


N. Gregory Mankiw

Principles of
Macroeconomics
Sixth Edition



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Unemployment

Premium
PowerPoint
Slides by
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*In this chapter,
look for the answers to these questions:*

- How is unemployment measured?
- What is the “natural rate of unemployment”?
- Why are there always some people unemployed?
- How is unemployment affected by unions and minimum wage laws?
- What is the theory of efficiency wages, and how does it help explain unemployment?

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Labor Force Statistics

- Produced by Bureau of Labor Statistics (BLS), in the U.S. Dept. of Labor
- Based on regular survey of 60,000 households
- Based on “adult population” (16 yrs or older)

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Labor Force Statistics

BLS divides population into 3 groups:

- **Employed:** paid employees, self-employed, and unpaid workers in a family business
- **Unemployed:** people not working who have looked for work during previous 4 weeks
- **Not in the labor force:** everyone else

The **labor force** is the total # of workers, including the employed and unemployed.

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Labor Force Statistics

Unemployment rate ("u-rate"):

% of the labor force that is unemployed

$$u\text{-rate} = 100 \times \frac{\# \text{ of unemployed}}{\text{labor force}}$$

Labor force participation rate:

% of the adult population that is in the labor force

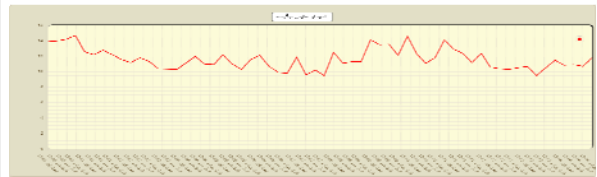
$$\text{labor force participation rate} = 100 \times \frac{\text{labor force}}{\text{adult population}}$$

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مرکز آمار ایران

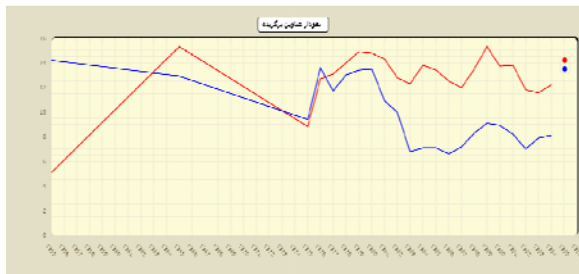
- نرخ بیکاری عبارت است از نسبت تعداد جمعیت بیکار (۱۰ ساله و بیشتر) (جوای کار) به کل جمعیت فعال (۱۰ ساله و بیشتر) (شاغل و بیکار) ضرب در ۱۰۰.
- فرد در سن کار که در طول زمان مرجع حداقل یک ساعت در شغل خود فعالیت داشته و یا بنا به دلایلی ترک موقت از شغل دارد. برای کارکنان فامیلی بدون مزدی که در طول زمان مرجع فعالیت شغلی انجام ندادند، ترک موقت از شغل معنا ندارد. (۱۳۹۳)

نرخ بیکاری، فصلی



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نرخ بیکاری مناطق شهری و روستایی، سالانه، از ۱۳۵۵ تا ۱۳۹۴



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ACTIVE LEARNING 1

Calculate labor force statistics

Compute the labor force, u-rate, adult population, and labor force participation rate using this data:

Adult population of the U.S. by group, April 2011

# of employed	139.7 million
# of unemployed	13.7 million
not in labor force	85.7 million

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ACTIVE LEARNING **1**

Answers

$$\begin{aligned} \text{Labor force} &= \text{employed} + \text{unemployed} \\ &= 139.7 + 13.7 \\ &= \mathbf{153.4 \text{ million}} \end{aligned}$$

$$\begin{aligned} \text{U-rate} &= 100 \times (\text{unemployed})/(\text{labor force}) \\ &= 100 \times 13.7/153.4 \\ &= \mathbf{8.9\%} \end{aligned}$$

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ACTIVE LEARNING **1**

Answers

$$\begin{aligned} \text{Population} &= \text{labor force} + \text{not in labor force} \\ &= 153.4 + 85.7 \\ &= \mathbf{239.1} \end{aligned}$$

$$\begin{aligned} \text{LF partic. rate} &= 100 \times (\text{labor force})/(\text{population}) \\ &= 100 \times 153.4/239.1 \\ &= \mathbf{64.2\%} \end{aligned}$$

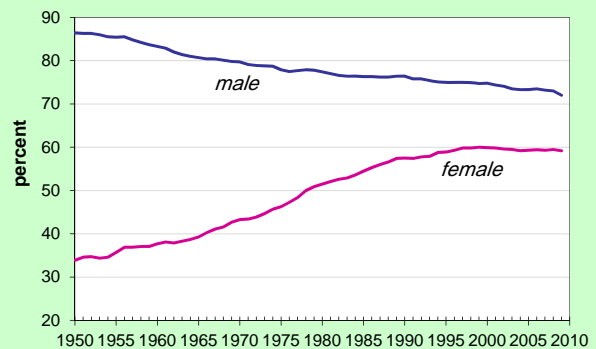
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Labor Force Statistics for Different Groups

- The BLS publishes these statistics for demographic groups within the population.
- These data reveal widely different labor market experiences for different groups.

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LF Participation Rates, 1950–2009



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What Does the U-Rate Really Measure?

- The u-rate is not a perfect indicator of joblessness or the health of the labor market:
 - It does not distinguish between full-time and part-time work, or people working part time because full-time jobs not available.
 - Some people misreport their work status in the BLS survey.
- Despite these issues, the u-rate is still a very useful barometer of the labor market & economy.

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Cyclical Unemployment vs. the Natural Rate

There's always some unemployment, though the u-rate fluctuates from year to year.

Natural rate of unemployment

- the normal rate of unemployment around which the actual unemployment rate fluctuates

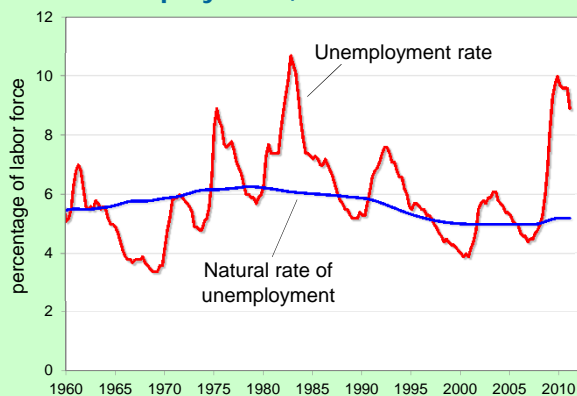
Cyclical unemployment

- the deviation of unemployment from its natural rate
- associated with business cycles, which we'll study in later chapters

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U.S. Unemployment, 1960–2011



Explaining the Natural Rate: An Overview

Even when the economy is doing well, there is always some unemployment, including:

Frictional unemployment

- occurs when workers spend time searching for the jobs that best suit their skills and tastes
- short-term for most workers

Structural unemployment

- occurs when there are fewer jobs than workers
- When the labor market is out of equilibrium

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Explaining the Natural Rate: An Overview

Structural unemployment

Usually occurs as a consequence of a shift in industrial composition

Workers with skills for the old industrial mix don't have skills that are appropriate for the new mix

“Skills mismatch”

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Job Search

- Workers have different tastes & skills, and jobs have different requirements.
- **Job search** is the process of matching workers with appropriate jobs.
- **Sectoral shifts** are changes in the composition of demand across industries or regions of the country.
- Such shifts displace some workers, who must search for new jobs appropriate for their skills & tastes.
- The economy is always changing, so some frictional unemployment is inevitable.

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Public Policy and Job Search

- *Govt employment agencies* provide information about job vacancies to speed up the matching of workers with jobs.
- *Public training programs* aim to equip workers displaced from declining industries with the skills needed in growing industries.

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Unemployment Insurance

- **Unemployment insurance (UI):** a govt program that partially protects workers' incomes when they become unemployed
- UI increases frictional unemployment.

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Unemployment Insurance

Benefits of UI:

- Reduces uncertainty over incomes
- Gives the unemployed more time to search, resulting in better job matches and thus higher productivity

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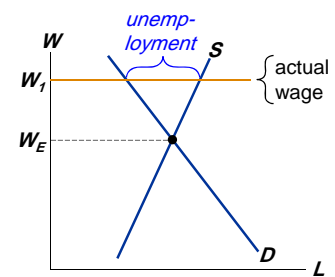
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Explaining Structural Unemployment

Structural unemployment occurs when not enough jobs to go around.

Occurs when wage is kept above eq'm.

There are one surprising, one weak and two bad reasons for this...



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1. Minimum-Wage Laws

- Here's the weak reason
- The min. wage may exceed the eq'm wage for the least skilled or experienced workers, causing structural unemployment.
- But this group is a small part of the labor force, so the minimum wage can't explain most unemployment.

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2. Unions

- **Here's a bad reason:**
- **Union:** a worker association that bargain **collectively** with employers over wages, benefits, and working conditions
- Unions exert their market power to negotiate higher wages for workers.
- The typical union worker earns 20% higher wages and gets more benefits than a nonunion worker for the same type of work.

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2. Unions

- The typical union worker in the U.S. earns 20% higher wages and gets more benefits than a nonunion worker for the same type of work.
- The typical union worker in the U.S. is also about 20% more productive than a nonunion worker doing the same type of work.
- These comparisons might not hold for public sector workers or for unions in other countries

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2. Unions

- If unions raise the wage above equilibrium, quantity of labor demanded falls and unemployment results.
- “Insiders” – workers who remain employed, are better off
- “Outsiders” – workers who lose their jobs, are worse off
- Some outsiders go to non-unionized labor markets, which increases labor supply and reduces wages in those markets.

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2. Unions

Are unions good or bad? Economists disagree.

- Critics:
Unions are cartels. They raise wages above equilibrium, which causes unemployment and/or depresses wages in non-union labor markets.
- Advocates:
Unions counter the market power of large firms, make firms more responsive to workers' concerns.

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3. Efficiency Wages

- Here's the second bad reason:
- The theory of **efficiency wages**:
Firms voluntarily pay above-equilibrium wages to boost worker productivity.
- Different versions of efficiency wage theory suggest different reasons why firms pay high wages.

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3. Efficiency Wages

Four reasons why firms might pay efficiency wages:

1. Worker health

In less developed countries, poor nutrition is a common problem. Paying higher wages allows workers to eat better, makes them healthier, more productive.

2. Worker turnover

Hiring & training new workers is costly. Paying high wages gives workers more incentive to stay, reduces turnover.

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3. Efficiency Wages

Four reasons why firms might pay efficiency wages:

3. Worker quality

Offering higher wages attracts better job applicants, increases quality of the firm's workforce.

4. Worker effort

Workers can work hard or shirk. Shirkers are fired if caught. Is being fired a good deterrent?

Depends on how hard it is to find another job.

If market wage is above eq'm wage, there aren't enough jobs to go around, so workers have more incentive to work not shirk.

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4. Nominal downward wage rigidity

- The surprising reason for structural unemployment?
- Workers HATE to take wage cuts.
- They just HATE them.
- There are reasons for this, but they're too complicated for this course
- So when labor demand declines, employed workers resist wage cuts
- The only alternative is to fire workers
- That's where structural unemployment comes from

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Explaining the Natural Rate of Unemployment: A Summary

The natural rate of unemployment consists of

- *frictional unemployment*
 - It takes time to search for the right jobs
 - Occurs even if there are enough jobs to go around
- *structural unemployment*
 - When wage is above eq'm, not enough jobs
 - Due to min. wages, labor unions, efficiency wages

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SUMMARY

- The unemployment rate is the percentage of those who would like to work who do not have jobs.
- Unemployment and labor force participation vary widely across demographic groups.
- The natural rate of unemployment is the normal rate of unemployment around which the actual rate fluctuates. Cyclical unemployment is the deviation of unemployment from its natural rate and is connected to short-term economic fluctuations.

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SUMMARY

- The natural rate includes frictional unemployment and structural unemployment.
- Frictional unemployment occurs when workers take time to search for the right jobs.
- Structural unemployment occurs when above-equilibrium wages result in a surplus of labor.
- Three reasons for above-equilibrium wages include minimum wage laws, unions, and efficiency wages.

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