Labor Supply

The Work Leisure Choice

\[ X = 10H \]

\[ X^* + H^* = 168 \]
The Backward Bending Labor Supply Curve

• As wages initially rise, people work harder.

• At some point, people are making enough money and decide to work less.

Average Hours Worked Per Person in the United States, 1870-1989

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Worked</th>
<th>Per Capita GDP (1989$)</th>
<th>Implied &quot;Wage Rate&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>2,964</td>
<td>2,254</td>
<td>$0.76</td>
</tr>
<tr>
<td>1890</td>
<td>2,789</td>
<td>3,115</td>
<td>$1.12</td>
</tr>
<tr>
<td>1913</td>
<td>2,603</td>
<td>4,666</td>
<td>$1.87</td>
</tr>
<tr>
<td>1929</td>
<td>2,342</td>
<td>5,668</td>
<td>$2.71</td>
</tr>
<tr>
<td>1938</td>
<td>2,062</td>
<td>5,568</td>
<td>$2.79</td>
</tr>
<tr>
<td>1950</td>
<td>1,867</td>
<td>8,611</td>
<td>$4.61</td>
</tr>
<tr>
<td>1960</td>
<td>1,795</td>
<td>9,995</td>
<td>$5.57</td>
</tr>
<tr>
<td>1973</td>
<td>1,717</td>
<td>14,193</td>
<td>$8.21</td>
</tr>
<tr>
<td>1987</td>
<td>1,608</td>
<td>17,340</td>
<td>$10.78</td>
</tr>
<tr>
<td>1989</td>
<td>1,604</td>
<td>18,317</td>
<td>$11.42</td>
</tr>
</tbody>
</table>
An Interpretation

• This is the *long run labor supply curve*.

• Normally, if an hour of leisure costs you more, you will purchase less of it.

• However, as your wage rate rises, your income rises and you want more leisure.

An Interpretation

• Suppose your employer offered you an additional $10 an hour for every hour you worked this week and only this week.

• You might decide to work 10 extra hours.

• There is a substitution effect.

• The effect on your lifetime income is negligible.
An Interpretation

- Now suppose you got a permanent pay raise of $10 an hour.
  - Most people would choose to work less over their lifetime.
  - They might not reduce the amount they work right now, but might retire earlier.
Some Examples

• College students work fewer hours than they would if this were their “permanent wage”.

• People who temporarily fall on hard times don’t work many hours at the low wages they can earn on a temporary job.

• We all work hard when a lucrative opportunity comes along.

Some Caveats

• The notion of a single week as a basis for labor supply is limiting.

  – Workers have traditionally varied their hours of work over the course of the year. To adjust for the Christmas effect or the Finals week effect, we interpret this as an “average” week.

• People “bunch” their labor supply at times when wage rates are higher when business is booming.
Some Caveats

- The notion of a single week as a basis for labor supply is limiting.
- People “bunch” their labor supply at times when business is booming.
  Teachers work harder during September - May.

We all tend to work harder during the middle of our life span, for that is when the combination of abilities and physical stamina is at its peak.

End