Chapter 8: Compensating Differences.

In addition to the questions that follow, solve review questions 5 and 7; and problems 1 and 2 at the end of chapter 8.

Suppose that the isoprofit curves for two types of firms (X and Y) are given by XX' and YY' in the above diagram. Also, suppose that this firm has zero profits at every point on the isoprofit curves. Suppose that there are two types of workers (A and B) with indifference curves labeled by A's and B's.

1. Comparing A and B workers, which workers are more willing to put up with risk? How can you tell?

2. If risk is currently at R, is it cheaper to reduce risk at X or Y firms? How can you tell?

3. Suppose that there are 4 types of firms.
   X1 firms are type X firms that offer R'.
   X2 firms are type X firms that offer (Wax, Rax)
   Y1 firms are type Y firms that offer R'.
   Y2 firms are type Y firms that offer (Wbx, Rbx)

a. If these firms are able to attract workers with their compensation package, what are the profits of each firm type?
b. Which type of worker will prefer X1 firms? X2 firms? Y1 firms? Y2 firms?
c. Based on your answer to B, will all firm types be able to survive?
d. Of the surviving firm types, what is the nature of the "matching" between workers and firms?
2. The Environmental Protection Agency uses estimates of compensating wage differences associated with pollution to estimate the benefits of reducing pollution.
   a. If workers are covered by health insurance, some of the “damage” of air pollution would be paid for by the health insurance. Consequently, explain how coverage by health insurance would affect the quality of compensating differences as a measure of pollution costs.
   b. Explain how compensating differences for pollution could be used to obtain an estimate of the "value of life".
   c. Suppose that the value of life is estimated by relying on the compensating difference for the risk of being fatally injured on the job.
      i. Explain how “ex post” awards for a work-related death affects the quality of the estimated value of life.
      ii. Suppose that one researcher compares wages on jobs with .001 and .002 risk of death to get an estimate of the value of life. A second researcher compares jobs with .001 and .010 risk of death to get the estimate. Who is likely to get the larger “value of life” estimate? Why?

3. President George Bush Sr. vetoed the Family Leave Act in 1992. Among its provisions was a requirement that firms allow for a 15 week unpaid leave at the birth of a child. To examine the consequences of this legislation, three points need to be considered: First, some firms say this is a costly mandate since longer leaves will require them to hire expensive and/or less productive temporaries, or leave work undone. Estimates of the cost to business range as high as $15 billion. Second, workers benefit from the leave since it reduces the risk of being forced to search for another employer after childbirth. Finally, workers differ in the value they place on the guarantee, and firms differ in the cost of the guarantee.

   a. Given the above considerations, how should the wages of "equally productive" workers compare at firms with and without a leave guarantee? Why?
   b. Given that workers and firms differ in terms of the costs and benefits of leaves and assuming that workers are freely mobile, which workers will be at the firms with leaves? Which firms will offer leaves?
   c. President Bill Clinton signed the Family Leave Act. For the workers and firms that already have guaranteed leaves, this should have little effect. How will it affect the workers at firms that did not previously offer leaves? How about the firms? Explain.
   d. Suppose that workers who lose their jobs as the result of childbirth are eligible for unemployment insurance. How would this affect the desirability of the parental leave mandate? (Hint: consider insurance externalities.) Contrast the case where unemployment insurance premiums are equal across all firms to that where premiums are based upon the unemployment history of each firm's prior employees.
   e. Suppose that a firm offers a pension that defers pay. Do you expect that such a firm is more or less likely to offer a guaranteed leave? Explain. (Hint: consider how a pension will affect the value workers place on a leave guarantee.)
4a. Explain how introduction of nondiscrimination rules for fringe benefit provision can induce the following: (i) an increase in the number of part time or "leased" employees; (ii) an increase in fringe benefits for low income, but a decrease in fringe benefits for high income workers; (iii) an increase in labor costs for employers. Where possible, use the graphic analysis developed in class to support your answers.

b. Assuming that nondiscrimination rules are in effect, who should have more fringe benefits: a low skill worker who works at a firm that consists primarily of low skill workers; or a low skill worker who works at a firm that consists primarily of high skill workers? Explain using the graphic analysis developed in class.

5. Suppose that people that work in chicken processing plants have a high risk of getting carpal tunnel syndrome. OSHA enters the picture and mandates changes in the process that will reduce the risk.

a. Did chicken processors have any incentive to eliminate the risk without OSHA intervention? Explain.

b. After OSHA intervenes, are workers better or worse off? Explain. What about the chicken processing firms and chicken consumers?

c. If the chicken processing plant purchases health insurance to cover the treatment of carpal tunnel syndrome, explain why the OSHA intervention might be better justified.