PRINCIPLES OF ECONOMICS 2e

Chapter 21 Unemployment





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CH.21 OUTLINE



- 21.1: Unemployment Rate: Defined and Computed
- 21.2: Patterns of Unemployment
- 21.3: Causes of SR Changes in Unemployment
- 21.4: Causes of LR Changes in Unemployment

Soup Kitchens

Soup Kitchens in the Great Depression served free meals to hungry men, women and children. President Hoover believed in "rugged individualism" and initially did not believe that it was government's place to provide aid. That left private citizens, organizations, and charities such as the Red Cross to develop soup kitchens to help the hungry. Before 1935, as unemployed soared to over 25%, Soup Kitchens sprang up in every major town and city in America.



Image source: https://www.american-historama.org/1929-1945-depression-ww2-era/soup-kitchens.htm

21.1 Unemployment Rate: Defined and Computed



- The adult population consists of:
 - Employed: currently working for pay.
 - **Unemployed:** out of work and actively looking for a job.
 - Out of the labor force: not working and not looking for work.
 - whether or not they want employment!
 - also termed "not in the labor force"
- Labor force: the number of employed plus the unemployed.

•People with jobs are *employed*.

•People who are jobless, looking for a job, and available for work are *unemployed*.

•The *labor force* is made up of the employed and the unemployed.

•People who are neither employed nor unemployed are *not in the labor force*.

For more details: <u>https://www.bls.gov/cps/cps_htgm.htm</u>

Adult Civilian Non-Institutional Population

The adult civilian noninstitutional population (CNP) is either employed, unemployed, or out of the labor force.

Adult = age 16 and older.

The civilian noninstitutional population excludes:

- active duty members of the U.S. Armed Forces
- Institutionalized individuals (in prisons, jails, other correctional institutions and detention centers, and residential care facilities (e.g., nursing homes)

Labor Force

Labor force = members of the CNP that are either:

- Employed, or
- Unemployed.

Unemployed (details)

People are *unemployed* if they are:

- not employed, and
- available for work, **and**
- actively searching for work (or expecting to be recalled)

Labor Force Participation Rate

 Labor force participation rate: the percentage of adults (CNP) who are employed or are unemployed and looking for a job.

> Labor force participation rate = <u>labor force</u> x 100 adult population

 Unemployment rate: the percentage of adults (CNP) who are in the labor force but who do not have jobs.

> Unemployment rate = <u>Unemployed people</u> x 100 Labor force

Employment Situation Data

The Bureau of Labor Statistics (BLS) publishes and Employment Situation Summary each month.

The household employment data are in Table A.

US Civilian Noninstitutional Population: Employed, Unemployed, and Out of the Labor Force

US Civilian Noninstitutional Population (268438k in June 2024)



- The total adult, working-age population in June 2024 was 268.4 million.
- The labor force participation rate was just over 60% + 2.5% = 62.5%
- The unemployment rate was about

100% * 2.5 / 62.5 ≈ 4.1%

Hidden Unemployment



- "Hidden unemployment" people who are mislabeled in the categorization of employed, unemployed, or out of the labor force.
 - Part-time or temporary workers looking for full-time or permanent work.
 - Underemployed: individuals who are employed in a job that is below their skills.
 - Discouraged workers: those who have stopped looking for employment due to the lack of suitable positions available.

BLS does not use the concept of "hidden unemployment" but it does compute alternatives to the official unemployment rate: <u>https://www.bls.gov/news.release/empsit.t15.htm</u>

BLS Alternative Measures

6 Measures of Unemployment

For a clearer picture of the national labor market, the U.S. Bureau of Labor Statistics provides six measures of categories of unemployed people:



You do not need to know these alternative measures!

Source: https://www.bls.gov/news.release/empsit.t15.htm

International Unemployment Comparisons

The U.S. unemployment rate often been lower than comparable countries.

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- OECD comparisons: <u>https://data.oecd.org/unemp/unemployment-rate.htm</u>
- **Caution**: cross-country comparisons of unemployment rates face:
 - Different definitions of unemployment
 - Different survey tools for measuring unemployment
 - Poorer countries lack resources and technical capabilities in their statistical agencies.
 - Different labor markets
 - In low-income countries, workers are not involved in the labor market through an employer who pays them regularly, but in short-term work, subsistence activities, and barter.

Unemployment: US vs Euro Area

Figure 1.1. Unemployment rates, OECD, Euro area and selected countries

Percentage of labour force, seasonally adjusted





21.3 SR Changes in Unemployment: A Puzzle

 From the standpoint of the supply-and-demand model of competitive and flexible labor markets, unemployment represents something of a puzzle.

Equilibrium in the Labor Market



- With flexible wages, the equilibrium <Qeq,Weq> is determined by the intersection of the demand and supply curves.
- In equilibrium, the number of people who are willing and able to accept jobs (as shown by S) equals the number of jobs firms make available at each wage (as shown by D).

Equilibrium Model of Demand Decline



Quantity of Labor

In the equilibrium model of the labor market, a fall in demand causes the wage to fall but does not produce involuntary unemployment.

Cyclical Unemployment

• Cyclical unemployment:

 unemployment closely tied to the business cycle, like higher unemployment during a recession.

21.2 Dynamic Patterns of US Unemployment



Source: Federal Reserve Economic Data (FRED) https://research.stlouisfed.org/fred2/series/UNRATE

U.S. unemployment rate:

- moves up and down as the economy moves in and out of recessions.
- over time, the unemployment rate seems to return to a range of 4% to 6%.
- no apparent long-term trend (either generally higher or generally lower).



Image source: Statistica

 Unemployment rates are highest for the very young and become lower with age.

Unemployment Rates: Men vs Women



Source: FRED https://fred.stlouisfed.org/graph/fredgraph.png?g=VotI

- Unemployment rates for men used to be lower than unemployment rates for women.
- In recent decades, the two rates have been very close, often with the unemployment rate for men somewhat higher.

US Unemployment by Race and Ethnicity



Source: https://www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm

- Unemployment rates for all groups tend to rise and fall together.
- The Black and Hispanic unemployment rates have been higher than the White and Asian unemployment rates in recent years.

US Unemployment by Educational Attainment



Source: https://www.bls.gov/charts/employment-situation/unemployment-rates-for-persons-25-years-and-older-by-educational-attainment.htm

More education is strongly associated with lower unemployment.





- The wage rate is stuck at W, above the equilibrium,
 - the number of those who want jobs (Q_s) is greater than the number of job openings (Q_d).
 - The result is unemployment, as shown in the figure.

Why Wages Might Be Sticky Downward



• Implicit contract:

- an unwritten agreement in the labor market that
 - the employer will try to keep wages from falling when the economy is weak or the business is having trouble, and
 - the employee will not expect huge salary increases when the economy or the business is strong.

• Efficiency wage theory:

- the theory that the productivity of workers, either individually or as a group, will increase if the employer pays them more.
- Adverse selection of wage cuts argument:
 - if employers reduce wages for all workers, the best will leave.

Why Wages Might Be Sticky Downward, Continued



• Insider-outsider model:

 those already working for the firm are "insiders" who know the procedures; the other workers are "outsiders" who are recent or prospective hires.

• Relative wage coordination argument:

- across-the-board wage cuts are hard for an economy to implement, and
- workers fight against them in each particular circumstance.



Asymmetric Wage Adjustment

and unemployment

(a) In a labor market where wages can rise, an increase in the demand for labor from D₀ to D₁ leads to an increase in equilibrium quantity of labor hired from Q₀ to Q₁ and a rise in the equilibrium wage from W₀ to W₁.



(b) In a labor market where wages cannot decline, a fall in the demand for labor from D_0 to D_1 leads to a decline in the quantity of labor demanded at the original wage (W_0) from Q_0 to Q_2 . These workers will want to work at the prevailing wage (W_0) but will not be able to find jobs.

21.4 LR Changes in Unemployment Rates



- Natural rate of unemployment the unemployment rate that would exist in a growing and healthy economy from the combination of economic, social, and political factors that exist at a given time.
 - Frictional unemployment:
 - when workers spend time searching between jobs searching for a good match (because they are let go or they leave).
 - perhaps 1-2 percentage points of the total unemployment rate
 - Structural Unemployment:
 - when individuals lack skills valued by employers.
- Full employment: the actual unemployment rate equals the natural unemployment rate.
 - Real GDP then equals *potential* real GDP

Natural Rate of Unemployment

Despite the name, the "natural rate" of unemployment can be affected by policy.

For example, investments in employable skills through formal education, apprenticeships, or worker retraining may lower structural unemployment.

Productivity Shifts and the Natural Rate of Unemployment



(a) Productivity rises over time, increasing the demand for labor.

- Employers and workers become used to the pattern of wage increases.
- Then productivity suddenly stops increasing.
- The expectations of employers and workers for wage increases do not shift immediately, so wages keep rising as before.
- However, the demand for labor has not increased, so at wage W₄, unemployment exists where the quantity supplied of labor exceeds the quantity demanded.

Productivity Shifts and the Natural Rate of Unemployment



(a) Productivity rises, and then stops rising

(b) Productivity doesn't change, and then rises

- (b) The rate of productivity increase has been zero for a time
- employers and workers come to accept the equilibrium wage level (W).
- an unexpected productivity increase shifting labor demand from D₀ to D₁.
- At the wage (W), this means that the quantity demanded of labor exceeds the quantity supplied, and with job offers plentiful, the unemployment rate will be low.

Public Policy and the Natural Rate of Unemployment



- Supply side: assisting the unemployed can affect how eager people are to find work.
 - Example: unemployment insurance, welfare benefits, food stamps, and government medical benefits may make the opportunity cost of unemployment lower -> a worker may be less eager to seek a new job.
- What seems to matter most is how long the assistance lasts.
 - Short term benefits (weeks/months) vs. long term benefits (years)
- Government assistance for job search or retraining can sometimes encourage people back to work sooner.

Public Policy and the Natural Rate of Unemployment, Continued



- On the demand side of the labor market some public policies can affect the willingness of firms to hire:
 - Government rules (e.g., firing restriction; leave requirements; minimum wage)
 - Social institutions
 - Presence of unions (insider-outsider)

The Natural Rate of Unemployment in Recent Years



- Underlying economic, social, and political factors that determine the natural rate of unemployment can change over time, which means that the natural rate of unemployment can change over time too.
- Estimates by economists of the natural rate of unemployment in the U.S. economy is about 4.5 to 5.5%, which is a lower estimate than previously.
- Reasons for this lower rate:
 - Internet as a job seeking tool
 - Growth of the temporary worker industry
 - Aging of the "baby boom generation"

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