsony increases employment, the competitive firms' reduction in employment outweighs it, leading to an overall decrease in total employment.

Problem 4: Non-Binding Minimum Wage

Suppose the equilibrium wage in a competitive market is \$10/hour, and the government introduces a minimum wage of \$8/hour.

Question:

1. Does the minimum wage affect employment or wages in this market?
2. Why or why not?

Solution:

1. **Effect on Employment and Wages:** The minimum wage of \$8/hour is **below** the equilibrium wage of \$10/hour, so it does not affect the market.
2. **Reason:** A **non-binding** minimum wage (below equilibrium) does not constrain employers or workers because wages are already above the minimum.

Conclusion: A non-binding minimum wage has no effect on employment or wages.

Problem 5: Higher Minimum Wage in Monopsonyland

In a monopsony:

- Initial wage = \$6/hour, employment = 40 workers.
- The government introduces a minimum wage of \$8/hour, increasing employment to 60 workers.
- The government then raises the minimum wage further to \$12/hour, and employment decreases to 50 workers.

Question:

1. What happens to employment at the \$8/hour minimum wage compared to the \$6/hour wage?
2. What happens to employment when the minimum wage is raised to \$12/hour?

Solution:

1. **At \$8/hour:** Employment increases from 40 workers (at \$6/hour) to 60 workers. This is because the minimum wage corrects the monopsonist's exploitation.
2. **At \$12/hour:** Employment decreases to 50 workers because the minimum wage is now **too high**, reducing the firm's ability to profitably hire more workers.

Conclusion: In a monopsony, a moderately binding minimum wage can increase employment, but if set too high, it can reduce employment.

These problems illustrate how the impact of minimum wages depends on the market structure (competitive or monopsonistic) and the level of the minimum wage. By solving these, you gain a deeper understanding of the nuanced effects minimum wages can have!