The Great Minimum Wage Debate

EC 350: Labor Economics

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Spring 2021

Azar et al. (2020)

Discussion

Q_1: What are the strengths of the study?

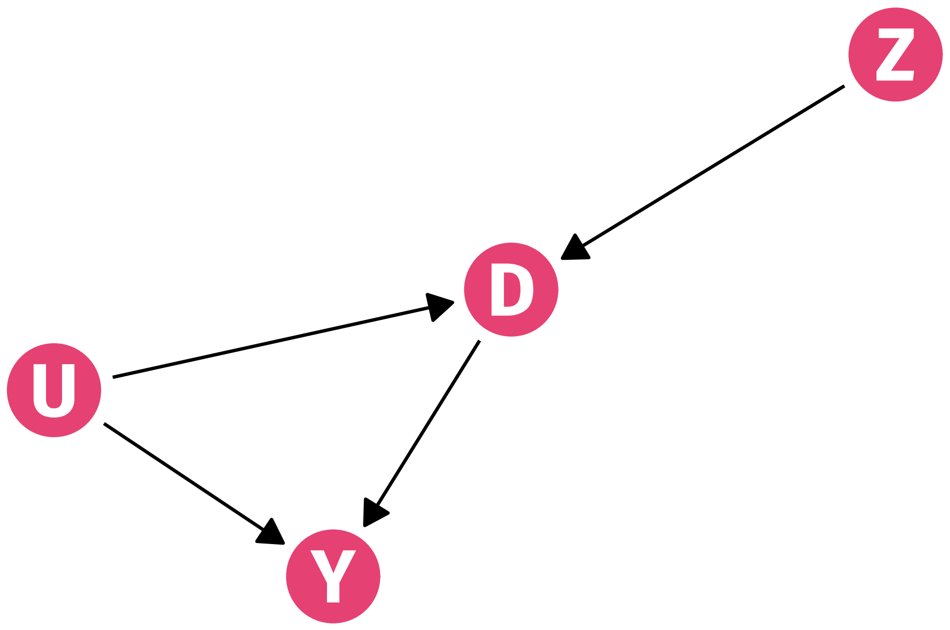
Q_2: What are the weaknesses of the study?

Q_3: What can we learn from the study?

Azar et al. (2020)

The authors worry about unobserved changes in productivity within markets, so they use an **instrumental variables strategy**.

- An **instrumental variable** has a direct effect on the intensity of treatment, but has no direct effect on the outcome variable. It can be used to **isolate** the **"clean" variation in treatment**.



Variables

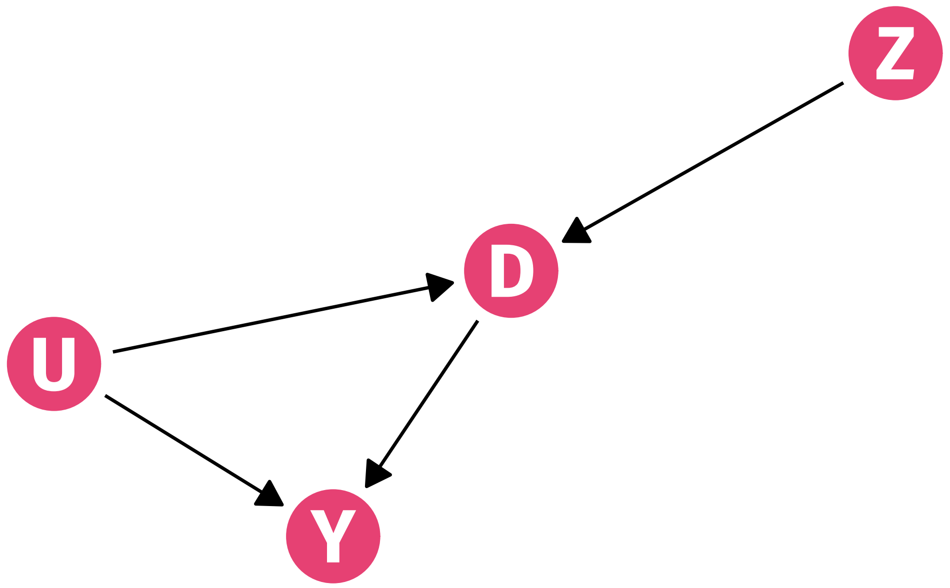
- **D** = Local market concentration
- **Y** = Local wages
- **Z** = Instrument (concentration in other markets)
- **U** = Unobserved changes *within* each market

Azar et al. (2020)

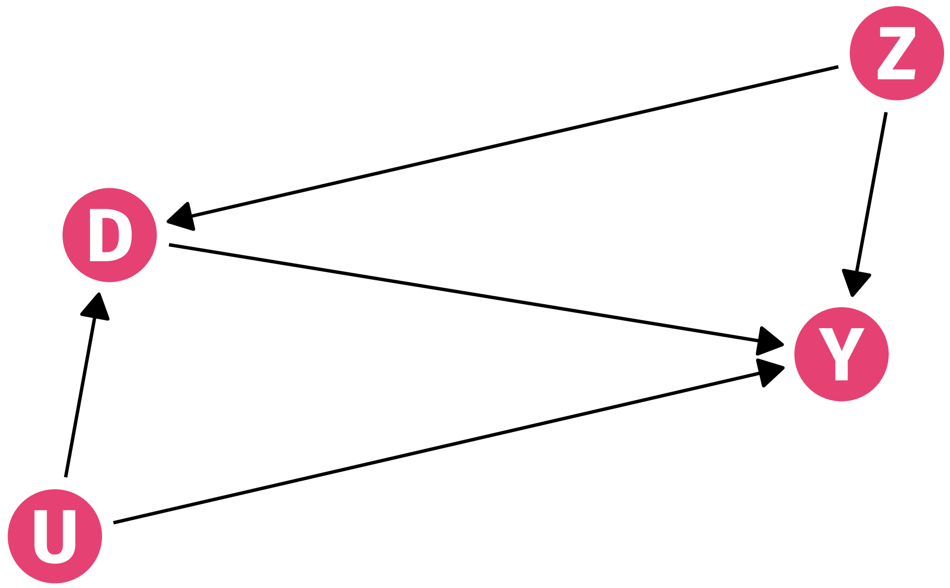
Instrumental variables

The instrument (concentration in other markets) is valid if it only affects local wages through local market concentration. If there is a direct effect on local wages, then it is invalid.

Valid instrument



Invalid instrument



Minimum wages

Minimum wages

Policy Q: Should the federal government increase the minimum wage to $15?

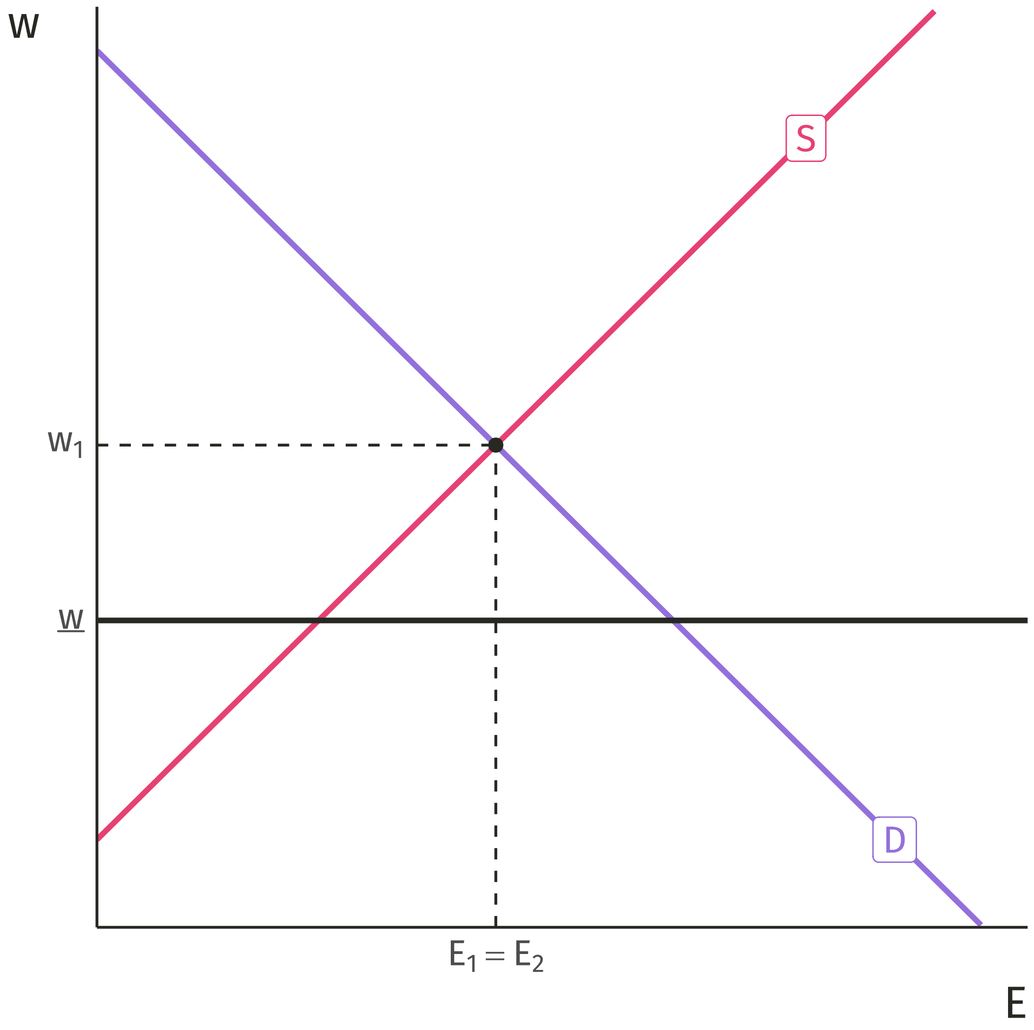
Research Q: How would a $15 minimum wage affect workers and employers?

- **Q:** Would a higher minimum wage help low-wage workers? Would it reduce poverty?
- **Q:** What are the tradeoffs of a higher minimum wage?
- **Q:** Are there are any unintended consequences that we should be aware of?

A great deal of economic research focuses on **how minimum wages affect employment**.

- **Why?** Disemployment is one of the main (potential) unintended consequences. You only enjoy the benefits of a wage increase if you keep your job!

Minimum wages



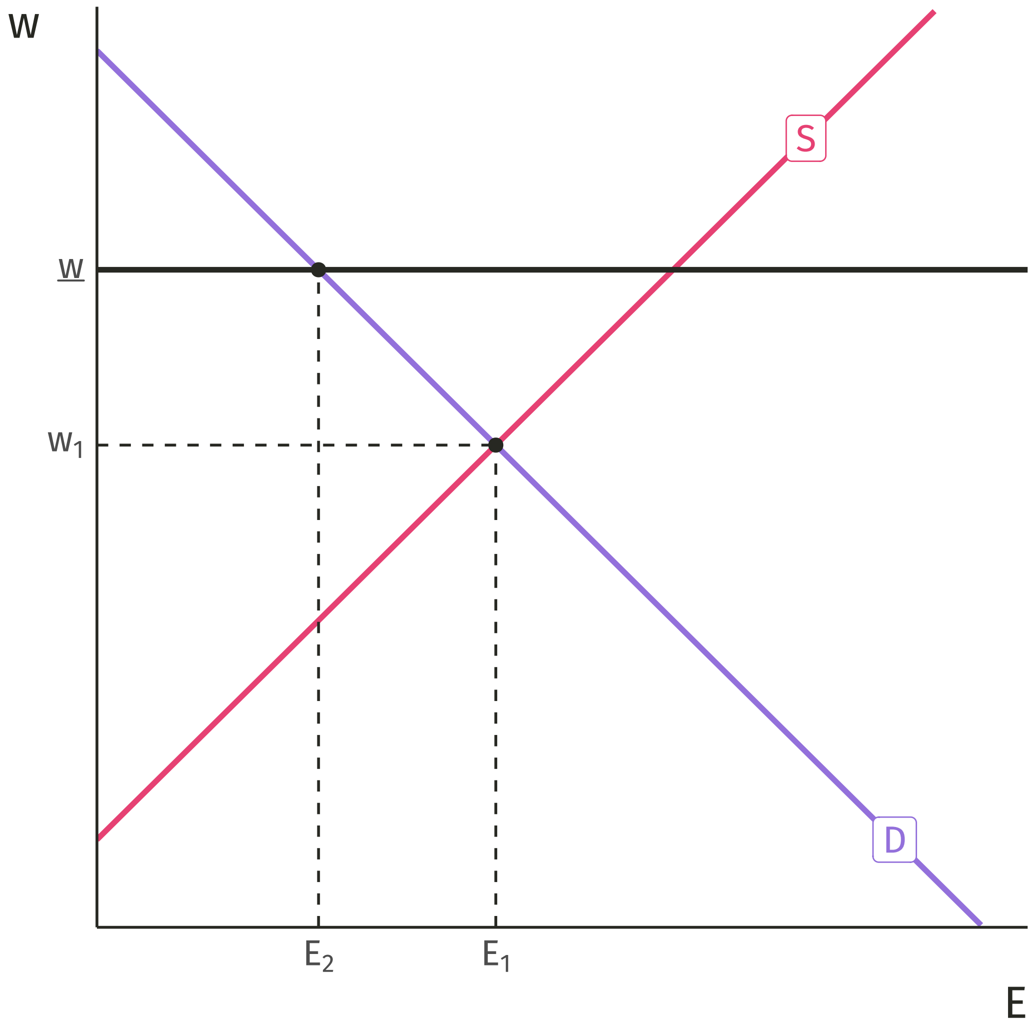
Theory

Q: How does a minimum wage **set below** the current equilibrium wage affect employment?

A: It doesn't. The current equilibrium wage **already satisfies** the minimum-wage requirement. No adjustments required!

- At the same time, this minimum wage doesn't "do anything" for workers—no different than not having a minimum wage!
- This is known as a **non-binding** minimum wage.

Minimum wages



Theory

Q: How does a minimum wage **set above** the current equilibrium wage affect employment?

A: It reduces the number of employed workers.

- **"Winners and losers:"** Workers who keep their jobs earn a higher wage, but workers who lose their jobs end up losing their labor income.
- **Unemployment:** At the higher wage, the quantity of labor supplied exceeds the quantity demanded.

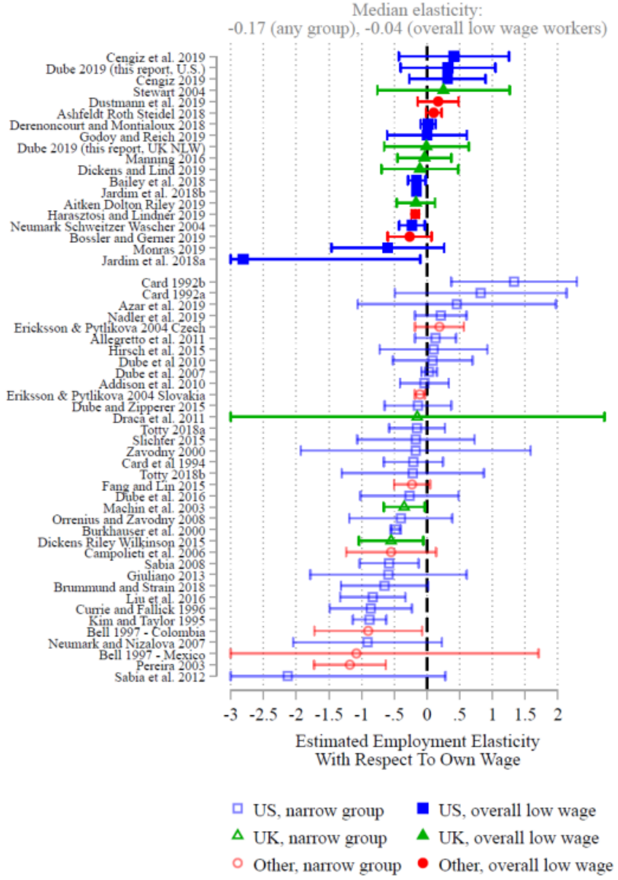
Minimum wages

Evidence

There is considerable variation in estimates of the effect of minimum wages on employment!

Most studies use **difference-in-differences designs**, but differ on other margins:

- **Data** (*e.g.*, surveys *vs.* administrative data)
- **Sample** (*e.g.*, restaurant workers only, teens only, all low-wage workers, *etc.*)
- **Modeling** (*e.g.*, choice of control variables)
- **Increases considered** (*e.g.*, case studies, federal increases, state increases, *etc.*)



Source: Arindrajit Dube (2019), Impacts of Minimum Wages: Review of the International Evidence, *Report prepared for Her Majesty's Treasury (UK).*

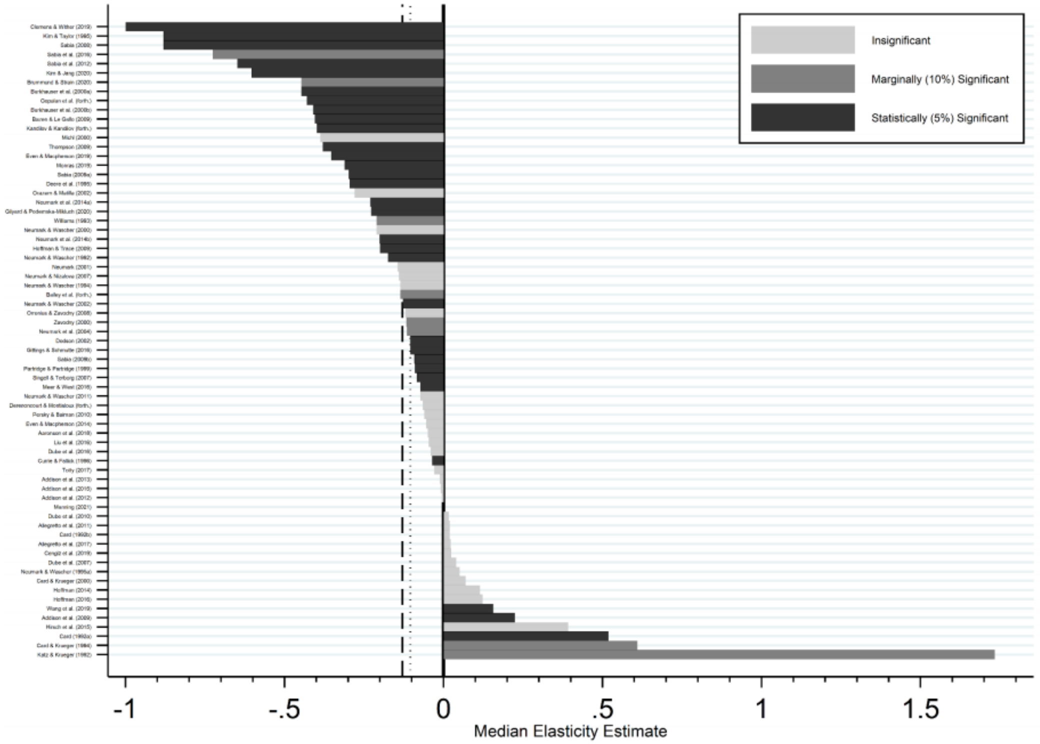
Minimum wages

Evidence

There is considerable variation in estimates of the effect of minimum wages on employment!

Most studies use **difference-in-differences designs**, but differ on other margins.

There is even disagreement about how to summarize the empirical literature!



Source: David Neumark and Peter Shirley (2021), Myth or Measurement: What Does the New Minimum Wage Research Say About Minimum Wages and Job Loss in the United States?, *NBER Working Paper 28388*.

What do we know so far?

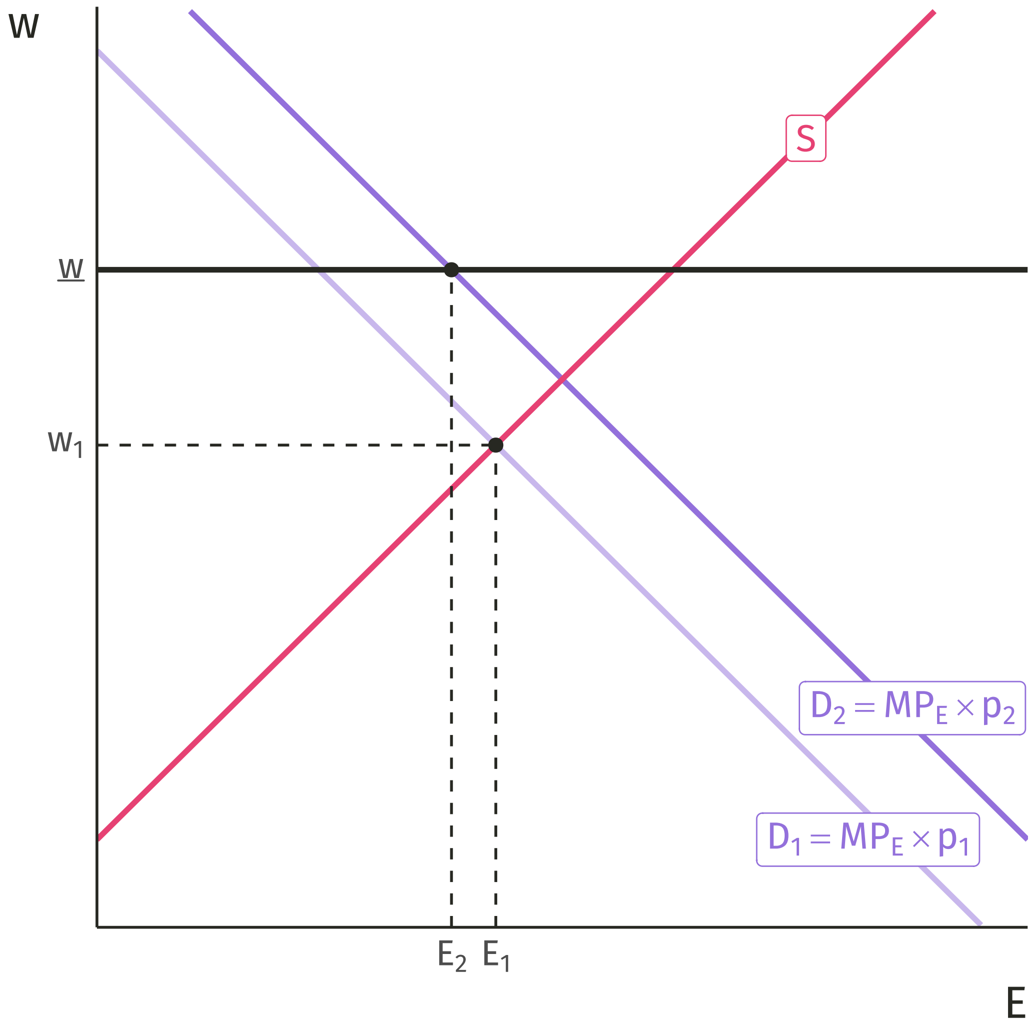
The traditional neoclassical model predicts **an unambiguous decrease** in employment!

Economists disagree about how minimum wages affect employment, but it does appear that some increases in the minimum wage increased employment.

This raises important questions!

- **Q:** Is the neoclassical model wrong? What is missing from our analysis?
- **Q:** How do employers respond to increases in the minimum wage? On what margins do they make adjustments?

Margins of adjustment



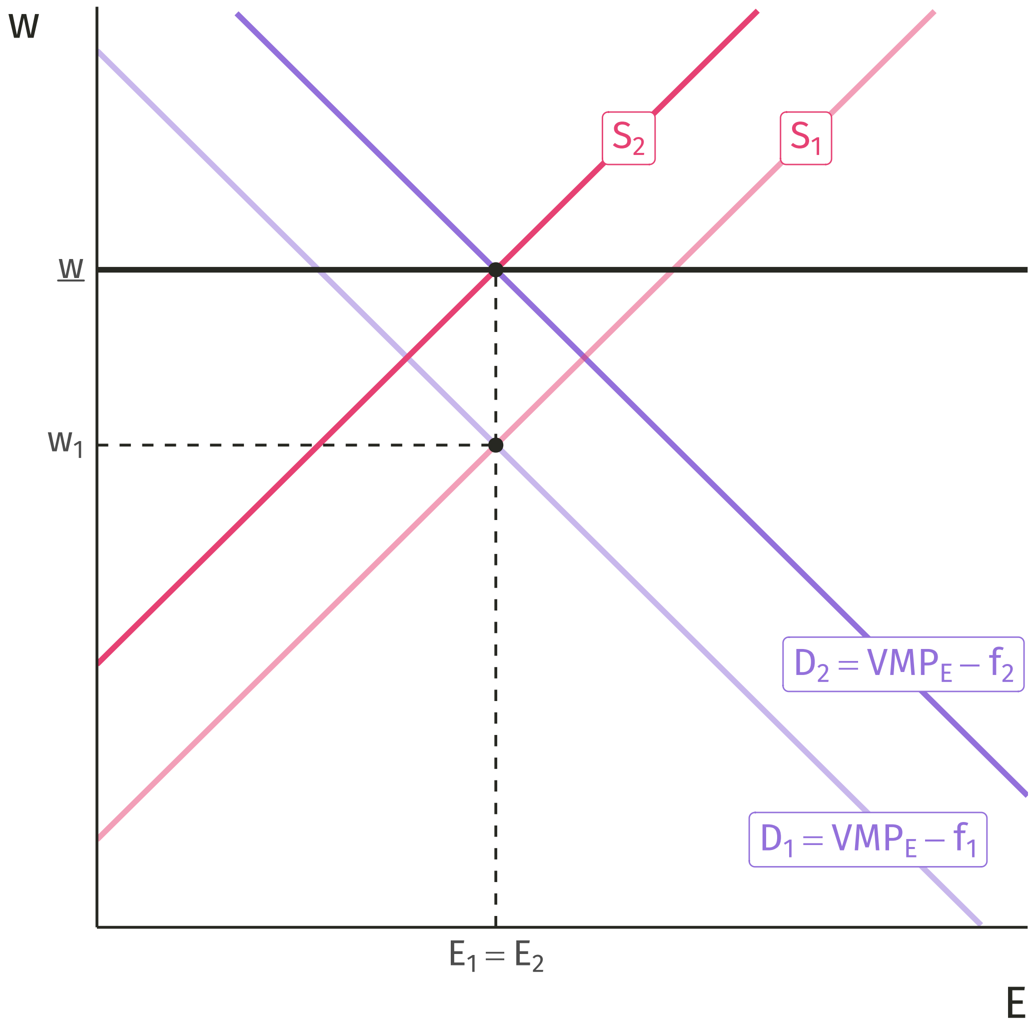
Consumer prices

Firms can respond to a binding minimum wage by **increasing the price** of the output good.

- This is known as **pass-through**, which can partially **offset** the effects of a wage increase.
- The ability of firms to increase prices depends on consumers' sensitivity to changes in price.

In this example, the **decrease in employment is smaller** than when prices are held constant, but unemployment remains.

Margins of adjustment



Fringe benefits

Firms can respond to a binding minimum wage by **cutting fringe benefits**.

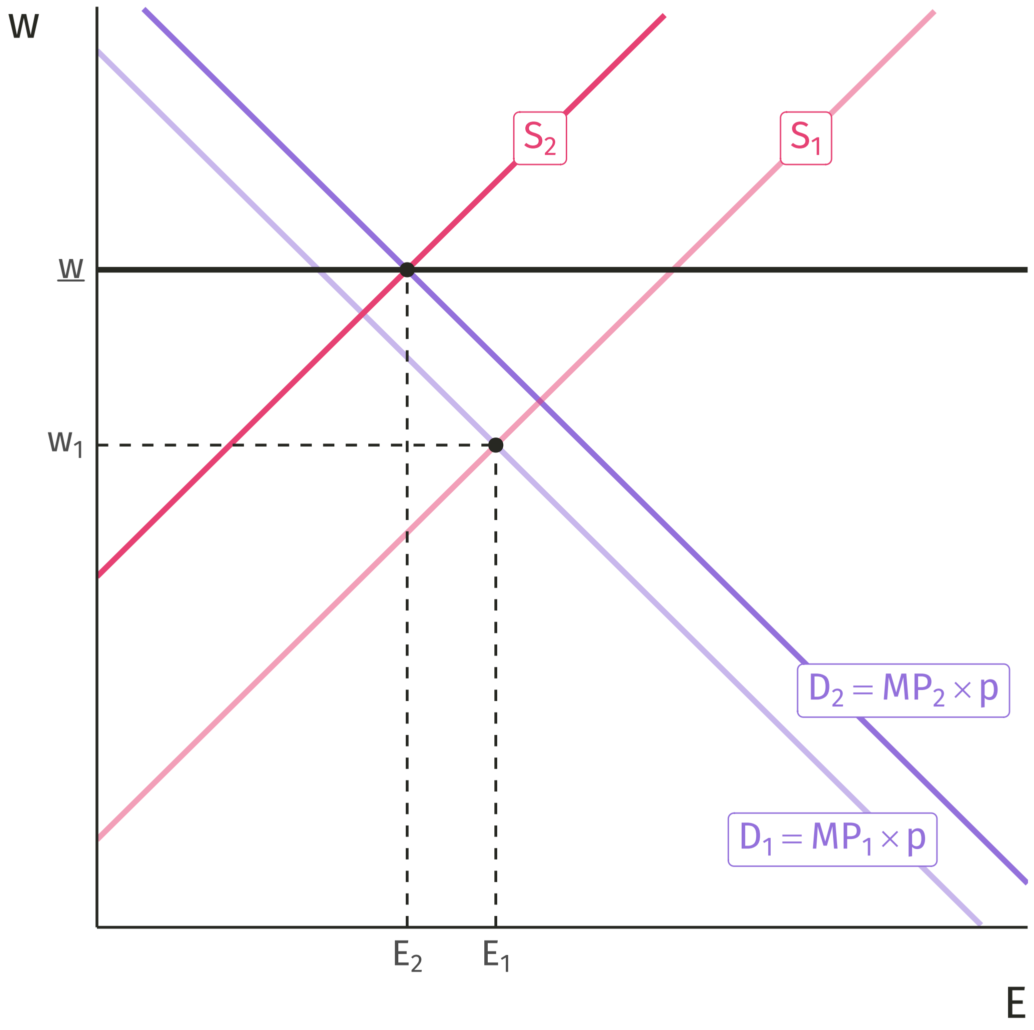
- In addition to reducing supply, decreases in non-wage compensation also increase demand!†

In this example, the decrease in fringe benefits **perfectly offsets** the wage increase.

- No unemployment!

† Fringe benefits affect the marginal cost of hiring a worker, but our previous analysis of profit maximization implicitly assumed that firms do not provide non-wage compensation.

Margins of adjustment



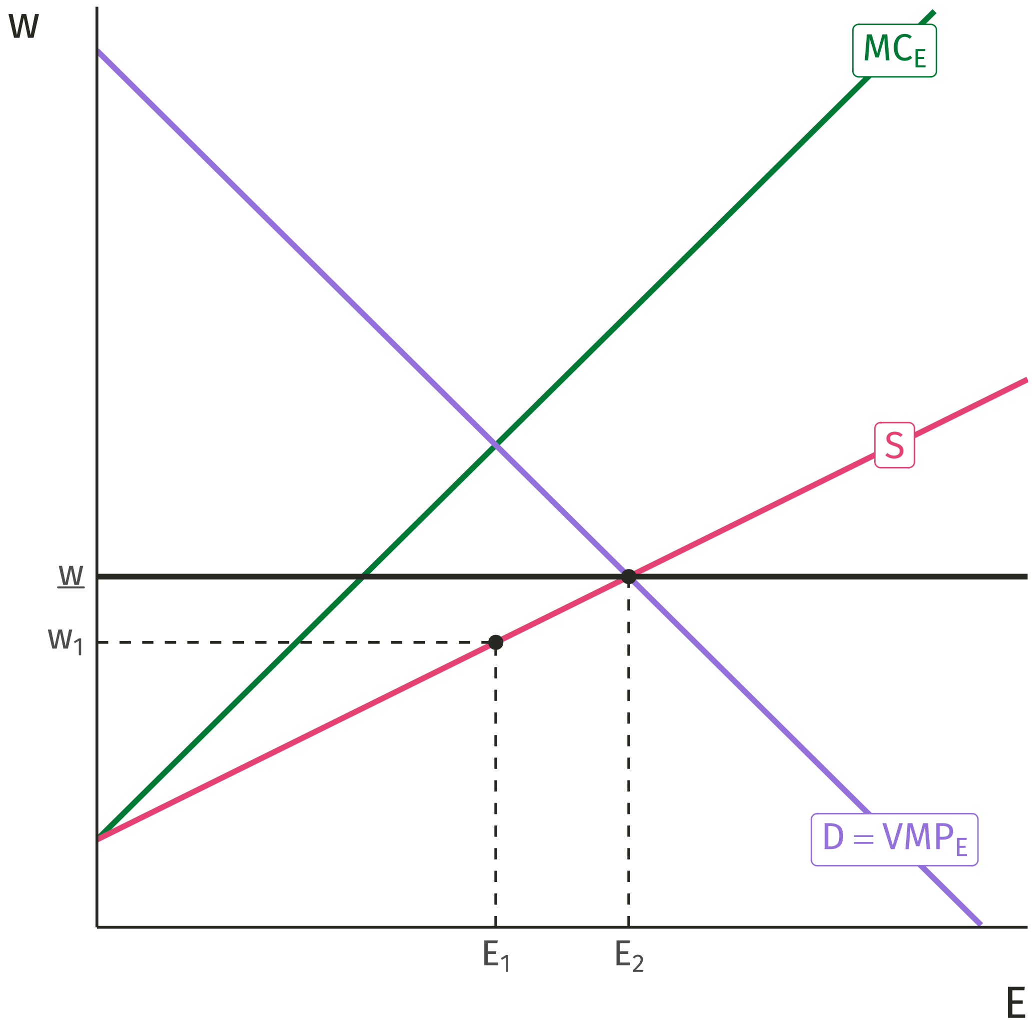
Effort requirements

Firms can respond to a binding minimum wage by **making employees work harder**.

- Working conditions become less desirable, which decreases labor supply.
- Marginal product of labor increases, which increases labor demand

In this example, employment decreases, but there is no unemployment.

Margins of adjustment



Profit

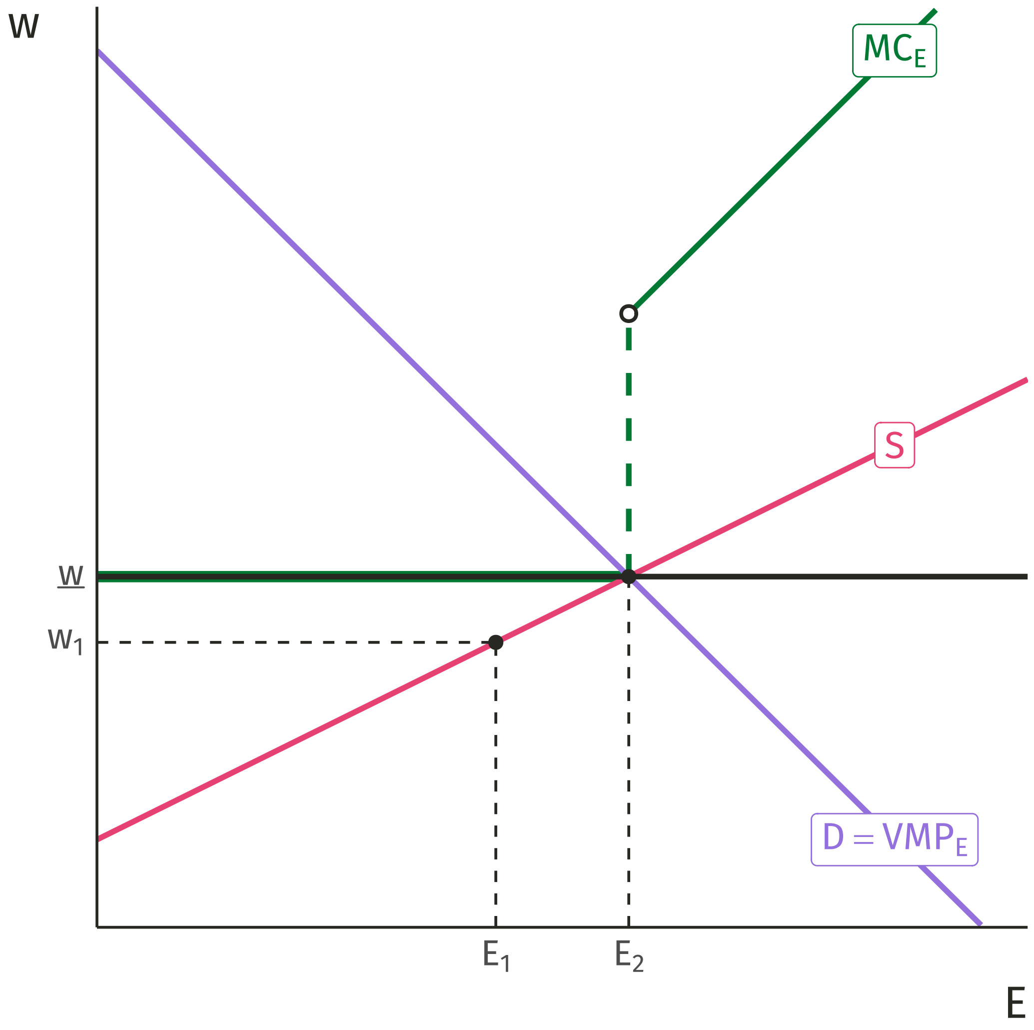
Q: How would a monopsonist respond to a binding minimum wage?

A: Hire additional workers at a higher wage![†]

- No unemployment, either!

[†] This is true up to a point. If the minimum wage is set above the value of marginal product of the last worker hired in an unregulated monopsony, then employment will decrease.

Margins of adjustment



Profit

Q: How does this work?

A: The minimum wage "bends" the marginal cost curve.

- In this example, the last worker hired is now paid the value of her marginal contribution!

Other margins of adjustment

Q: How else could employers respond to increases in the minimum wage?

- Long-run substitution toward capital?
- Substitution toward other kinds of lasbor (*e.g.*, lower-skill to higher-skill)?
- Non-compliance?

Q: Why do these responses matter?

- **A:** They determine whether minimum wage increases will have the intended effect of helping low-wage workers!

Minimum wages

What do we know?

The evidence on employment effects is mixed!

That said, a closer look at **theory suggests that** the size and direction of **employment effects are ambiguous!**

- **It depends!** In particular, it depends on
  - How much firms can increase prices
  - How much firms can cut non-wage compensation
  - Whether firms can adjust their production process
  - Whether firms have market power
  - The ability of firms to substitute toward other inputs
  - Compliance with the law

Perhaps we should expect **heterogeneous effects?**

Minimum wages

Where is the empirical research frontier?

Q: *When* do minimum wages help low-wage workers? When do they hurt?

- *Average* effects can provide useful summaries, but they can also mask a lot of interesting variation!

Q: What is the **optimal** way to help low-wage workers?

- Do other policies (*e.g.*, the EITC) provide the **same assistance at lower cost** (or more assistance at the same cost)?
- Are there other things we should consider (*e.g.*, political feasibility) when making this judgement?

Housekeeping

Assigned reading for Wednesday: Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle by Ekaterina Jardim and coauthors (2017).

- Reading Quiz 7 is due by **Wednesday, May 12th at 16:00**.
- The quiz instructions will include a reading guide.