Applications

The Effects of Mandating Higher Wages

32. It has been well documented that a wage differential exists between union and non-union workers with the same personal skills (see Chapter 13). In the June 1980 issue of the *American Economic Review*, economists Greg Duncan and James Stafford argued that a significant portion of the differential reflected not the bargaining power of unions, but rather a compensating wage differential. Duncan and Stafford reasoned that the differential arose because workers in unionized industries typically had to work under more structured conditions (e.g., had fewer opportunities to take unscheduled breaks) and at a faster pace than their non-union counterparts. The primary reason for this is that a large proportion of unionized employees work on an assembly line. For the sake of argument, suppose Duncan and Stafford are correct. Shown below in Figure 8-9 are zero-profit isoprofit curves for two firms hiring comparable workers. The isoprofit curve for the union firm is labeled $U$, the isoprofit curve for the non-union firm is labeled $NU$. Also shown in Figure 8-9 are indifference curves for two sets of workers (call these workers $A$ and $B$). These indifference curves were drawn in such a way that a compensating differential arises between union and non-union work.

![Figure 8-9](image)

32a. Assuming workers are tied to their current employers, analyze the effects of a law requiring non-union firms to pay the union wage rate.

32b. What would be the effect of such a law if workers were perfectly mobile?

32c. Assuming again workers are perfectly mobile, will the law prevent a compensating differential from arising?

32d. Some economists argue that the minimum wage law does not significantly reduce the quantity of labor demanded since firms just adjust working conditions to neutralize the impact on costs of the higher mandated wages. Do you see any similarity between this argument and the effects seen in this problem? When such a legal minimum wage is imposed, what are the effects on the least skilled workers in the labor market?
Health and Safety Regulation When Relative Income Matters

*33. In his book *Microeconomics and Behavior* (New York: McGraw-Hill, 1994, p. 599), economist Robert H. Frank explores the impact that health and safety regulation has in a world where workers care strongly about their levels of income relative to one another. To illustrate the point, Frank proposes a utility function of the form

\[ U = Y + S + R(Y), \]

where \( Y \) is income, \( S \) is a measure of the utility connected with working under safe conditions, and \( R(Y) \) is a measure of the utility gained through rank in the income distribution. Suppose that \( Y \) equals $200 if the person works under safe conditions, but rises to $300 if the person works under unsafe conditions. Suppose \( S \) takes on the value of 200 if conditions are safe, and zero if conditions are unsafe. If person A and person B have the same income, \( R(Y) \) equals zero for both. However, if person A’s income exceeds B’s, \( R(Y) \) will equal 200 for A but −250 for B. Similarly, if person B’s income exceeds A’s, \( R(Y) \) will equal 200 for person B but −250 for person A.

*33a. Make a table with two rows and two columns that shows the levels of utility available to persons A and B. The rows should show the options (work under safe or unsafe conditions) for person A, while the columns should show the options (work under safe or unsafe conditions) for person B. Within each cell of the table compute the utility that would be derived by each person.

*33b. Assuming each worker is trying to maximize utility, what condition will person A choose? What condition will person B choose?

*33c. Would the workers be better or worse off if the government were to regulate working conditions so that both jobs could be considered safe?

*33d. Discuss the reasonableness of the assumption that a significant determinant of a person’s utility is his or her relative income.

The Benefits and Cost of Occupational Safety and Health Regulation

34. On March 20, 1992 (p. A3), *The Wall Street Journal* reported on an attempt by the Bush administration to change the way benefit/cost analyses of regulations are performed. Specifically, when computing the cost of a regulation, the administration wanted agencies to take into account the reduction in income that the regulation brings about. The theory behind this suggested change, according to W. Kip Viscusi, an economist not affiliated with the plan, was that “Regulations cost people money . . . and the poorer people become, the more likely they are to get ill or die early.” One study cited by the Labor Department estimated “that each $7.5 million of regulatory expenses could result in one additional death from lowered incomes.” In a letter to President Bush 12 Democratic senators called the plan “cruelly insensitive” and said that the plan was based on “a dangerous notion: that America’s working men and women have to make a choice between their jobs and their health.”

34a. Was the premise of the proposed change sound? Was it insensitive?

34b. While the proposed change would affect calculations of the cost of regulations, the benefit calculations would basically be unchanged. Are there any factors that are typically left out of benefit calculations that perhaps should not be?
Issues Related to the Provision of Employee Benefits

35. According to data presented in Chapter 5, deferred benefits such as pensions make up about 4% of total compensation. Such plans, however, can be very costly to administer, particularly if they are defined benefit pension plans. As discussed in Chapter 5, a pension can be either a defined plan benefit or a defined contribution plan. Under a defined benefit plan employers guarantee the employee a certain monthly payment upon retirement, and then it is up to the firm to make sure the money is put aside to make such payments in future years. However, under a defined contribution plan, employers simply put aside a certain amount of money each pay period for the employee who then invests this money subject to certain rules. Defined contribution plans are typically much easier to administer. Defined benefit plans, on the other hand, typically involve complying with a wide array of government regulations, and so the paperwork associated with such a plan can be very costly.

35a. How would an increase in the paperwork cost of providing a pension plan be modeled using the hedonic wage theory of employee benefits?

35b. Assuming workers have perfect information and are mobile, how would an increase in the cost of administering employee benefits affect the optimal mix of wages and employee benefits in the model?

36. One of the key issues in the debate over health care reform is the tax treatment of employee health benefits. Traditionally, such benefits have not been counted as part of an employee’s taxable income. Also, since these benefits are a business expense, they tend to reduce the firm’s corporate tax liability. Opponents of the status quo argue that if employees had to pay taxes on the benefits, and if firms could not automatically deduct the cost of benefits from their income, both employees and employers might shop more carefully for health coverage. If employers and employees pay greater attention to the cost of different plans, providers of both health insurance and health services would face greater incentives to keep costs down.

36a. How would the hedonic wage model of employee benefits change if employees had to pay taxes on health care benefits?

36b. How would the hedonic wage model of employee benefits change if employers could count only part of their health care expenses as a business expense?

36c. How would the changes in 36a and 36b affect the optimal combination of wage and employee benefits?

37. Throughout the 1990s, it was reported that various forms of family assistance grew even as companies struggled to contain overall benefit costs. Benefits such as paternity leave or work-at-home policies, virtually unheard of in the 1980s, became quite common in the late 1990s.

37a. Discuss why firms would make such changes in their compensation packages.

37b. Although the provision of family benefits has been growing, such benefits do not extend to all working families. Discuss whether such benefits should be mandated for all employees.
The Effect of Unemployment Insurance on Compensating Differentials for Layoffs

38. Consider the scenario discussed in problem 30 where the unconstrained choice of leisure hours was 200. Also suppose that the worker is constrained to consume 250 leisure hours and that these extra 50 leisure hours come about through anticipated layoffs.

38a. If the worker receives a payment of $56 through the unemployment insurance program for the extra time spent on layoff, find the size of the compensating differential that the firm would have to pay for subjecting the worker to these excessive layoffs.

38b. Suppose the firm pays only $30 per worker into the fund used to make the unemployment insurance payment. What would be the consequences for the use of temporary layoffs in the economy?