## Answer key to Chapter 2 questions

**MC questions:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c</td>
<td>9c</td>
</tr>
<tr>
<td>2c</td>
<td>10b</td>
</tr>
<tr>
<td>3b</td>
<td>11d</td>
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<td>4b</td>
<td>12c</td>
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<td>5d</td>
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<td>6d</td>
<td>14b</td>
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<td>7d</td>
<td>15a</td>
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<td>8a</td>
<td>16d</td>
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2. **Analyze the impact of the following changes on wages and employment in a given occupation:**

   (a) A decrease in the danger of the occupation.

   (b) An increase in product demand.

   (c) Increased wages in alternative occupations.

   **Answer:**

   (a) A fall in the danger of the occupation, other things being equal, should increase the attractiveness of that occupation, shifting the supply curve to the right and causing employment to rise and wages to fall.

   (b) An increase in product demand will shift the demand for labor curve to the right causing both wages and employment to increase.

   (c) Increased wages in other occupations will render them relatively more attractive than they were before and cause the supply curve to the occupation in question to shift to the left. This will cause employment in this market to fall and wages to rise.
6. Ecuador is the world’s leading exporter of bananas, which are grown and harvested by a large labor force that includes many children. Assume Ecuador now outlaws the use of child labor on banana plantations. Using economic theory in its “positive” mode, analyze what would happen to employment and wages in the banana farming industry in Ecuador. Use demand and supply curves in your analysis.

**Answer:** The labor supply curve to banana producers would clearly shift to the left as children were removed from the labor market. This would raise the wages paid by growers and reduce employment in the sector.

8. American students have organized opposition to the sale by their campus stores of university apparel made for American retailers by workers in foreign countries who work in sweatshop conditions (long hours at low pay in bad working conditions). Assume this movement takes the form of boycotting items made under sweatshop conditions.

(a) Analyze the immediate labor market outcomes for sweatshop workers in these countries using demand and supply curves to illustrate the mechanisms driving the outcomes.

(b) Assuming the actions by American students are the only force driving the improvement of wages and working conditions in foreign countries, what must these actions include to ensure that the workers they are seeking to help are unambiguously better off?

**Answer:** (a) A boycott has the effect of shifting the demand for apparel made by sweatshop labor to the left, driving down wages and employment. (b) To avoid the effects in (a), students in the U.S. must be willing to buy the same quantity and quality of apparel at higher prices—that is, they must be willing to pay a premium for apparel made by better-paid workers.
2. Suppose that the supply curve for school teachers is \( L_s = 20,000 + 350W \) and the demand curve for school teachers is \( L_d = 100,000 – 150W \), where \( L \) = the number of teachers and \( W \) = the daily wage.

(a) Plot the demand and supply curves.

(b) What are the equilibrium wage and employment level in this market?

(c) Now suppose that at any given wage 20,000 more workers are willing to work as school teachers. Plot the new supply curve and find the new wage and employment level. Why doesn’t employment grow by 20,000?

**Answer:** (a) See the figure. Plot the \( L_d \) and \( L_s \) curves by solving for desired employment at given wage rates. If \( W = 500 \), for example, employers desire 25,000 workers \( (L_d = 100,000 – 150 \times 500) \); if \( W = 400 \), they would desire 40,000. Since the equation above is for a straight line, drawing a line using these two points gives us the demand curve. Use the same procedure for the labor supply curve.
Quantitative Problems.

1. | Variable                        | Dallas            | Texas            | Texas excluding Dallas |
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<tr>
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<tbody>
<tr>
<td>Total Civilian Labor force</td>
<td>1,963,668</td>
<td>10,314,954</td>
<td>8,351,286</td>
</tr>
<tr>
<td>Total Civilian Employment</td>
<td>1,903,514</td>
<td>9,878,992</td>
<td>7,975,478</td>
</tr>
<tr>
<td>Total Civilian Unemployment</td>
<td>60,154</td>
<td>435,962</td>
<td>375,809</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>3.1</td>
<td>4.2</td>
<td>4.5</td>
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2. The labor force participation rate is 119/177 for whites (67.2%) and 19/26 (73.1%) for African-Americans. The unemployment rate is 6/119 for whites (5.0%) and 2/19 (10.5%) for African-Americans.

3. (a) Before the government changes the level of retirement benefits, the LFP is 90,000/100,000, or 90%, while the unemployment rate is 5,000/90,000, or 5.6%. After the policy, the new LFP is 88,000/100,000, or 88%, while the unemployment rate has increased to 5,000/88,000, or 5.7%.
   (b) Although the unemployment rate has increased, unemployment remains unchanged at 5,000.

4. (a) Setting $L^* = L^d$, solving for $w^*$, and plugging into either $L^d$ or $L^s$ yields:

   \[-40 + 10w^* = 160 - 10w^* \]
   \[200 = 20w^* \]
   \[w^* = 10 \text{$/hr$} \]
   \[L^* = 60 \]

Since there is no unemployment, the labor force is equal to the number of employed, which is 60.
   (b) Given $L^d$:

   \[-20 + 10w^* = 160 - 10w^* \]
   \[180 = 20w^* \]
   \[w^* = 9 \text{$/hr$} \]