



Unemployment

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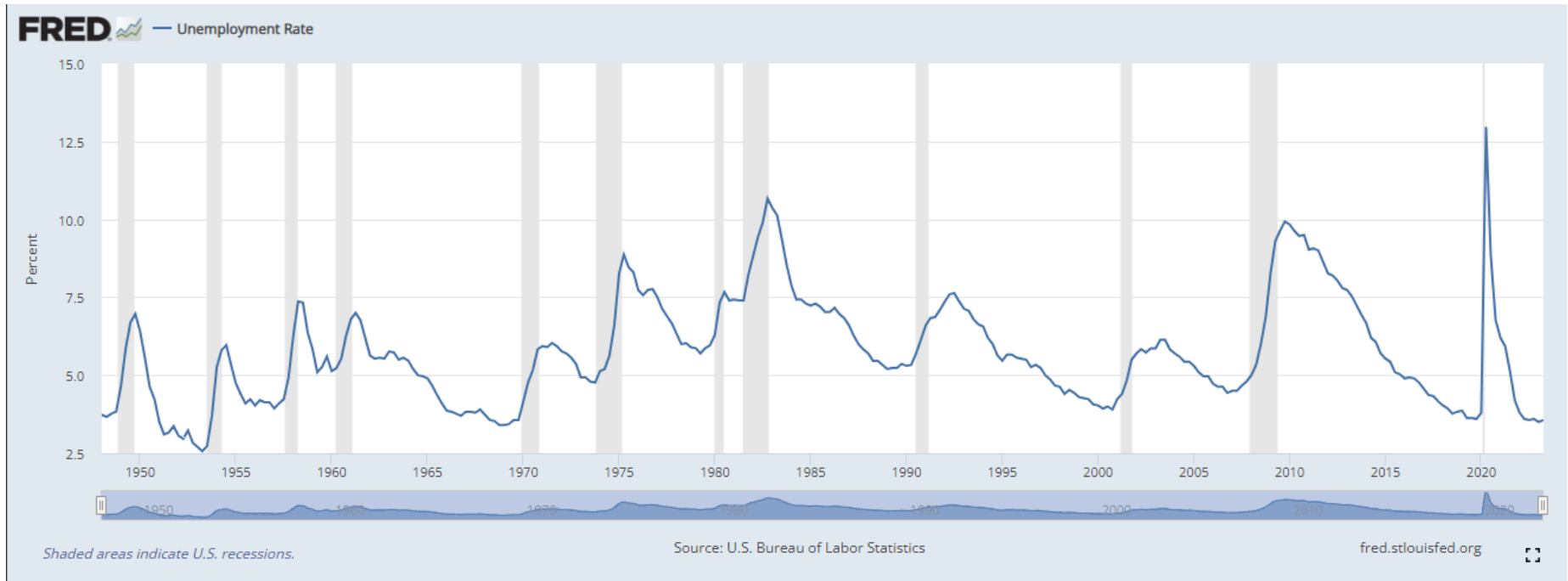
07/14/2023



Overview

- Measure of unemployment
- Some drawbacks of unemployment rate
- Reasons for the natural rate of unemployment (Why there are always people unemployed?)
 - Frictional unemployment
 - Structural unemployment

Data at a glance



Data at a glance



Identifying Unemployment

- **Employed**

- People who work
- Kamila is an unpaid worker in her family's restaurant. The Bureau of Labor Statistics counts Kamila as “employed”

- **Unemployed**

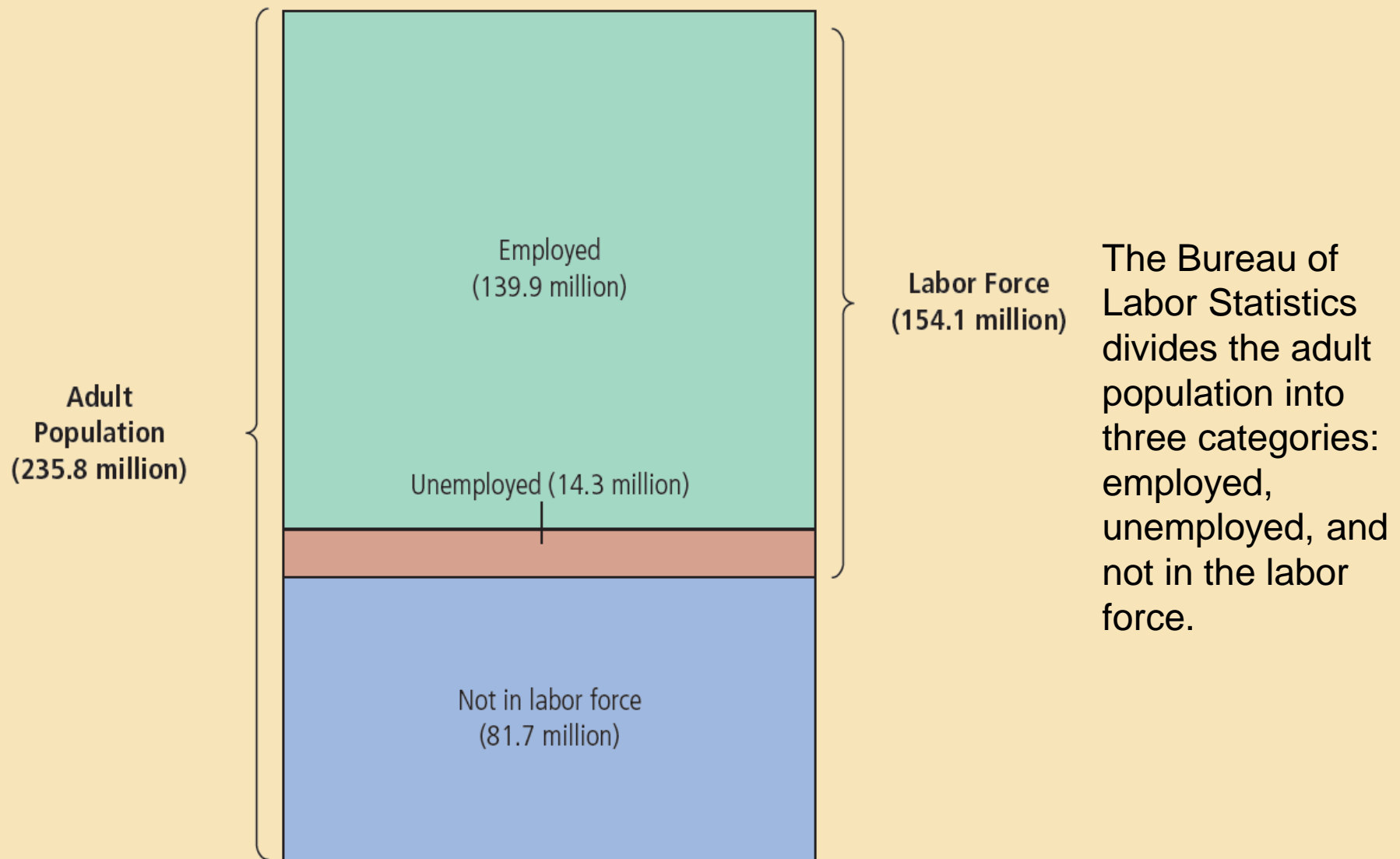
- Not employed
 - Want to work
 - Looking for a job (failed to find a job during last four weeks)

- **Not in the labor force**

- Not employed
- Not unemployed

Figure 1

The Breakdown of the Population in 2009



The Bureau of Labor Statistics divides the adult population into three categories: employed, unemployed, and not in the labor force.

Identifying Unemployment

- **Labor force**

- Total number of workers, employed and unemployed
= Number of employed + Number of unemployed

- **Unemployment rate**

- Percentage of labor force that is unemployed

$$\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{Labor force}} \times 100\%$$

Identifying Unemployment

- **Labor-force participation rate**

- Percentage of the total adult population that is in the labor force
- Fraction of the population that has chosen to participate in the labor market

$$\text{Labor-force participation rate} = \frac{\text{Labor force}}{\text{Adult population}} \times 100$$

Table 1

The Labor-Market Experiences of Various Demographic Groups

Demographic Group	Unemployment Rate	Labor-Force Participation Rate
Adults (ages 20 and older)		
White, male	8.8%	75.3%
White, female	6.8	60.4
Black, male	16.3	69.6
Black, female	11.5	63.4
Teenagers (ages 16–19)		
White, male	25.2	40.3
White, female	18.4	40.9
Black, male	46.0	26.4
Black, female	33.4	27.9

This table shows the unemployment rate and the labor-force participation rate of various groups in the U.S. population for 2009.

Identifying Unemployment

- **Labor-market experiences**
 - Women ages 20 and older
 - Lower rates of labor-force participation than men
 - Once in the labor force
 - Men and women - women have lower rates of unemployment

Identifying Unemployment

- **Labor-market experiences**
 - Blacks ages 20 and older
 - Similar rates of labor-force participation as whites
 - Much higher rates of unemployment
 - Teenagers
 - Lower rates of labor-force participation
 - Much higher rates of unemployment than older workers

Identifying Unemployment

- **Natural rate of unemployment**

- Normal rate of unemployment
- Around which the unemployment rate fluctuates

- **Cyclical unemployment**

- Deviation of unemployment from its natural rate

$$\text{Unemployment rate (U)} = \text{Natural} + \text{Cyclical}$$

Exercise 1

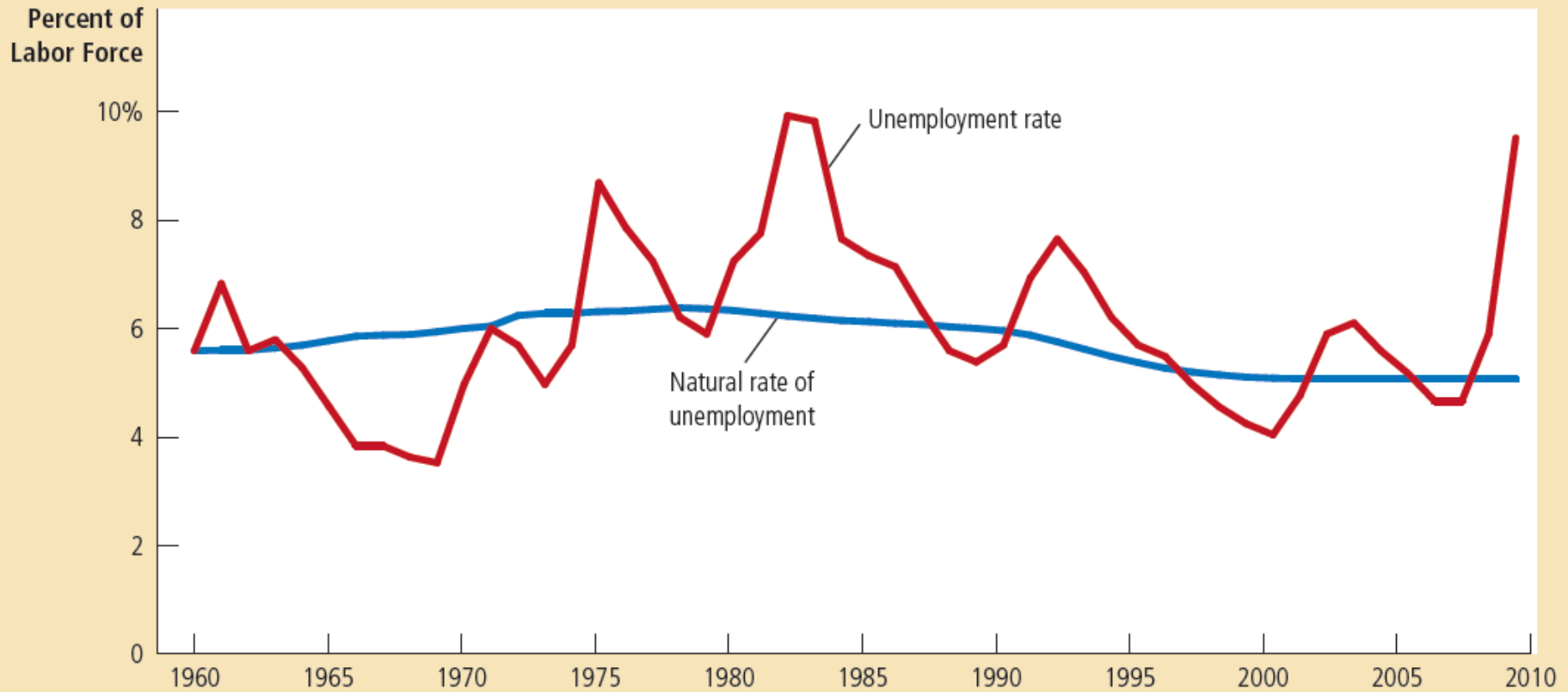
- An economy's natural rate of unemployment is the
 - a. lowest rate of unemployment the economy can achieve.
 - b. rate associated with the highest possible level of GDP.
 - c. unemployment created by wages set above the equilibrium level.
 - d. amount of unemployment that does not go away on its own.

Exercise 2

- Cyclical unemployment refers to
 - a. how often a worker is likely to be employed during her lifetime.
 - b. short-run fluctuations around the natural rate of unemployment.
 - c. the portion of unemployment created by wages set above the equilibrium level.
 - d. changes in unemployment due to changes in the structural rate of unemployment.

Figure 2

Unemployment Rate since 1960



This graph uses annual data on the U.S. unemployment rate to show the percentage of the labor force without a job. The natural rate of unemployment is the normal level of unemployment around which the unemployment rate fluctuates.

Identifying Unemployment

- **Official unemployment rate**
 - Useful statistics for diagnosing the economy situation
 - Imperfect measure of joblessness
 - hard to identify unemployed and not in the labor force (confusing or measurement error)
- **Movements into and out of the labor force**
 - Common
 - More than **one-third** of unemployed
 - Recent entrants into the labor force

Identifying Unemployment

- **Unemployment**

- Not all unemployment ends with the job seeker finding a job
 - Half of all spells of unemployment
 - End when the unemployed leaves the labor force
 - lower unemployment rate: More out of labor force

- **Some of those who report being unemployed**

- May not be trying hard to find a job (out of labor force)
 - Want to qualify for a government help
 - Working but paid “under the table” (employed)

Exercise 3

- Suppose that a large number of people who used to work or seek work no longer do either. Other things the same, this makes
 - a. the number of people unemployed rise but does not change the labor force.
 - b. the number of people unemployed rise but makes the labor force fall.
 - c. both the number of people unemployed and in the labor force fall.
 - d. the number of people unemployed fall but does not change the labor force.

Identifying Unemployment

- Some of those who are out of labor force
 - May want to work
 - Discouraged workers
- Discouraged workers
 - Individuals who would like to work
 - Have given up looking for a job
 - Discouraged workers are out of labor force, but they reflect joblessness.
 - They do not show up when calculating unemployment rate

Table 2

Alternative Measures of Labor Underutilization

Measure and Description		Rate
U-1	Persons unemployed fifteen weeks or longer, as a percent of the civilian labor force (includes only very long-term unemployed)	5.8%
U-2	Job losers and persons who have completed temporary jobs, as a percent of the civilian labor force (excludes job leavers)	6.0
U-3	Total unemployed, as a percent of the civilian labor force (official unemployment rate)	9.9
U-4	Total unemployed, plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	10.6
U-5	Total unemployed plus all marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers	11.3
U-6	Total unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers	17.1

The table shows various measures of joblessness for the U.S. economy. The data are for April 2010.

Note: The Bureau of Labor Statistics defines terms as follows:

- *Marginally attached workers* are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past.
- *Discouraged workers* are marginally attached workers who have given a job-market-related reason for not currently looking for a job.
- *Persons employed part-time for economic reasons* are those who want and are available for full-time work but have had to settle for a part-time schedule.

Identifying Unemployment

- How long are the unemployed without work?

-----long-term unemployment are more serious

- Most spells of unemployment are short
- Most unemployment observed at any given time is long-term
- Most people who become unemployed
 - Will soon find jobs

Identifying Unemployment

- **How long are the unemployed without work?**
 - Most of the economy's unemployment problem
 - Attributable to the relatively few workers who are jobless for long periods of time

Identifying Unemployment

- **Unemployment rate**
 - Never falls to zero
 - Fluctuates around the natural rate of unemployment
- **Frictional unemployment**
 - It takes time for workers to search for the jobs that best suit their tastes and skills
 - Explain relatively short spells of unemployment

More on Frictional unemployment

- The result of changes in the demand for labor among different firms.
- Change in the composition of demand among industries or regions (sectoral shifts)
- The economy is always changing
- Asymmetric information

Identifying Unemployment

- **Structural unemployment**

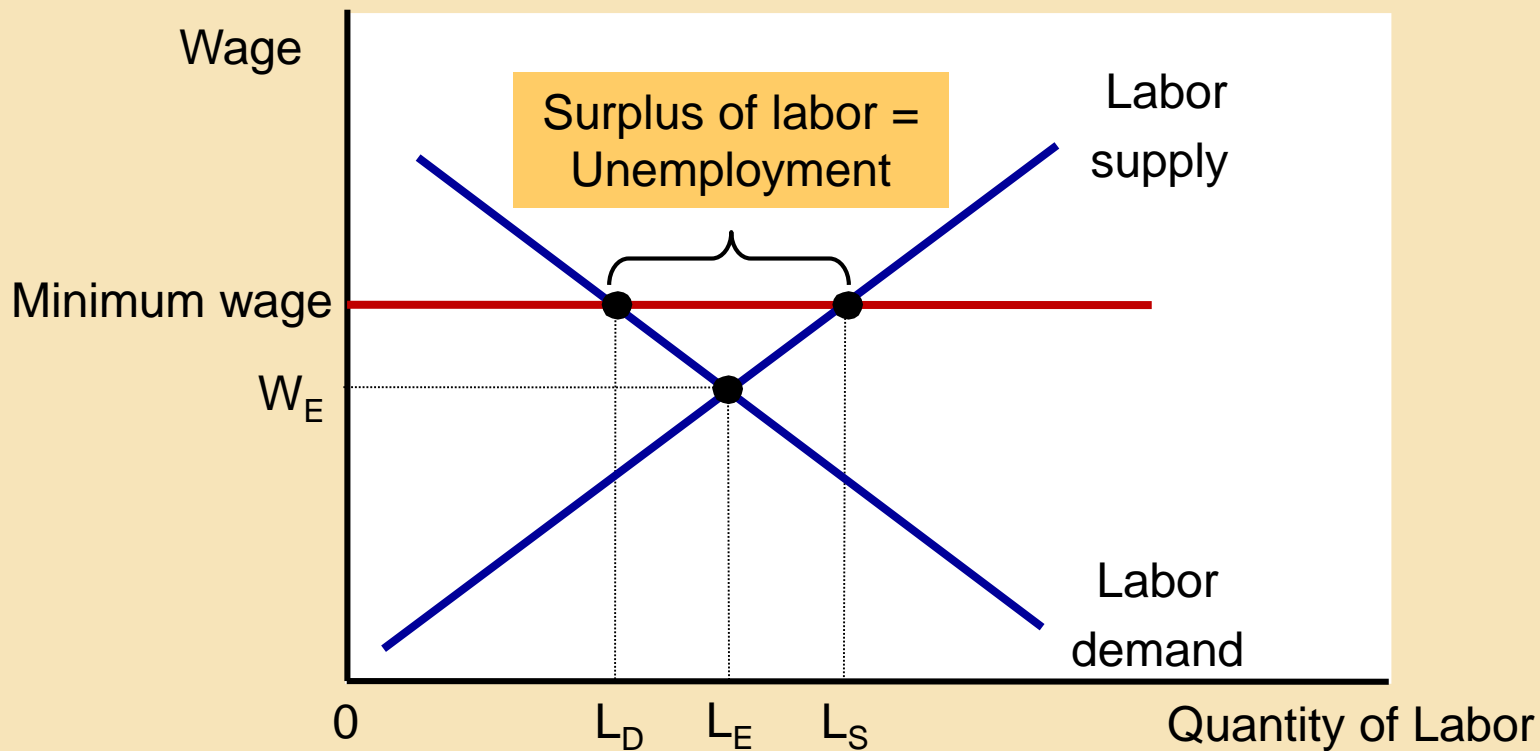
- Results because the number of jobs available in some labor markets
 - Is insufficient to provide a job for everyone who wants one
- Explains longer spells of unemployment
- Results when wages are set above the equilibrium
 - Minimum-wage laws, unions, and efficiency wages

Minimum-Wage Laws

- **Structural unemployment**
 - Number of jobs **being insufficient**
- **Minimum-wage laws**
 - Can cause unemployment
 - Forces the wage to remain above the equilibrium level
 - Higher quantity of labor supplied
 - Smaller quantity of labor demanded
 - Surplus of labor – unemployment

Figure 4

Unemployment from a Wage above the Equilibrium Level



In this labor market, the wage at which supply and demand balance is W_E . At this equilibrium wage, the quantity of labor supplied and the quantity of labor demanded both equal L_E . By contrast, if the wage is forced to remain above the equilibrium level, perhaps because of a minimum-wage law, the quantity of labor supplied rises to L_S , and the quantity of labor demanded falls to L_D . The resulting surplus of labor, $L_S - L_D$, represents unemployment.

Minimum-Wage Laws

- Wages may be kept above equilibrium level
 - Minimum-wage laws
 - Unions
 - Efficiency wages
- If the wage is kept above the equilibrium level
 - Result: unemployment



谢谢!

THANK YOU!

