Problem Set 4 – Collective bargaining and unemployment

Question 1. A union is considering starting a strike to force the firm to increase wages. Following the simple model of strikes and bargaining, show in a graph and discuss the likely effect on the duration of the strike and the final settlement of:

a) Increasing competition in the sector where the firm operates.

b) An increase of the unemployment rate in the local labor market.

c) More generous unemployment benefits.

d) The passing of a law that makes it illegal for employers to hire replacement workers during a strike.

Question 2. Imagine a country with approximately 150,000,000 workers. Assume that if unions did not exist, each of these workers would earn €25,000. Suppose a union is successful in organizing 20 percent of these workers and, after recent negotiations, obtains a 10 percent wage increase for its members. Using these facts and assuming that the elasticity of labor demand is −1.0, calculate:

a) the number of union and non-union workers in the country’s economy under the assumptions that: i) all workers who are not employed in the union sector are employed in the nonunion sector, and, alternatively, ii) union members who do not obtain union jobs remain unemployed.

b) the average wage in the union and non-union sectors under each assumption.

c) the change in GDP resulting from unionization under each assumption, assuming that GDP (Gross Domestic Product) consists entirely of employee compensation.

Question 3. (Ehrenberg and Smith, ch.13, Problem 4) The following table gives the demand for labor at two different firms. The current wage rate in both firms is $7 per hour. A union would like to organize employees in one of the firms and bargain to raise the wage rate to $8 per hour. Calculate the wage elasticity of demand for each firm if the wage rate were increased from $7 to $8 per hour. Which firm would the union be more interested in organizing? Why?

<table>
<thead>
<tr>
<th>Wage rate</th>
<th>Demand (Firm ABC)</th>
<th>Demand (Firm XYZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>$4</td>
<td>23</td>
<td>26</td>
</tr>
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<td>$5</td>
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<td>24</td>
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Question 4. (Ehrenberg, Chapter 14, Review Question 4) Is the following assertion true, false, or uncertain? “Increasing the level of unemployment insurance (UI) benefits will prolong the average length of spells of unemployment. Hence, a policy of raising UI benefit levels is not socially desirable”. Explain your answer.

Question 5. Suppose the unemployment rate in Baden-Württemberg has increased significantly over the past few months, and the state government has hired you as an expert to design policies that will help lower the unemployment rate.

a) What potential reasons are there for the high unemployment rate and how would you identify and distinguish them? (for example, what data could you look at in order to conclude that unemployment is mostly frictional, seasonal, structural, or cyclical?).

b) What policies would you recommend, and how would those depend on what the main source of unemployment turned out to be?