

Econ 102 Discussion – Week 6

February 27 – 28, 2014

Exam Topics

1. Comparative advantage and PPFs
2. Supply and demand problems
3. GDP
4. Unemployment

Unemployment

1. Suppose you collect the following data from the US Bureau of Labor Statistics:

	Total Population	% Female	% Male
Population Age 16+	15,000	45%	
Labor Force	10,000	40%	
Unemployed		55%	
Employed	9,000		

- (a) What is the total unemployment rate?
 - (b) What is the total labor force participation rate?
 - (c) What is the unemployment rate for women? What is the labor force participation rate for women?
 - (d) What is the unemployment rate for men? What is the labor force participation rate for me?
 - (e) Complete the table above.
2. Suppose there are 15,000 people living in Madison in 2008. 4,000 are either too old or too young to work. Of the remaining people, 4,000 are employed with full-time jobs; 3,000 are employed part-time, but they wish to work full time; and 2,000 are underemployed, but they are working full-time jobs; 1,000 are currently not working, but they are looking for work; and the remainder are discouraged workers.
 - (a) What is the size of the labor force in Madison in 2008?
 - (b) What is the employment rate in Madison in 2008?
 - (c) What is the unemployment rate in Madison in 2008?
 - (d) What percentage of the population of Madison are discouraged workers in 2008?
 - (e) Now suppose that Madison's real GDP is \$400,000 in 2008. Reports say that 100 people find jobs for every \$10,000 increase in the level of output. If the mayor of Madison wants to target an unemployment rate of 7% next year, what would the change in output need to be? Assume that the size of the labor force is unaffected by the change in GDP.

(f) Given the growth in GDP found in part (e), what is the GDP growth rate between 2008 and 2009?

3. Suppose that the labor market for an economy is characterized by the following equations:

$$W = 50 - Q^D$$

$$W = 10 + 3Q^S$$

(a) In market equilibrium, how many people are employed? What is the wage?

(b) Now suppose that the government implements a minimum wage such that structural unemployment is 4 workers. What minimum wage did the government implement? What is the unemployment rate?