The Problem of Unemployment

- “Job loss means lower living standards in the present, anxiety about the future, and reduced self-esteem.”

- Unemployment in the is usually divided into two categories:
  1. The Natural Rate of Unemployment
     - Structural Unemployment
     - Frictional Unemployment
  2. The Cyclical Rate of Unemployment
Unemployment Rate

Natural Unemployment (Trend)

Cyclical Unemployment

Time
Identifying Unemployment

- **Natural Rate of Unemployment** represents persistent joblessness that does not go away on its own even in the long run. Refers to the amount of unemployment that the economy normally experiences.

- **Cyclical Unemployment** refers to the year-to-year fluctuations in unemployment around its natural rate. Deals with short-term fluctuations associated with the ups and downs of the business cycle.
Issues of Natural Unemployment

- How is unemployment measured
  - is it accurate
- What affects it by group?
- What affects “duration” of unemployment?
- Why does unemployment exist at all?
- Are there policies that can reduce it?
Measuring Unemployment

*The Monthly Unemployment Rate* is calculated by:

- The BLS surveying 60,000 randomly selected households and categorizing each adult (i.e. >16 years old) as:
  1. Currently employed (have a paying job- full or part-time).
  2. Unemployed but actively seeking a job.
  3. Not in the labor force (i.e. neither of above).
Measuring Unemployment

- A person is *employed* if he or she has spent most of the previous week working at a paid job.
- A person is *unemployed* if he or she is:
  - on temporary layoff
  - is looking for a job
  - is waiting for the start of a new job
- A person in *neither* category is *not in* the labor force.
The Labor Force is the number of employed persons plus the number of unemployed.

The Unemployment Rate is:

\[ u = \frac{U}{E+U} \]

- “u” is the unemployment rate
- “U” is the number of unemployed persons
- “E+U” is the labor force
Measuring Unemployment

- The *Labor-Force Participation Rate* illustrates the fraction of the population that has chosen to participate in the labor market.
- The *Labor-Force Participation Rate* is:

\[ PR = \frac{(E+U)}{Population} \]
Of the adult population, approximately 33% are not part of the labor force (do not “participate” in the labor market).

Although we usually hear only about the national unemployment rate, unemployment rates and participation rates vary significantly by gender, age and race.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adults:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.6</td>
<td>66.6</td>
</tr>
<tr>
<td>White, male</td>
<td>4.9</td>
<td>75.7</td>
</tr>
<tr>
<td>White, female</td>
<td>4.8</td>
<td>59.0</td>
</tr>
<tr>
<td>Black, male</td>
<td>10.6</td>
<td>69.0</td>
</tr>
<tr>
<td>Black, female</td>
<td>10.2</td>
<td>59.5</td>
</tr>
<tr>
<td><strong>Teenagers:</strong> (16-19 yrs. old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.3</td>
<td>53.5</td>
</tr>
<tr>
<td>White, male</td>
<td>15.6</td>
<td>58.5</td>
</tr>
<tr>
<td>White, female</td>
<td>13.4</td>
<td>55.5</td>
</tr>
<tr>
<td>Black, male</td>
<td>37.1</td>
<td>40.1</td>
</tr>
<tr>
<td>Black, female</td>
<td>34.3</td>
<td>39.8</td>
</tr>
</tbody>
</table>
Is Unemployment Measured Correctly?

- It is hard to distinguish between a person who is unemployed and a person who is not in the labor force.
- It is suggested that the "unemployment rate is inaccurately low" because it doesn’t reflect:
  - Underemployed
  - Discouraged workers
Is Unemployment Measured Correctly?

- The “underemployed” are those who are working part time when they really want full-time work.
- Discouraged Workers are those who have given up looking for work and report that they are no longer in the labor force, when in fact, they would be willing to work if offered a suitable, stable job (they should actually count as unemployed).
Is Unemployment Measured Correctly?

- Discouraged workers reduce measured unemployment because they are not included when actually they should be. In the calculation, $U$ should increase, increasing the numerator proportionately more than the denominator.

$$u = \frac{U}{E+U}$$

so should be bigger in the presence of discouraged workers.
This is the term used to refer to people who, when they lose their jobs, have difficulty finding a new one due to their lack of job skills.

- i.e. -workers with limited skills and education. In a modern economy, they may experience very long periods of unemployment.

- Examples: fishermen, assembly-line and textile workers.
Most of the economy’s unemployment problem is attributable to the relatively few workers who are jobless for long periods of time structurally unemployed.

The rate of unemployment is determined by the number of jobless and the average duration of joblessness they experience.

The average duration of unemployment is very short (< 10 weeks) for the majority of the unemployed (75%).
Why is there Unemployment?

- In an ideal labor market, wages would adjust to balance the supply of labor and the demand of labor, ensuring all workers full employment.

- Four reasons why the ideal is missed:
  - Minimum-wage laws
  - Unions
  - Efficiency wages
  - Job search “frictions”
Why is there Unemployment? Minimum-Wage Laws

- When a minimum-wage law forces the wage to remain above the level that balances supply and demand, it creates a *surplus of labor*.
- Suppose all labor was the same and a single wage cleared the market...
**Minimum-Wages**

- Price of Labor (wage)
- Supply
- Demand
- Equilibrium without Minimum Wage
- Quantity of Labor
Minimum-Wages

Price of Labor (wage) \( P^M \)

Quantity of Labor

Supply

Demand

Minimum Wage Law Established

Minimum Wa...
Minimum-Wages

Price of Labor (wage) $P^M$

Supply

Surplus or Unemployment

Demand

Quantity of Labor

$Q_D$, $Q_S$
Drawbacks to this Theory

- Labor is not all the same
- Research has shown that minimum wage laws may be too low
  - In New Jersey the minimum wage was increased while in neighboring states it was not.
  - No appreciable difference in the NJ unemployment rate occurred due to the policy. Higher minimum wages became a Presidential policy goal.
Why is there unemployment?
Unions and Collective Bargaining

- A **union** is a worker association that bargains with employers over wages and working conditions.
  - A union is a type of cartel.
- The process by which unions and firms agree on the terms of employment is called **collective bargaining**.
Why is there unemployment? Unions and Collective Bargaining

- A *strike* will be organized if the union and the firm cannot reach an agreement.
  - A strike makes some workers better off and other workers worse off: (1) Striking workers worse off in the short-run. (2) Rehired workers better off in the long-run.
- By acting as a cartel with ability to strike or otherwise impose high costs on employers, unions usually result in above equilibrium wages for their members.
Are unions good or bad for the economy today?

- At wages set above equilibrium:
  - a very large number of qualified workers are willing to accept the jobs
  - there are very few jobs and seldom any job openings for aspiring workers (job shortage)
  - workers tend to hold out accepting other jobs in hopes of one day landing the high paying union job
Why is there unemployment? The Theory of Efficiency Wage

- Firms operate more efficiently if wages are above the equilibrium level.
- Even in the presence of an excess of labor, firms may be more profitable by keeping wages higher than equilibrium.
- Unemployment caused by this theory is similar to that caused by the minimum-wage laws and unions.
Higher than equilibrium wages are set to promote the following goals of the firm:

- **Worker Health:** Better paid workers eat better and thus are more productive.
- **Worker Turnover:** A higher paid worker is less likely to look for another job.
- **Worker Effort:** Higher wages motivate workers to put forward their best effort.
- **Worker Quality:** Higher wages attract a better pool of workers to apply for jobs.
Unemployment that results from the fact that it takes time for qualified individuals to be matched with available jobs.

This unemployment is different from the previous three types. It is not caused by a wage rate higher than equilibrium. It is caused by the time spent in searching or waiting for the “right” job.
Situations of Job Search Unemployment

- Search unemployment is inevitable because the economy is always changing. Situations that cause this type of unemployment include:
  - New entrants into the job market
  - Re-entrants into the labor force
  - Relocations
  - Layoffs due to competition in the economy
  - Job quitters
Government programs try to facilitate job find in the following ways:
- Government-run employment agencies
- Public training programs
- Unemployment insurance

These programs can reduce the time or increase the time it takes unemployed workers to find new jobs.
**Public Policy and Job Search**

- **Government-run employment agencies:**
  - Better information about job vacancies and potential workers in order to match workers and jobs more quickly.

- **Public training programs:**
  - Aim to ease the transition of workers from declining to growing industries and to help disadvantaged groups escape poverty.
Public Policy and Job Search

- **Unemployment insurance:**
  - Partial payment of former wages for a limited time period only to those “who were laid off…”
  - Increases the amount of search unemployment without intending to.
  - Reduces “costs” of joblessness.
Summary:

- Since unemployment can impose unusual hardships on individuals and families, it is an important concern of policymakers.
- Measured using a national survey.
- \( \text{(u)nemployment rate} = \frac{U}{(E+U)} \times 100 \)
- Unemployment rates differ by race, age and gender
- Official u-rates may understate true problem due to underemployment and discouraged workers.
- Characteristics of work force may influence u-rates.
- Public policies may have conflicting and sometimes contradictory effects (UI or minimum wage laws).