
Macroeconomic Measurement II: Unemployment

Chapter 5 (p. 119-133)

Definition of Unemployment

- An unemployed person is
 - Not working, willing and able to work
 - Actively seeking a job and willing to accept a job at the prevailing market wage
- Not counted as unemployed
 - Unable or unwilling to work, underage, college students, homemakers, retired, in the military

Unemployment Puzzle

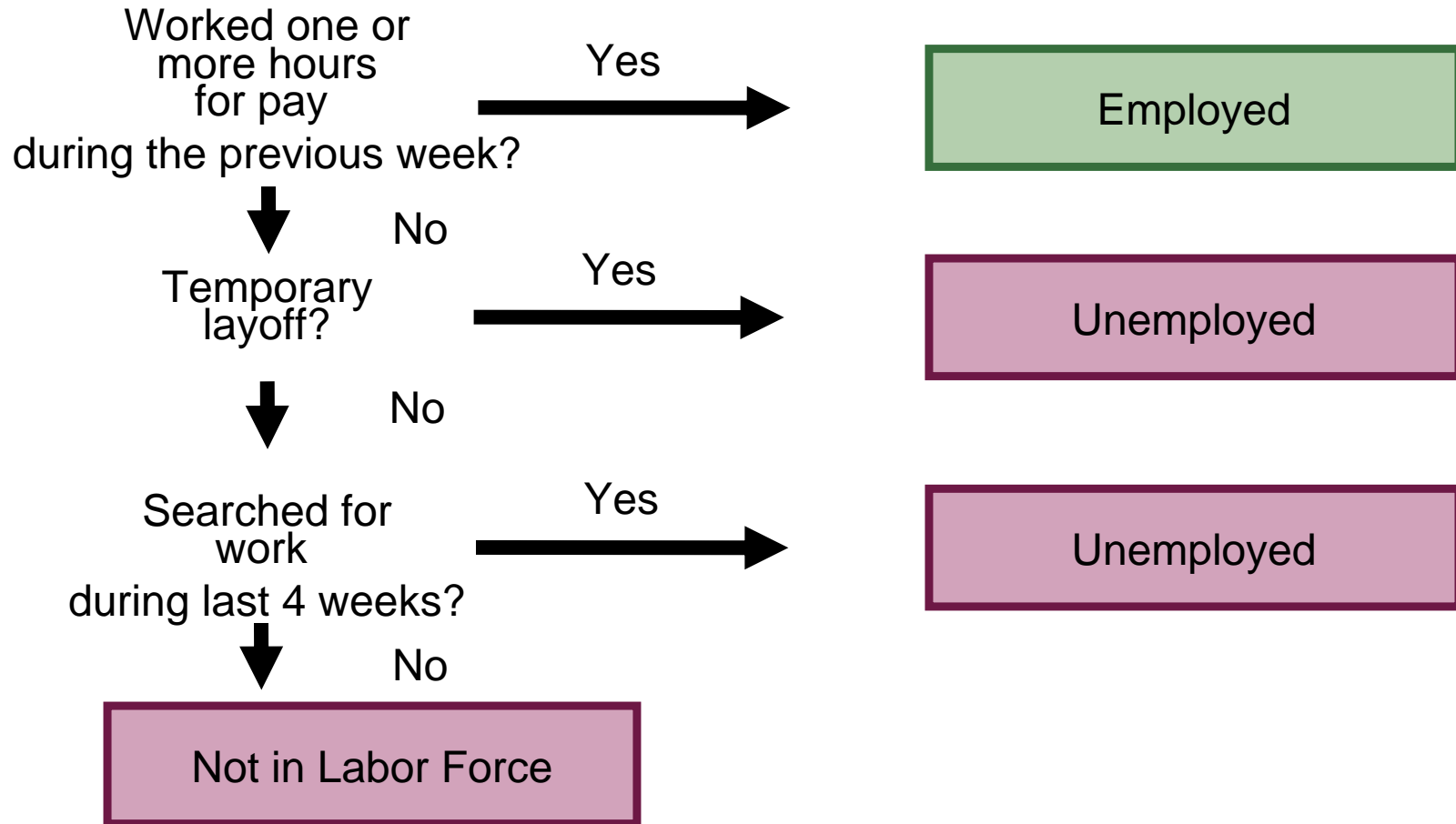
- Unemployment is inconsistent with the predictions of a simple competitive market
 - Wage such that demand = supply → should see no unemployment
- One of the goals of macroeconomics is to understand this phenomenon

Measurement of Unemployment

- The source of information about employment status of Americans is the US Census Bureau's Household Survey
 - Conducted every month
 - 60,000 Americans are interviewed
- Answers to 3 Census Bureau's questions determine whether a person is classified as unemployed or not

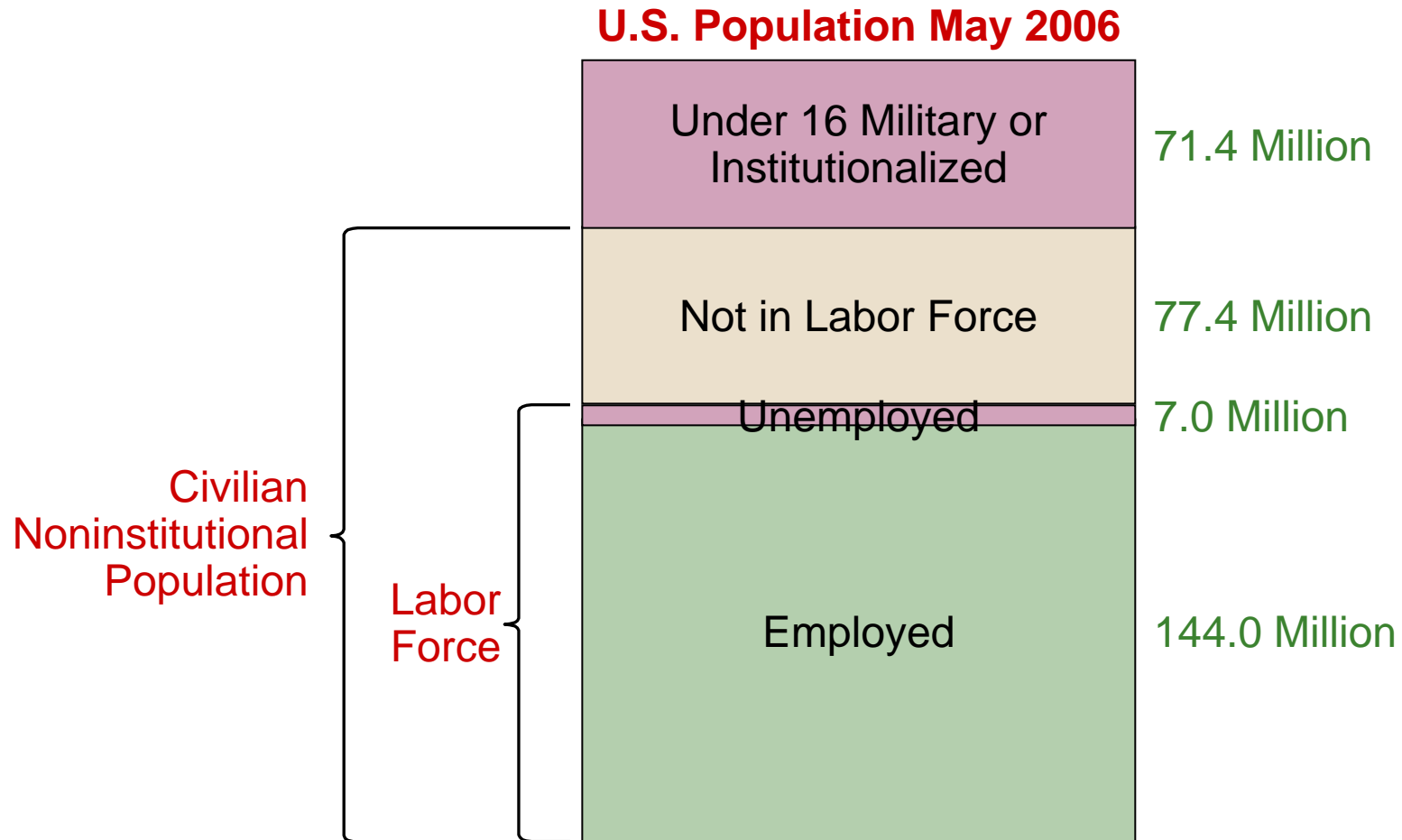
Census Bureau's Household Survey

Questions About Employment Status



Census Bureau's Household Survey

Sample Results



Why Survey Understates the Problem?

- Involuntary part-time workers
 - Would like a fulltime job, but can work only part time → considered employed by the survey
- Discouraged workers
 - Would like a job, but have given up searching for one → considered out of labor force by the survey

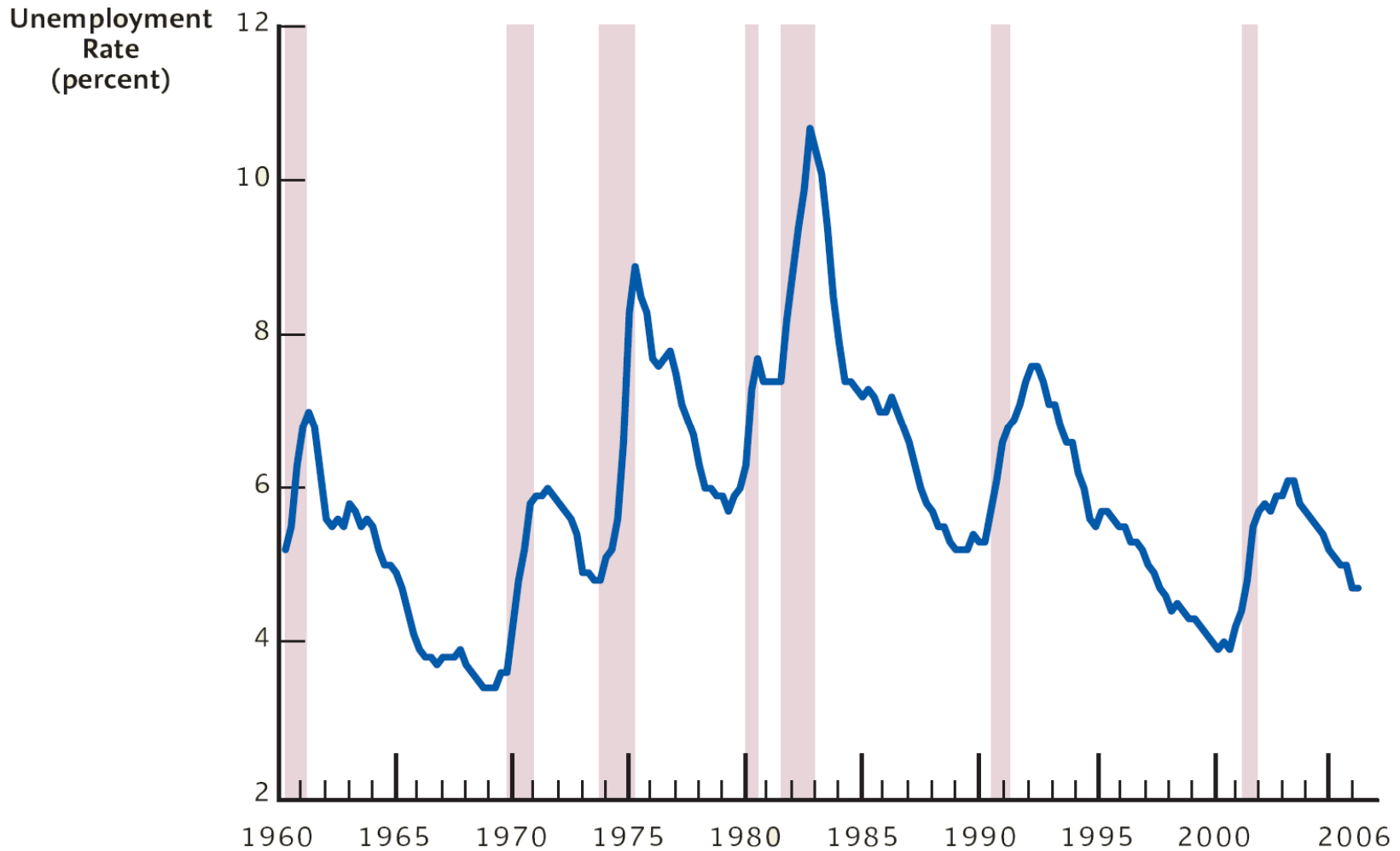
Definition of Unemployment Rate

- To measure the significance of unemployment problem, economists use unemployment rate
 - Unemployment rate: fraction of the labor force that is unemployed

$$\text{Unemployment Rate} = \frac{\text{Number of Unemployed}}{\text{Labor Force}} 100\%$$

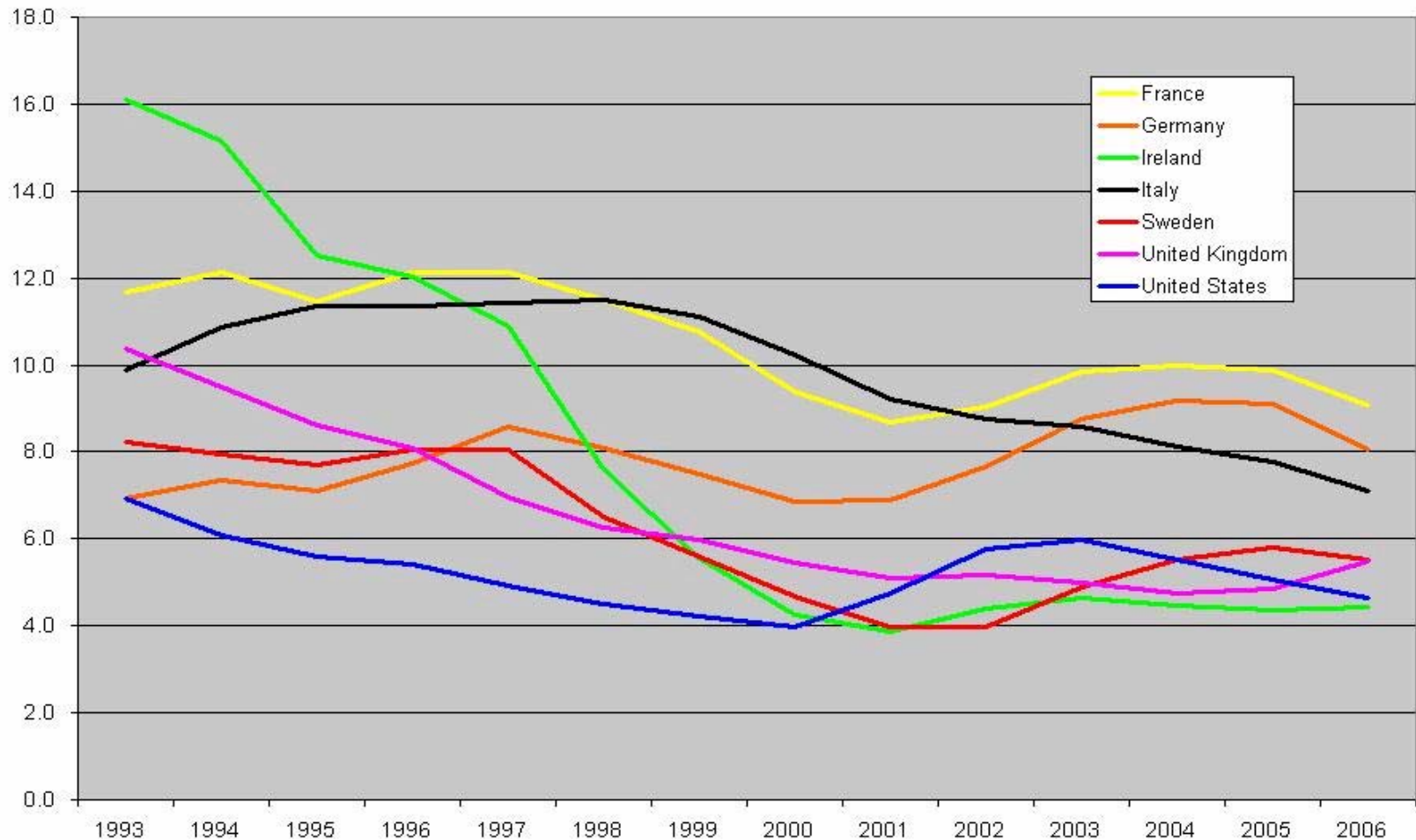
- Where: Labor force = employed + unemployed

Unemployment Rate in the US

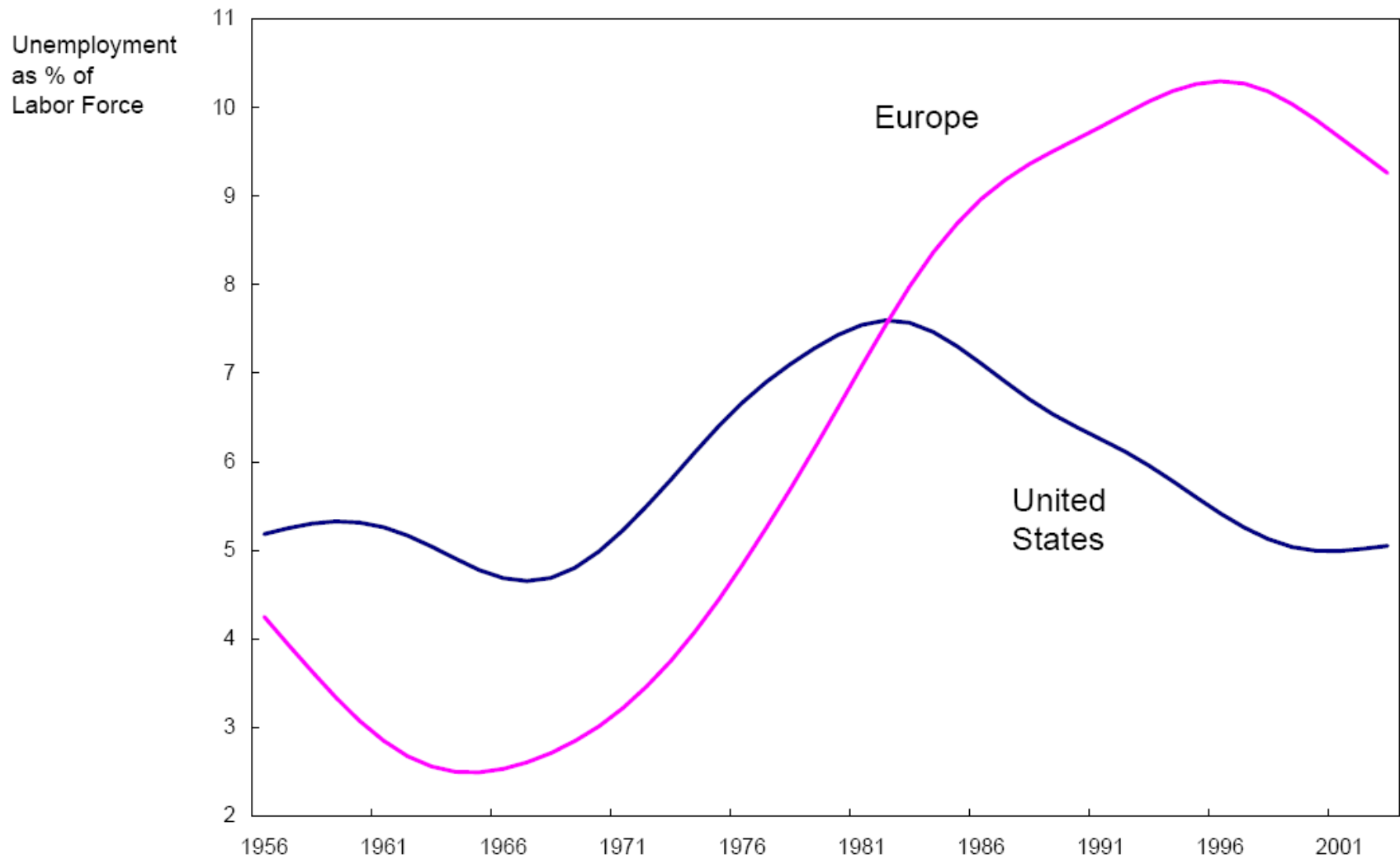


Comparison of Unemployment Rates

Unemployment Rate (Source: OECD)



Unemployment Rate in Europe and US



Types of Unemployment

Types of Unemployment

- Seasonal unemployment
 - Short-term problem
 - Related to changes in weather, tourist patterns, or other seasonal factors

Types of Unemployment

- Frictional unemployment
 - Short-term problem
 - Experienced by people who are between jobs, just entering the labor market, or reentering the labor market

Types of Unemployment

- Structural unemployment
 - Long-term problem
 - Arises from mismatches between
 - workers' skills and employers' requirements
 - workers' locations and employers' locations

Types of Unemployment

- Cyclical unemployment
 - Arises from changes in production over the business cycle (in recessions there are less jobs, unemployment rises)

Costs of Unemployment

Measurable

- Lost output
 - Goods and services the jobless would produce if working
- Caveats
 - Value of lost output (=lost earnings) might differ across social groups in utility terms
 - Should also take into account the value of leisure from unemployment

Not Measurable

- Psychological effects of unemployment
- Career path disruptions and loss of human capital
- Setbacks in achieving social goals of equality and fairness
 - Burden of unemployment not shared equally among different groups in the population

Exercise

- The country of Wonderland uses the same method to calculate unemployment rate as the US Bureau of Labor Statistics
 - From table below calculate unemployment rate, labor force and number of discouraged workers.

Exercise

Population	60,000
Under 16	9,000
Over 16	
<i>In military service</i>	<i>600</i>
<i>In hospitals</i>	<i>60</i>
<i>In prison</i>	<i>200</i>
<i>Worked 1h or more (last week)</i>	<i>46,000</i>
<i>Have no job, search for one (last 4 weeks)</i>	<i>2140</i>
<i>Do not search for job, but would accept one if offered</i>	<i>200</i>

Exercise

- Answer:

- Unemployment rate = $2140 / (46,000 + 2140)$
- Labor force = $46,000 + 2140$
- Potential number of discouraged workers who are not searching but interested in a job = 210