Lecture 22 -- Determinants of Earnings

I. Introduction

<table>
<thead>
<tr>
<th>Median Weekly Earnings of Full-Time Workers, Age 16 and above</th>
<th>2002</th>
<th>2003</th>
<th>2004 1st Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>623</td>
<td>636</td>
<td>652</td>
</tr>
<tr>
<td>Women</td>
<td>547</td>
<td>567</td>
<td>580</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>498</td>
<td>514</td>
<td>521</td>
</tr>
<tr>
<td>Women</td>
<td>473</td>
<td>491</td>
<td>498</td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>658</td>
<td>693</td>
<td>712</td>
</tr>
<tr>
<td>Women</td>
<td>524</td>
<td>555</td>
<td>567</td>
</tr>
<tr>
<td>Latino</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>424</td>
<td>440</td>
<td>450</td>
</tr>
<tr>
<td>Women</td>
<td>451</td>
<td>464</td>
<td>478</td>
</tr>
<tr>
<td></td>
<td>397</td>
<td>410</td>
<td>417</td>
</tr>
</tbody>
</table>


Reasons why different workers earn different amounts:

1) Things that affect productivity

Differences in Skills (Human Capital)
   -- Education
   -- Experience
   -- Ability

Effort

2) Things related to non-wage attributes of a job

Compensating Differentials

3) Things that result in non-equilibrium wages

Unions
Minimum Wages
Efficiency Wages

4) Non-market behavior

5) Discrimination
II. Human Capital

A. Education

<table>
<thead>
<tr>
<th>Median Weekly Earnings of Full-Time Workers age 25 and above, 2004 1st Quarter</th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>676</td>
<td>757</td>
<td>592</td>
</tr>
<tr>
<td>Less than High School</td>
<td>396</td>
<td>434</td>
<td>339</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>562</td>
<td>640</td>
<td>479</td>
</tr>
<tr>
<td>Some College</td>
<td>649</td>
<td>747</td>
<td>571</td>
</tr>
<tr>
<td>Bachelor’s Degree and Above</td>
<td>996</td>
<td>1,148</td>
<td>855</td>
</tr>
</tbody>
</table>

Two views of effects of education

1) **Education adds skills** that increase productivity of workers.

Workers invest in education if the wage that they receive after finishing education is high enough to offset the direct cost (tuition, etc.) and opportunity cost (lower income during time spent in school).

2) **Education adds nothing to skills**, but is a way for high-skilled people to signal that they are high-skilled

Employers may not have good information about the abilities of workers

If the skills that raise productivity in the workplace are the same skills that are necessary to succeed in school, then employers would rather have workers signal who is high ability by going to school.

A worker that does well in school receives a high wage because s/he has signaled that s/he is high ability. A worker that does not do well in school would choose not to go to school and receives a low wage because s/he is low ability.

B. Experience

Workers acquire labor market specific skills by through working experience.
III. Compensating Differentials

Consider two jobs that require the same skills and are equally straining-- The same worker would be equally productive in either job.

Job 1 -- Above-ground in a clean, safe environment

Job 2 -- Below-ground in a dirty, dangerous environment

Amenities – Characteristics of a job that the worker likes
Disamenities – Characteristics of a job that the worker does not like

Job 2 has disamenities

A worker would never accept job 2 if job 1 was available. In order to accept job 2, the employer of job 2 would have to pay a higher wage than job 1. The amount that the worker would be willing to accept to work in a job with disamenities is called a compensating differential.

Compensating Differential = A difference in wages that arises to offset the non-monetary characteristics of different jobs.

IV. Non-market reasons why wages differ across people

A. Unions

Union == Worker association that bargains with employers over wages and working conditions

Because one union represents all workers in a firm, the firm must negotiate an agreement on wages and employment with the union and cannot hire workers at the competitive wage (unless that is the agreement with the union). The firm still has a demand for labor curve, but instead of hiring at the competitive wage, the union and the firm agree on another combination of wages and employment.

In a competitive industry for the output of the firm (i.e. no excess profits), this will be a combination of wages and employment on the firm’s demand curve.

If the firm and the union do not agree on a contract, the workers may strike or the firm may lock-out workers.
B. Minimum Wage Laws

C. Efficiency Wages

Basic idea of efficiency wages in general is that paying a higher wage induces a higher productivity. This goes against the idea that the productivity of the workers is determined by technology and the output price, over neither of which the firm has direct control.

1. Worker Health

An easy example to see is a firm that pays a wage so low that the worker cannot obtain enough calories to work hard all day. Even if that were the competitive wage, the firm could increase the productivity of the worker by paying a higher wage that allowed the purchase and consumption of more calories. This makes sense if the increases in productivity resulting from healthier workers are greater than the increases in wages.

2. Worker Turnover

If it is costly for the firm to hire and train workers, the firm might save money by paying a little more than the market wage so that the job at the firm is “good” job that workers do not want to leave. This makes sense if the savings in turnover costs are greater than the increase in wages paid to the workers.
3. **Worker Effort**

The efficiency wage idea has been used to explain unemployment in the following way. If everyone receives the same wage and all unemployment is frictional, then there is no disincentive to losing one's job since there are other jobs out there that pay the same wage and are easily obtained. If there is no disincentive to losing one's job, there is no incentive to work hard. An employer could provide a disincentive to losing one's job (and to work hard) by paying a wage above the competitive wage. If the worker does not work hard and gets fired, s/he would no longer get the high wage and would be forced to accept the competitive wage. If all employers did this the disincentive would be the possibility of becoming unemployed. In this view, unemployment is a "worker discipline device." This makes sense if the higher wages lead workers to increase effort enough to increase productivity and pay for the higher wages.

4. **Worker Quality**

If a firm offers a wage higher than the market wage, it will attract a better pool of applicants for jobs and can pick better workers. This makes sense as long as the improvement in quality leads to productivity increases that pay for the higher wages.

V. **Discrimination**

Discrimination = The offering of different opportunities to similar individuals who differ only by race, ethnic group, sex, age, or other personal characteristics

Are differences in earnings between males and females, or between racial groups the result of discrimination?

Some is and some isn’t.

As we are seeing, there are many things that determine an individual’s wages. If the determinants of earnings (productivity) are different on average for different groups, then the average wages of the two groups will be different even if there is no discrimination.

Only after we have accounted for all the other possible explanations for differences in earnings between two groups could we consider that there might be discrimination in earnings.

Types of discrimination

Discrimination by employers
Discrimination by customers
Discrimination by government policy