

Labor Market Supply and Demand

ECO 120: Global Macroeconomics

Goals

1/ 22

Unit Goals

- Define labor demand and identify what influences labor demand
- Define labor supply and identify what influences labor supply
- Predict how wages and level of employment are determined by labor supply and demand.
- Use these skills to make predictions about changes in wages and employment.

Reading and Exercises

2 / 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.

Reading and Exercises

2 / 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.

Reading and Exercises

2 / 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.

Demand

3 / 22

- In the market for labor, the price of labor is the **wage**, and the quantity of labor is **total hours of employment**
- The **quantity of labor demanded** is the amount of worker time that **employers** are willing and able to hire in a given time period at a particular wage.
- Labor demand follows the **law of demand**: All other things remaining equal, the higher is the wage, the lower is the quantity of labor demanded.

Demand

3/ 22

- In the market for labor, the price of labor is the **wage**, and the quantity of labor is **total hours of employment**
- The **quantity of labor demanded** is the amount of worker time that **employers** are willing and able to hire in a given time period at a particular wage.
- Labor demand follows the **law of demand**: All other things remaining equal, the higher is the wage, the lower is the quantity of labor demanded.

Demand

3/ 22

- In the market for labor, the price of labor is the **wage**, and the quantity of labor is **total hours of employment**
- The **quantity of labor demanded** is the amount of worker time that **employers** are willing and able to hire in a given time period at a particular wage.
- Labor demand follows the **law of demand**: All other things remaining equal, the higher is the wage, the lower is the quantity of labor demanded.

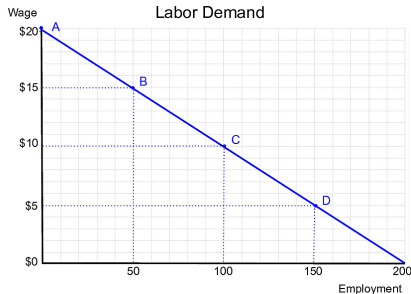
Demand

4/ 22

Labor Demand Curve

Labor Demand Schedule

| Point | Wage | L_D |
|-------|------|-------|
| A | \$25 | 0 |
| B | \$20 | 50 |
| C | \$15 | 100 |
| D | \$5 | 150 |



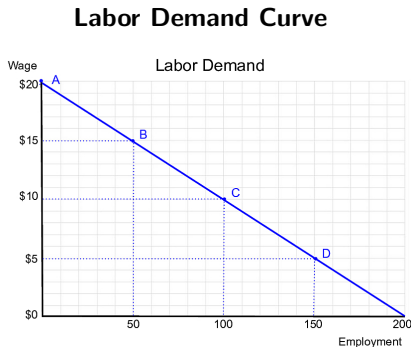
- Law of demand makes the labor demand curve **downward sloping**.
- **Change in quantity labor demanded**: when there is a **change in wage** causing a **movement** from one point on the labor demand curve to another point.

Demand

4/ 22

Labor Demand Schedule

| Point | Wage | L_D |
|-------|------|-------|
| A | \$25 | 0 |
| B | \$20 | 50 |
| C | \$15 | 100 |
| D | \$5 | 150 |



- Law of demand makes the labor demand curve **downward sloping**.
- **Change in quantity labor demanded:** when there is a **change in wage** causing a **movement** from one point on the labor demand curve to another point.

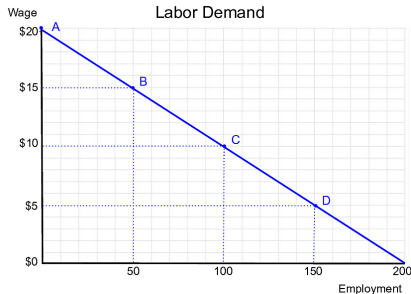
Demand

4/ 22

Labor Demand Curve

Labor Demand Schedule

| Point | Wage | L_D |
|-------|------|-------|
| A | \$25 | 0 |
| B | \$20 | 50 |
| C | \$15 | 100 |
| D | \$5 | 150 |



- Law of demand makes the labor demand curve **downward sloping**.
- **Change in quantity labor demanded:** when there is a **change in wage** causing a **movement** from one point on the labor demand curve to another point.

Supply

5/ 22

- The **quantity of labor supplied** is the number of total hours **people** are willing and able to work in a given time period at a given wage.
- Labor supply follows the **law of supply**: All other things remaining the same, the higher is the wage, the higher is the quantity of labor supplied

Supply

5/ 22

- The **quantity of labor supplied** is the number of total hours **people** are willing and able to work in a given time period at a given wage.
- Labor supply follows the **law of supply**: All other things remaining the same, the higher is the wage, the higher is the quantity of labor supplied

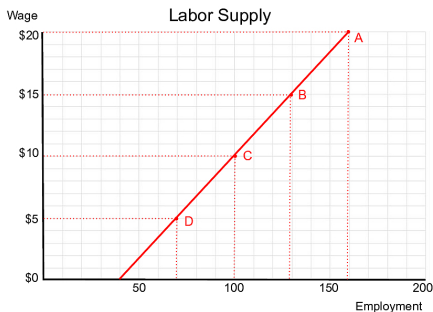
Supply

6 / 22

Labor Supply Curve

Labor Supply Schedule

| Point | Wage | L_S |
|-------|------|-------|
| A | \$20 | 160 |
| B | \$15 | 130 |
| C | \$10 | 100 |
| D | \$5 | 70 |



- Law of supply makes the labor supply curve **upward sloping**.
- **Change in quantity of labor supplied**: when there is a **change in wage** causing a **movement** from one point on the labor supply curve to another point.

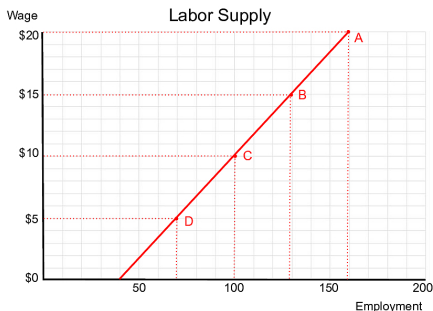
Supply

6 / 22

Labor Supply Curve

Labor Supply Schedule

| Point | Wage | L_S |
|-------|------|-------|
| A | \$20 | 160 |
| B | \$15 | 130 |
| C | \$10 | 100 |
| D | \$5 | 70 |



- Law of supply makes the labor supply curve **upward sloping**.
- **Change in quantity of labor supplied:** when there is a **change in wage** causing a **movement** from one point on the labor supply curve to another point.

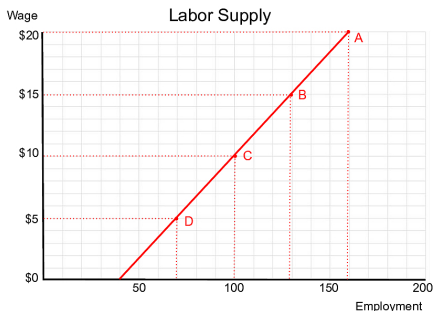
Supply

6 / 22

Labor Supply Curve

Labor Supply Schedule

| Point | Wage | L_S |
|-------|------|-------|
| A | \$20 | 160 |
| B | \$15 | 130 |
| C | \$10 | 100 |
| D | \$5 | 70 |



- Law of supply makes the labor supply curve **upward sloping**.
- **Change in quantity of labor supplied:** when there is a **change in wage** causing a **movement** from one point on the labor supply curve to another point.

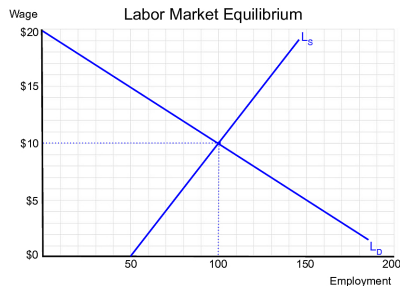
Equilibrium

7/ 22

Equilibrium Definition

- The **equilibrium wage** is the wage where the quantity of labor supplied is equal to the quantity labor demanded.
- The **equilibrium employment** is the corresponding quantity of labor.
- This is the wage and level of employment that should prevail in the long-run in the labor market

Graphical Equilibrium



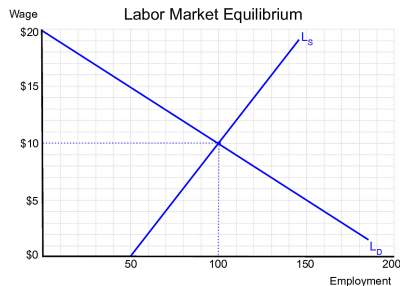
Equilibrium

7/ 22

Equilibrium Definition

- The **equilibrium wage** is the wage where the quantity of labor supplied is equal to the quantity labor demanded.
- The **equilibrium employment** is the corresponding quantity of labor.
- This is the wage and level of employment that should prevail in the long-run in the labor market

Graphical Equilibrium



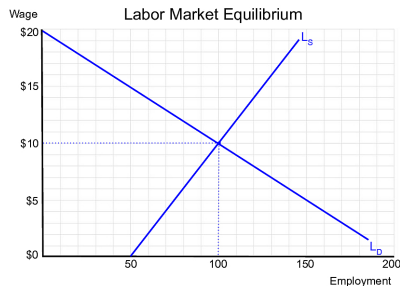
Equilibrium

7 / 22

Equilibrium Definition

- The **equilibrium wage** is the wage where the quantity of labor supplied is equal to the quantity labor demanded.
- The **equilibrium employment** is the corresponding quantity of labor.
- This is the wage and level of employment that should prevail in the long-run in the labor market

Graphical Equilibrium



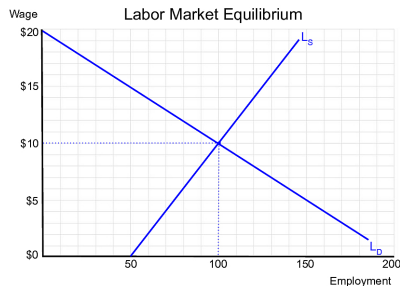
Equilibrium

7/ 22

Equilibrium Definition

- The **equilibrium wage** is the wage where the quantity of labor supplied is equal to the quantity labor demanded.
- The **equilibrium employment** is the corresponding quantity of labor.
- This is the wage and level of employment that should prevail in the long-run in the labor market

Graphical Equilibrium



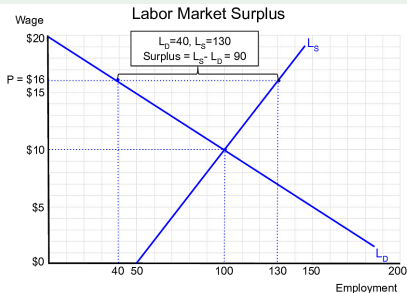
Labor Surplus is Unemployment

8 / 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



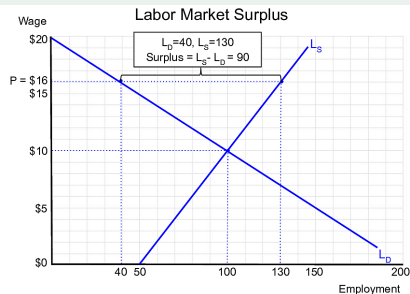
Labor Surplus is Unemployment

8/ 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



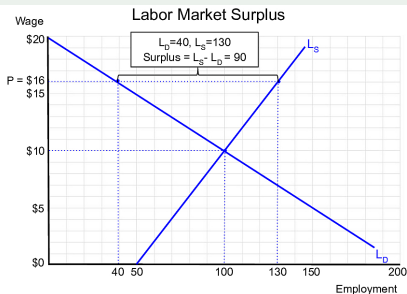
Labor Surplus is Unemployment

8/ 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



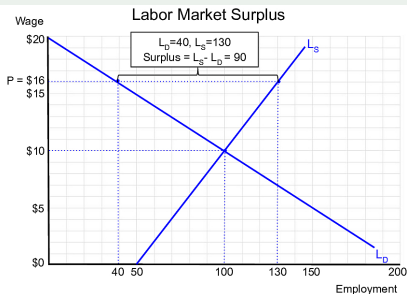
Labor Surplus is Unemployment

8/ 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



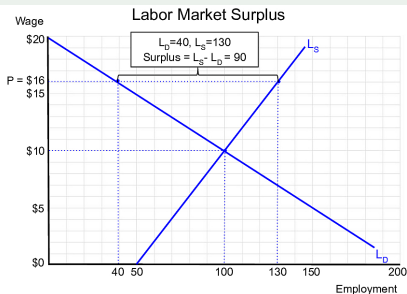
Labor Surplus is Unemployment

8/ 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



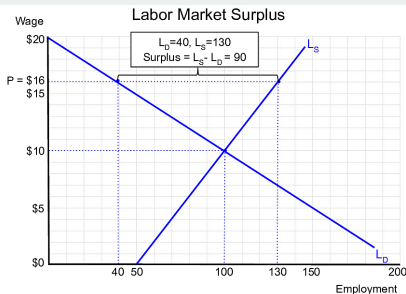
Labor Surplus is Unemployment

8 / 22

Labor Surplus Definition

- When the prevailing wage is **above** equilibrium wage, quantity of labor supplied exceeds quantity of labor demanded
- Quantity of labor supplied \equiv people who want work
- Quantity of labor demanded \equiv how much employers want to hire
- Difference is the surplus = unemployment
- In an unregulated market, market forces will push wage lower toward equilibrium

Graphical Surplus



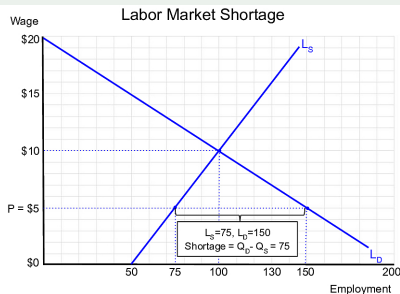
Shortage

9/ 22

Labor Shortage Definition

- When the prevailing price is **below** equilibrium price, quantity demanded exceeds quantity supplied
- Difference is the shortage
- In an unregulated market, market forces will push equilibrium price higher

Graphical Shortage



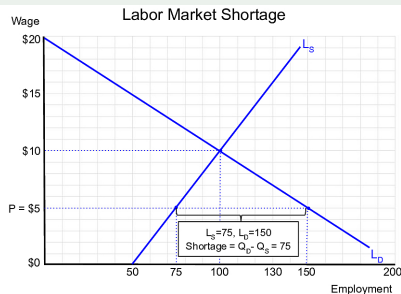
Shortage

9/ 22

Labor Shortage Definition

- When the prevailing price is **below** equilibrium price, quantity demanded exceeds quantity supplied
- Difference is the shortage
- In an unregulated market, market forces will push equilibrium price higher

Graphical Shortage



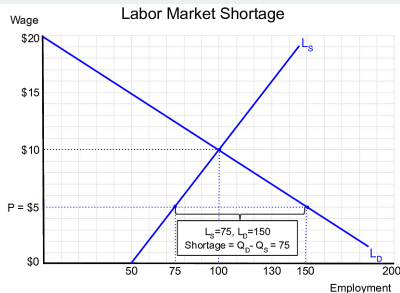
Shortage

9/ 22

Labor Shortage Definition

- When the prevailing price is **below** equilibrium price, quantity demanded exceeds quantity supplied
- Difference is the shortage
- In an unregulated market, market forces will push equilibrium price higher

Graphical Shortage



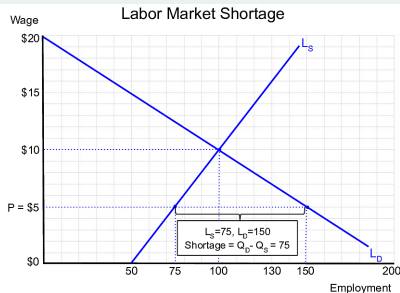
Shortage

9/ 22

Labor Shortage Definition

- When the prevailing price is **below** equilibrium price, quantity demanded exceeds quantity supplied
- Difference is the shortage
- In an unregulated market, market forces will push equilibrium price higher

Graphical Shortage



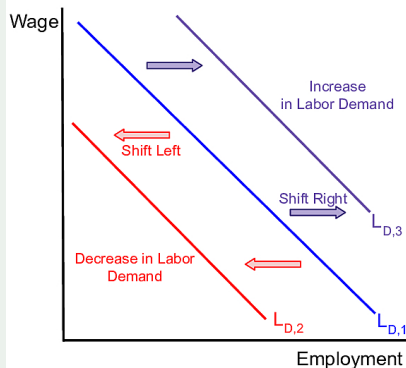
Labor Demand Curve Shifts

10/ 22

Shifts in Whole Demand Curve

- When something *besides the wage* effects labor demand, we say there is a *change or shift in labor demand*.
- Something that **increases** labor demand shifts the labor demand curve to the **right**
- Something that **decreases** labor demand shifts the labor demand curve to the **left**

Shifts in Labor Demand



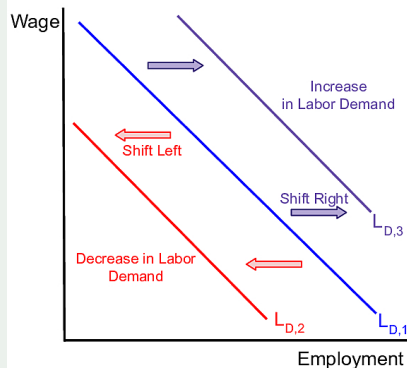
Labor Demand Curve Shifts

10/ 22

Shifts in Whole Demand Curve

- When something *besides the wage* effects labor demand, we say there is a *change or shift in labor demand*.
- Something that **increases** labor demand shifts the labor demand curve to the **right**
- Something that **decreases** labor demand shifts the labor demand curve to the **left**

Shifts in Labor Demand



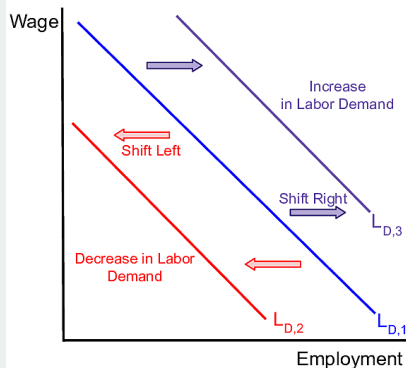
Labor Demand Curve Shifts

10/ 22

Shifts in Whole Demand Curve

- When something *besides the wage* effects labor demand, we say there is a *change or shift in labor demand*.
- Something that **increases** labor demand shifts the labor demand curve to the **right**
- Something that **decreases** labor demand shifts the labor demand curve to the **left**

Shifts in Labor Demand



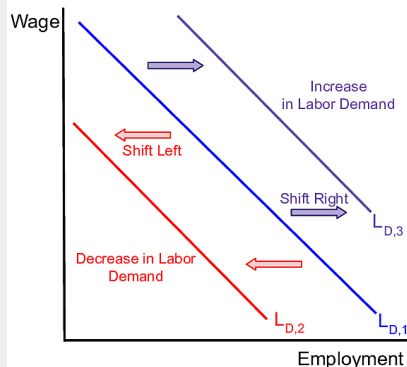
Labor Demand Curve Shifts

10/ 22

Shifts in Whole Demand Curve

- When something *besides the wage* effects labor demand, we say there is a *change or shift in labor demand*.
- Something that **increases** labor demand shifts the labor demand curve to the **right**
- Something that **decreases** labor demand shifts the labor demand curve to the **left**

Shifts in Labor Demand



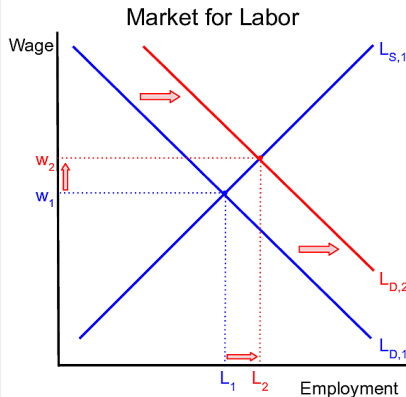
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



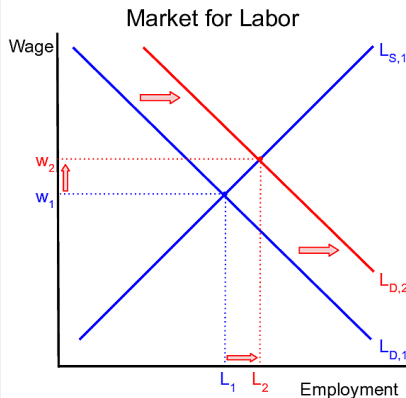
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



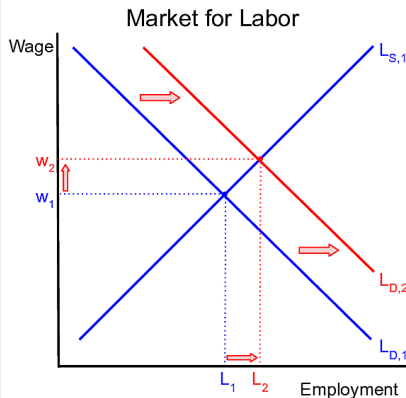
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



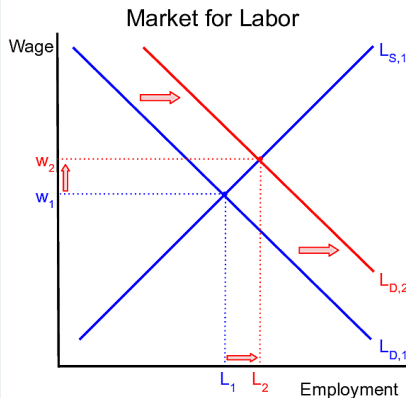
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



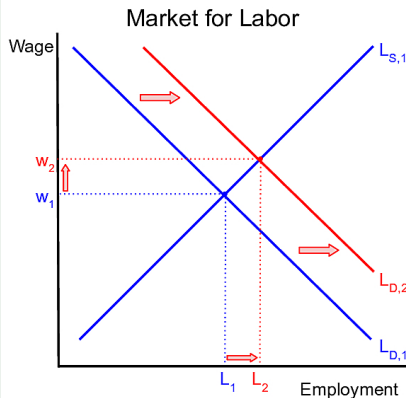
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



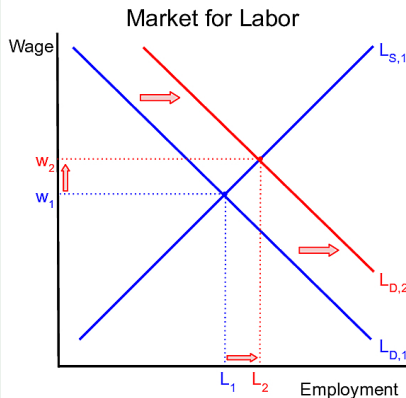
Improvement In Labor Productivity

11/ 22

Mechanism

- If labor productivity improves, workers can produce more goods and services per hour of work
- This generates more revenue for firms per hour of work hired
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases
- Improvements in technology can improve labor productivity **at an aggregate level**

Graphical Equilibrium



Spotlight: Daron Acemoglu & Pascual Restrepo

12/ 22

Automation and New Tasks: How Technology Displaces and Reinstates Labor, *Journal of Economic Perspectives*, Spring 2019.

Displacement + New Tasks

- *Displacement effect*: Automation has led to decreases in demand for certain types of labor, increases in demand for capital
- Examples: Manufacturing, routine tasks in accounting / sales / logistics replaced by software and AI
- Stagnation in labor demand in last decade due to the displacement effect



Dr. Daron Acemoglu (left)
Massachusetts Institute of Technology



Dr. Pascual Restrepo (right)
Boston University

Spotlight: Daron Acemoglu & Pascual Restrepo

13/ 22

Automation and New Tasks: How Technology Displaces and Reinstates Labor, *Journal of Economic Perspectives*, Spring 2019.

Displacement + New Tasks

- *Productivity effect*: Automation has also led to creation of new tasks, increase in demand for other types of labor
- Computer programming, information systems design, cyber-security, product designers
- Explored both effects in industrial revolution and modern automation
- No one effect always dominates the other



Dr. Daron Acemoglu (left)
Massachusetts Institute of Technology



Dr. Pascual Restrepo (right)
Boston University

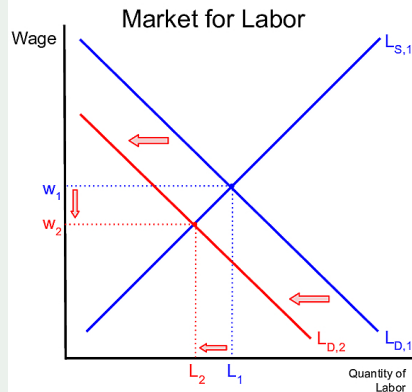
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



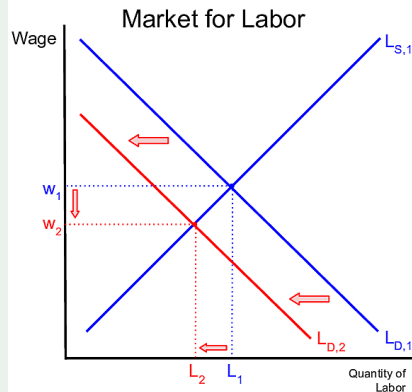
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



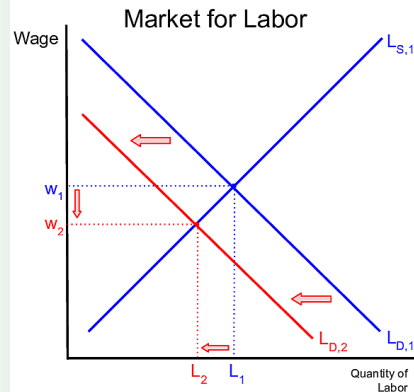
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



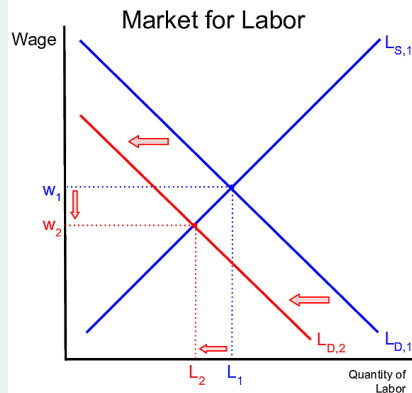
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



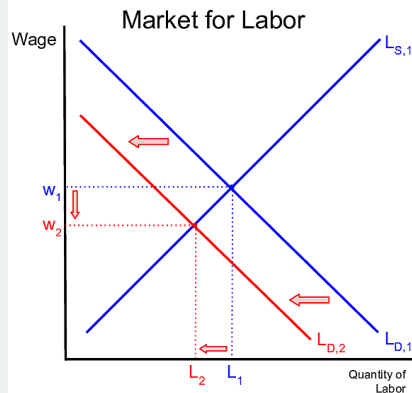
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



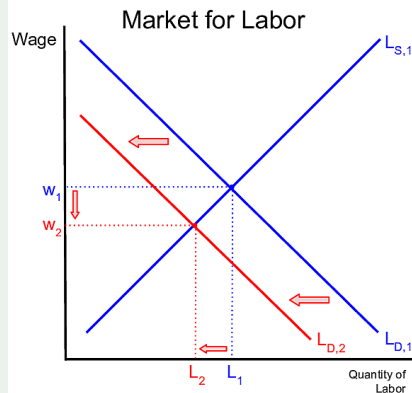
Destruction of Capital Stock

14/ 22

Mechanism

- Capital complements labor and makes labor more productive
- Suppose a natural disaster leads to a destruction of capital stock
- Less capital stock leads to lower labor productivity and lower labor demand
- This will **shift labor demand left**
- Equilibrium wage decreases, employment decreases

Graphical Equilibrium



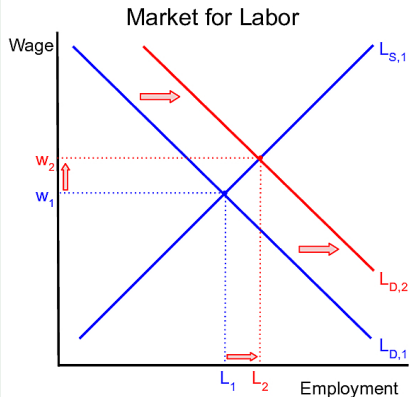
Increase in Demand for Goods and Services

15 / 22

Mechanism

- Labor is a **derived demand**, demand depends positively on the demand for the goods and services the workers produce
- Suppose consumer demand for goods and services increases
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases

Graphical Equilibrium



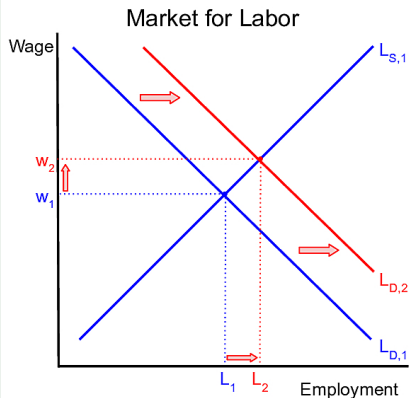
Increase in Demand for Goods and Services

15 / 22

Mechanism

- Labor is a **derived demand**, demand depends positively on the demand for the goods and services the workers produce
- Suppose consumer demand for goods and services increases
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases

Graphical Equilibrium



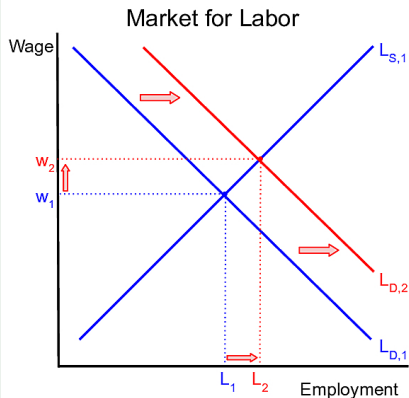
Increase in Demand for Goods and Services

15 / 22

Mechanism

- Labor is a **derived demand**, demand depends positively on the demand for the goods and services the workers produce
- Suppose consumer demand for goods and services increases
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases

Graphical Equilibrium



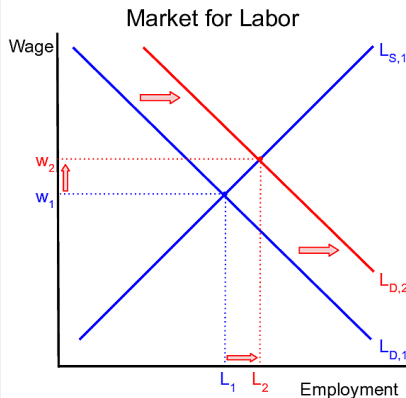
Increase in Demand for Goods and Services

15 / 22

Mechanism

- Labor is a **derived demand**, demand depends positively on the demand for the goods and services the workers produce
- Suppose consumer demand for goods and services increases
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases

Graphical Equilibrium



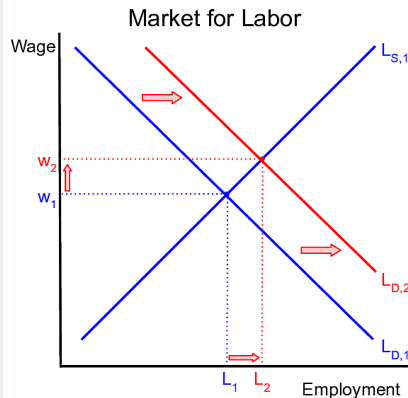
Increase in Demand for Goods and Services

15 / 22

Mechanism

- Labor is a **derived demand**, demand depends positively on the demand for the goods and services the workers produce
- Suppose consumer demand for goods and services increases
- This will **shift labor demand right**
- Equilibrium wage increases, employment increases

Graphical Equilibrium



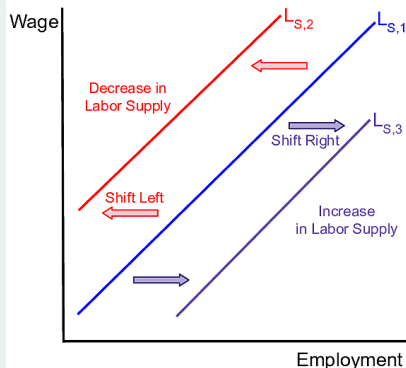
Supply Curve Shifts

16 / 22

Shifts in Whole Supply Curve

- When something *besides the wage* affects how much people are willing and able to work, we say there is a *change or shift in labor supply*.
- Something that **increases** labor supply shifts the labor supply curve to the **right**
- Something that **decreases** labor supply shifts the labor supply curve to the **left**

Shifts in Labor Supply



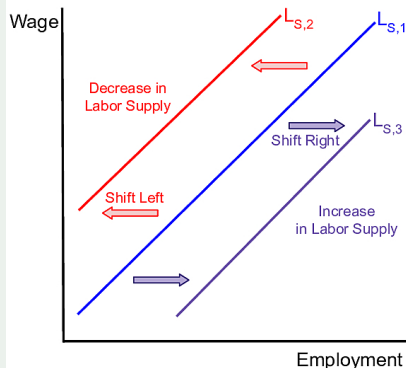
Supply Curve Shifts

16 / 22

Shifts in Whole Supply Curve

- When something *besides the wage* affects how much people are willing and able to work, we say there is a *change or shift in labor supply*.
- Something that **increases** labor supply shifts the labor supply curve to the **right**
- Something that **decreases** labor supply shifts the labor supply curve to the **left**

Shifts in Labor Supply



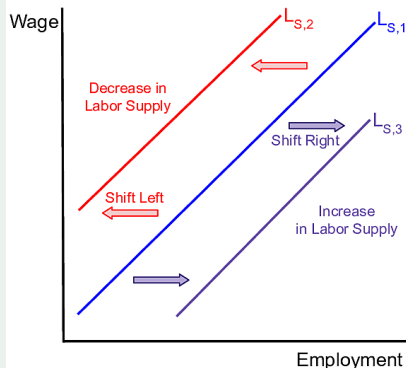
Supply Curve Shifts

16 / 22

Shifts in Whole Supply Curve

- When something *besides the wage* affects how much people are willing and able to work, we say there is a *change or shift in labor supply*.
- Something that **increases** labor supply shifts the labor supply curve to the **right**
- Something that **decreases** labor supply shifts the labor supply curve to the **left**

Shifts in Labor Supply



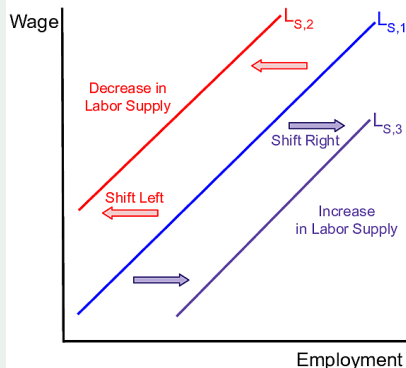
Supply Curve Shifts

16 / 22

Shifts in Whole Supply Curve

- When something *besides the wage* affects how much people are willing and able to work, we say there is a *change or shift in labor supply*.
- Something that **increases** labor supply shifts the labor supply curve to the **right**
- Something that **decreases** labor supply shifts the labor supply curve to the **left**

Shifts in Labor Supply



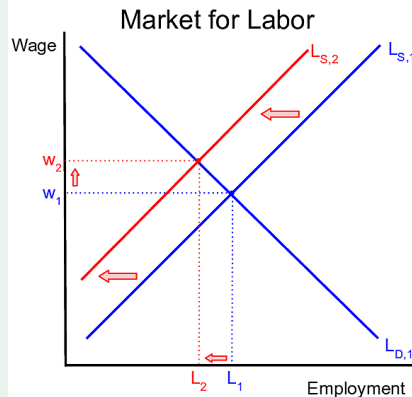
Increase in Retirements

17 / 22

Mechanism

- Suppose a healthy stock market causes more people to decide to retire
- This will **shift labor supply left**
- Equilibrium wage increases, employment decreases

Graphical Equilibrium



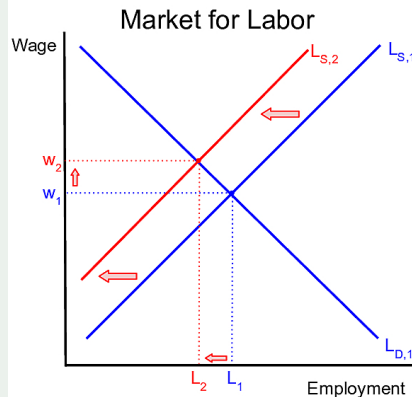
Increase in Retirements

17 / 22

Mechanism

- Suppose a healthy stock market causes more people to decide to retire
- This will **shift labor supply left**
- Equilibrium wage increases, employment decreases

Graphical Equilibrium



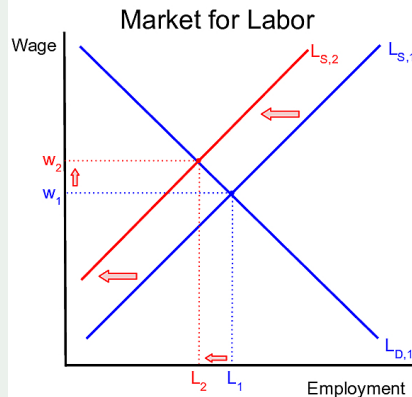
Increase in Retirements

17 / 22

Mechanism

- Suppose a healthy stock market causes more people to decide to retire
- This will **shift labor supply left**
- Equilibrium wage increases, employment decreases

Graphical Equilibrium



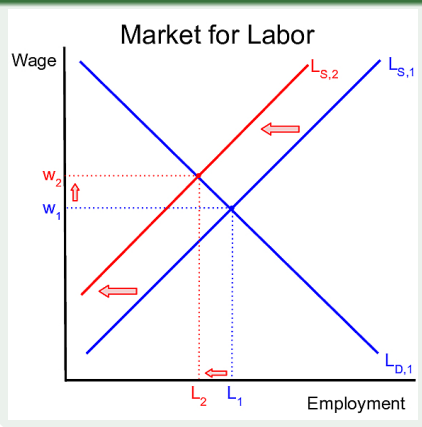
Increase in Retirements

17 / 22

Mechanism

- Suppose a healthy stock market causes more people to decide to retire
- This will **shift labor supply left**
- Equilibrium wage increases, employment decreases

Graphical Equilibrium



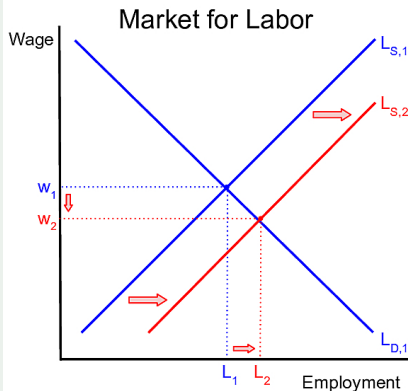
Increase in Labor Force Participation

18 / 22

Mechanism

- U.S. labor force participation rate is about 62% (2021)
- Suppose more people decide to be part of the labor force
- This will **shift labor supply right**
- Equilibrium wage decreases, employment increases

Graphical Equilibrium



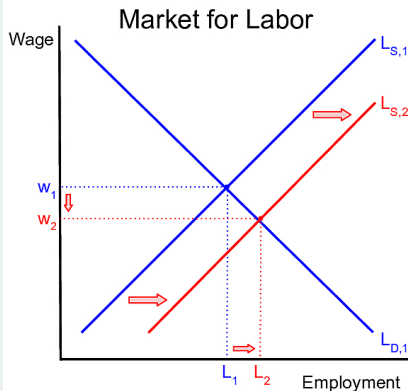
Increase in Labor Force Participation

18/ 22

Mechanism

- U.S. labor force participation rate is about 62% (2021)
- Suppose more people decide to be part of the labor force
- This will **shift labor supply right**
- Equilibrium wage decreases, employment increases

Graphical Equilibrium



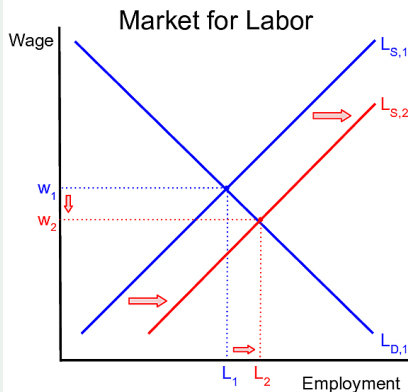
Increase in Labor Force Participation

18/ 22

Mechanism

- U.S. labor force participation rate is about 62% (2021)
- Suppose more people decide to be part of the labor force
- This will **shift labor supply right**
- Equilibrium wage decreases, employment increases

Graphical Equilibrium



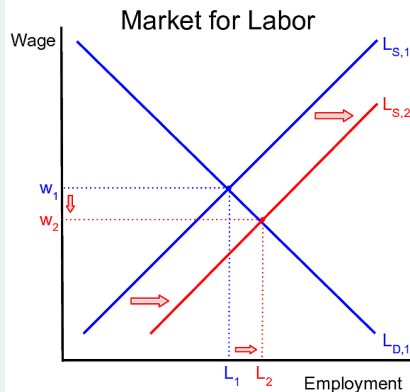
Increase in Labor Force Participation

18/ 22

Mechanism

- U.S. labor force participation rate is about 62% (2021)
- Suppose more people decide to be part of the labor force
- This will **shift labor supply right**
- Equilibrium wage decreases, employment increases

Graphical Equilibrium



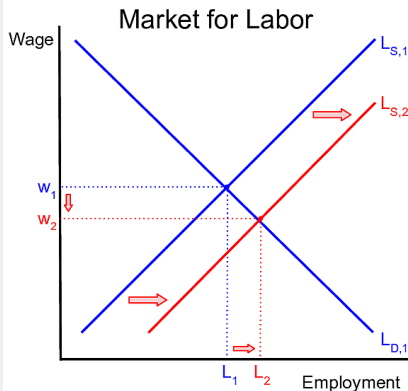
Increase in Labor Force Participation

18/ 22

Mechanism

- U.S. labor force participation rate is about 62% (2021)
- Suppose more people decide to be part of the labor force
- This will **shift labor supply right**
- Equilibrium wage decreases, employment increases

Graphical Equilibrium



Sticky Wages

19 / 22

- Usually, wages do not quickly adjust to new equilibrium levels
- Employers are hesitant to change wages until they recognize market wages have permanently changed
- Labor contracts, policies, salaries often negotiated and changed annually
- Across the board paycuts can hurt employee morale more than layoffs
- Wages can take 3 months - 12 months to adjust to new equilibrium levels

Sticky Wages

19 / 22

- Usually, wages do not quickly adjust to new equilibrium levels
- Employers are hesitant to change wages until they recognize market wages have permanently changed
- Labor contracts, policies, salaries often negotiated and changed annually
- Across the board paycuts can hurt employee morale more than layoffs
- Wages can take 3 months - 12 months to adjust to new equilibrium levels

Sticky Wages

19 / 22

- Usually, wages do not quickly adjust to new equilibrium levels
- Employers are hesitant to change wages until they recognize market wages have permanently changed
- Labor contracts, policies, salaries often negotiated and changed annually
- Across the board paycuts can hurt employee morale more than layoffs
- Wages can take 3 months - 12 months to adjust to new equilibrium levels

Sticky Wages

19 / 22

- Usually, wages do not quickly adjust to new equilibrium levels
- Employers are hesitant to change wages until they recognize market wages have permanently changed
- Labor contracts, policies, salaries often negotiated and changed annually
- Across the board paycuts can hurt employee morale more than layoffs
- Wages can take 3 months - 12 months to adjust to new equilibrium levels

Sticky Wages

19 / 22

- Usually, wages do not quickly adjust to new equilibrium levels
- Employers are hesitant to change wages until they recognize market wages have permanently changed
- Labor contracts, policies, salaries often negotiated and changed annually
- Across the board paycuts can hurt employee morale more than layoffs
- Wages can take 3 months - 12 months to adjust to new equilibrium levels

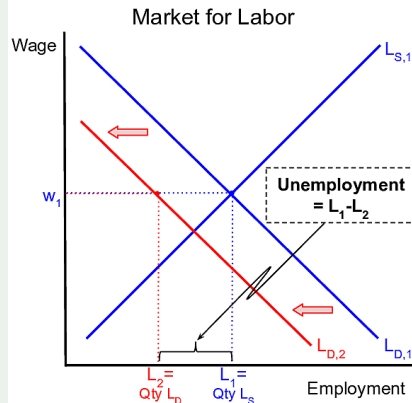
Unemployment with Sticky Wages

20 / 22

Drop in Consumer Spending

- Suppose drop in consumer confidence leads to a drop in consumer spending
- Labor is a derived demand, so **labor demand shifts to the left**
- When wage does not move to new equilibrium level, labor market surplus is created
- Labor market surplus \rightarrow unemployment

Graphical Illustration



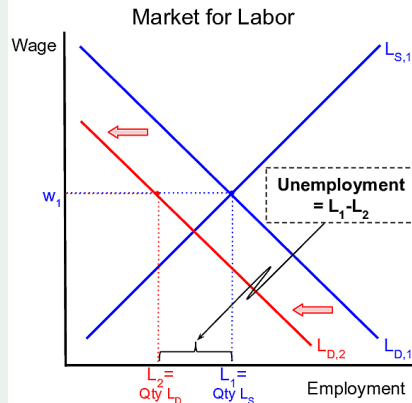
Unemployment with Sticky Wages

20 / 22

Drop in Consumer Spending

- Suppose drop in consumer confidence leads to a drop in consumer spending
- Labor is a derived demand, so **labor demand shifts to the left**
- When wage does not move to new equilibrium level, labor market surplus is created
- Labor market surplus → unemployment

Graphical Illustration



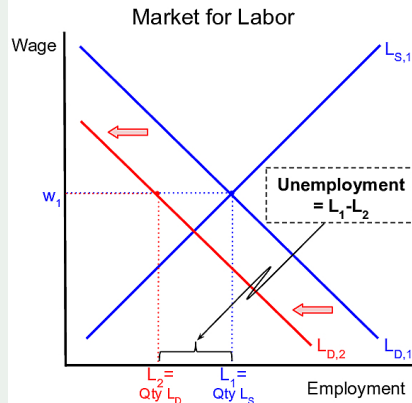
Unemployment with Sticky Wages

20 / 22

Drop in Consumer Spending

- Suppose drop in consumer confidence leads to a drop in consumer spending
- Labor is a derived demand, so **labor demand shifts to the left**
- When wage does not move to new equilibrium level, labor market surplus is created
- Labor market surplus → unemployment

Graphical Illustration



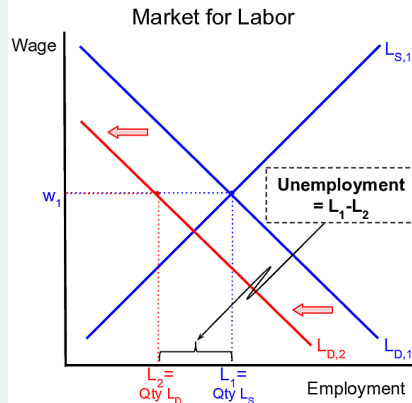
Unemployment with Sticky Wages

20 / 22

Drop in Consumer Spending

- Suppose drop in consumer confidence leads to a drop in consumer spending
- Labor is a derived demand, so **labor demand shifts to the left**
- When wage does not move to new equilibrium level, labor market surplus is created
- Labor market surplus → unemployment

Graphical Illustration



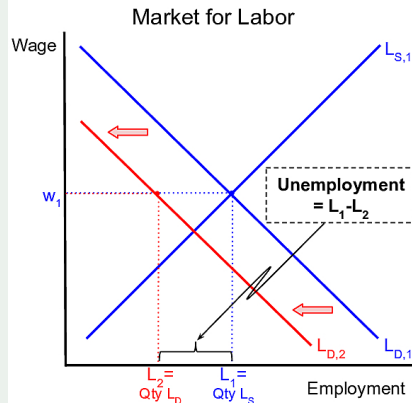
Unemployment with Sticky Wages

20 / 22

Drop in Consumer Spending

- Suppose drop in consumer confidence leads to a drop in consumer spending
- Labor is a derived demand, so **labor demand shifts to the left**
- When wage does not move to new equilibrium level, labor market surplus is created
- Labor market surplus \rightarrow unemployment

Graphical Illustration



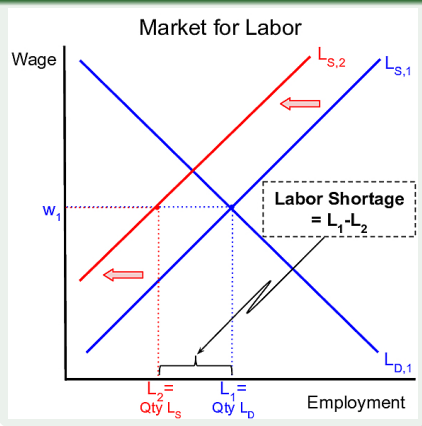
Labor Market Shortage with Sticky Wages

21/ 22

Drop in Labor Force Participation

- Following the COVID recession in 2020, labor force participation dropped from 63% to 61.5%
- Record number of job resignations in 2021:
<https://www.npr.org/2021/06/24/1007914455/as-the-pandemic-recedes-millions-of-workers-are-saying-i-quit>
- **Labor supply shifts to the left**
- When wage does not move to new equilibrium level, labor market shortage is created

Graphical Illustration



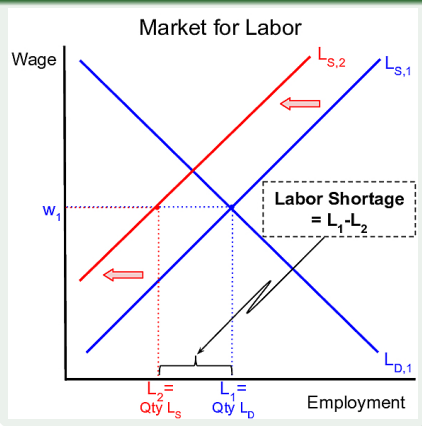
Labor Market Shortage with Sticky Wages

21/ 22

Drop in Labor Force Participation

- Following the COVID recession in 2020, labor force participation dropped from 63% to 61.5%
- Record number of job resignations in 2021:
<https://www.npr.org/2021/06/24/1007914455/as-the-pandemic-recedes-millions-of-workers-are-saying-i-quit>
- Labor supply shifts to the left
- When wage does not move to new equilibrium level, labor market shortage is created

Graphical Illustration



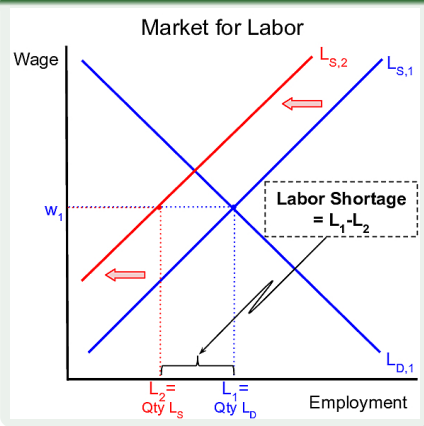
Labor Market Shortage with Sticky Wages

21/ 22

Drop in Labor Force Participation

- Following the COVID recession in 2020, labor force participation dropped from 63% to 61.5%
- Record number of job resignations in 2021:
<https://www.npr.org/2021/06/24/1007914455/as-the-pandemic-recedes-millions-of-workers-are-saying-i-quit>
- Labor supply shifts to the left
- When wage does not move to new equilibrium level, labor market shortage is created

Graphical Illustration



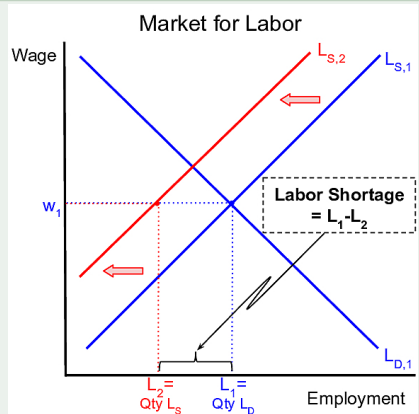
Labor Market Shortage with Sticky Wages

21/ 22

Drop in Labor Force Participation

- Following the COVID recession in 2020, labor force participation dropped from 63% to 61.5%
- Record number of job resignations in 2021:
<https://www.npr.org/2021/06/24/1007914455/as-the-pandemic-recedes-millions-of-workers-are-saying-i-quit>
- **Labor supply shifts to the left**
- When wage does not move to new equilibrium level, labor market shortage is created

Graphical Illustration



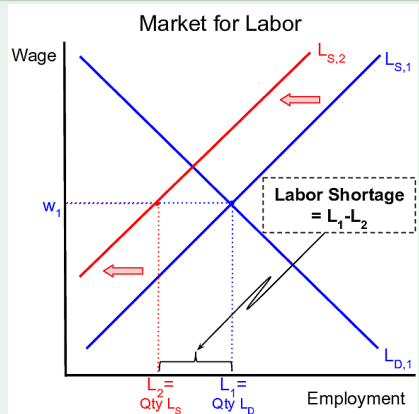
Labor Market Shortage with Sticky Wages

21/ 22

Drop in Labor Force Participation

- Following the COVID recession in 2020, labor force participation dropped from 63% to 61.5%
- Record number of job resignations in 2021:
<https://www.npr.org/2021/06/24/1007914455/as-the-pandemic-recedes-millions-of-workers-are-saying-i-quit>
- **Labor supply shifts to the left**
- When wage does not move to new equilibrium level, labor market shortage is created

Graphical Illustration



Reading and Exercises

22 / 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.

Reading and Exercises

22 / 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.

Reading and Exercises

22/ 22

- External reading posted on Canvas: Taylor, *Principles of Economics 2e*, Chapter 4
- **Canvas Quiz due Wednesday 11:59 PM.**
Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
- **Homework/In-class Exercise due Friday 11:59 PM.** We will work together in class on Thursday.