Midterm Exam

Instructions: This exam is worth a total of 120 points. There are 7 questions, and point values are indicated to the right of the question number. Books, notes, and calculators are not allowed, but you may leave arithmetic answers in fractions.

NOTE: Some material covered Fall 2003 was not covered Winter 2005 and visa versa. Questions not relevant in Winter 2005 have been omitted.

1. a. Explain Gary Becker’s theory about labor market discrimination in the long run. (You don’t need to show any graphs, just explain verbally.)
   b. What does Becker’s analysis imply about the role of government policy regarding labor market discrimination?

2. (16 points) Consider the planet Coal Pit which is inhabited by members of 2 groups: Black-Whites (B) and White-Blacks (W). Black-whites are black on the right side and white on the left side of their bodies and white-blacks are white on the right side and black on the left side. There are only two occupations: coal-mining and store-keeping. The employment of B’s and W’s by occupation is:

<table>
<thead>
<tr>
<th></th>
<th>Black-whites (B)</th>
<th>White-Blacks (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal-Mining (C)</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Store-Keeping (S)</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

   a. Calculate D, the Duncan and Duncan Index of Occupational Dissimilarity (i.e., the Index of Segregation), for B’s and W’s.
   b. Interpret the value of the index.
   c. What is the value of the index if there is complete integration?
   d. What is the value of the index if there were complete segregation?
3. (20 points) Coal Pit is also characterized by the following statistics.

<table>
<thead>
<tr>
<th></th>
<th>W's</th>
<th>B's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population aged 16 and over</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Number Unemployed</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Median Earnings</td>
<td>55</td>
<td>20</td>
</tr>
</tbody>
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a. Define labor force, labor force participation rate and unemployment rate.

b. In conjunction with the data in problem 1, determine the values of the following statistics for this economy:

   i. earnings ratio (ER) of B’s to W’s
   ii. earnings gap
   iii. unemployment rate for the W’s
   iv. labor force participation rate of the W’s

4. (14 points) a. List the most recent actual values given in class for the following labor market characteristics in the U.S.

   i. the median earnings ratio of African American to whites
   ii. the median earnings ratio of women to men
   iii. the unemployment rate of African Americans
   iv. the unemployment rate of whites

b. Suppose that you read in the paper that women earn 95 percent of what men earn in the United States. Is it possible that your figure in part (a.i.) and 95% are both correct? If so, how?

5. (16 points) For each pair of values, circle the one that is greater.

   Labor force participation of white women   Labor force participation of African American women
   Occupational segregation index by race     Occupational segregation index by sex
   Unemployment rate of men                   Unemployment rate of women
   Unemployment rate of black teens today     Unemployment rate overall in the Great Depression
   Female/male earnings ratio today           Female/male earnings ratio in 1980
   Occupational segregation index by race today   Occupational segregation index by race in 1940
   Labor force participation of men today     Labor force participation of men in 1890
   Racial wage gap today                       Racial wage gap in the last century

6. a. List 3 factors which will affect an individual’s labor force participation decision and define any abbreviations or specific terms that you use.