Problem Set #1
Due October 22, 2009, at the start of class

1. Oscar the Grouch is about to turn 55, at which point he becomes eligible for retirement. He currently
   earns $25 per hour and chooses to work 8 hours per day (he can choose to work up to 12 hours per day).
   a. If the retirement package offers him $150 per day if he resigns from Sesame Street,
      should he retire?
   b. Alternatively, he could retire from Sesame Street, collect his pension, and become a
      greeter at Wal-Mart at an hourly wage of $10. Is this option attractive to Oscar? If so, will
      he work more or less than 8 hours per day? Why? If not, why not?
   c. Just before Oscar has decided what to do regarding retirement, Barney offers him a
      minor role on his show. Barney tells Oscar that he can choose to work for any amount of
      time between 0 and 4 hours per day at an hourly wage rate of $40. Should Oscar retire from
      Sesame Street and take Barney up on his offer? If so, how many hours should he choose to
      work and why? If not, why not?

2. The government of Oz institutes the following Earned Income Tax Credit (EITC) program. For every
dollar you earn, up to a maximum of $10,000, the government will increase your wage by 50%, for a
maximum subsidy of $5,000. For every dollar you earn above $10,000 the government reduces the
subsidy for $0.50 until the subsidy hits $0. Consider a person who earns $10 per hour. Assume that
people can choose between labor and leisure over 16 hours per day (sleep must take 8 hours).
   a. At how many hours of work does the subsidy hit zero?
   b. What impact does the EITC program have on the labor supply decision of a person who
      earns $10 and chooses to work 8 hours per day 5 days per week before EITC was
      introduced?
   c. For a person earning $10 per hour who chooses to work 1000 hours per year under
      EITC, what impact does the institution of welfare (“old” welfare, no work requirement) at
      $1250 per month have on the hours of work per year that she chooses to supply?

3. Among single, college-educated women aged 22-25, average annual hours worked is 2,160 and the
   average wage is $22.50/hour. If the average wage increases to $25 per hour, average annual hours
   worked increases to 2,340.
   a. What is the elasticity of labor supply for this group of workers as a whole?
   b. Most studies find that married women have a labor supply elasticity greater than 1.
      Explain the difference between your answer in part (a) and the result for married women.

4. Consider monopsony.
   a. Draw the labor demand curve for a monopsonist (hint: this is somewhat a trick question).
   b. In a “labor supply/labor demand” graph, compare the wage/employment outcome of
monopsony to perfect competition. Are workers better off or worse off under monopsony?

C. In the monopsony case, introduce a binding minimum wage. What happens to employment?

5. Consider the labor market for public school teachers. Teachers have preferences over their job characteristics and amenities.

a. One could reasonably expect that high-crime school districts pay higher wages than low-crime school districts. But the data consistently reveal that high-crime school districts pay lower wages than low-crime school districts. Why?

b. Does your discussion suggest anything about the relation between teacher salaries and school quality?