

11. comparable worth—
12. hierarchical discrimination--
13. hedonic equilibrium—
14. homothetic production function—
15. regression towards the mean--
16. efficiency wages—
17. principal-agent problem—
18. difference-in-difference estimator—
19. deadweight loss of a payroll tax--
20. general vs. specific human capital investments--

Section II. Part one: True, False, or Uncertain (sometimes true). You are graded on your explanation

21. “Kim Jones is able to select her weekly work hours. When a new bridge opened up, it cut one hour off Kim’s commute to work, but Kim did not change her weekly hours of work. This indicates that Kim’s labor supply curve sloped backward.”

22. “If workers underestimate risk on the job (assume that this is true), legislation like the Occupational Health and Safety Act that effectively limits risk on the job will always make workers better off.”

23. “As unemployment insurance benefits increase (say by government legislation), then search theory suggests that workers will have more money to search, thus lowering the average duration of unemployment due to search.”

24. “The superstar phenomenon arises (that the most able get paid several fold more than the average) only in sports markets, where small differences in ability make huge differences in winning games.”

25. “For a worker planning to retire at age 65 and receiving her retirement benefits, a forecast that inflation will rise in the future (an unexpected outcome) will always delay the age of retirement.”

26. “If the firm experiences an increase in labor productivity such that at every level of employment its output is higher than before, the derived demand for labor will fall.”

27. “Workers prefer piece rate over time rate pay only if they are less risk averse.”

28. “The tournament model of compensation works best in occupations involving a lot of on-the-job training.”

Section III.

29. The compensating wage problem in the market for risky jobs. SUPPLY: Assume that the compensating variation for risk (Z , just as in class) varies across workers following a uniform distribution:

$$G(\Delta W) = \Delta W / \varphi \quad \text{where } \Delta W \leq \varphi$$

giving the fraction of workers choosing risky jobs (N_1) as a function of the compensating wage differential, ΔW . The compensating differential ΔW becomes a rent if it is larger than that required (namely Z) to induce them to work.

DEMAND: To keep the analysis simple, we also assume that the Benefit from allowing risk (B) is also uniformly distributed so that

$$3) F(\Delta W) = \Delta W / \alpha \quad \text{where } \Delta W \leq \alpha$$

is the number of firms for whom B is less than the compensating wage ΔW so that it is cheaper (in terms of lost output) to have a safe production environment than it is to pay the extra wages associated with risky work.

- a) Show that supply curves slope upward and demand curves slope downward (where the relative employment of risky to safe workers (N_1/N_0) is a function of the wage differential, ΔW).
- b) Find the (at least the implicit) equilibrium wage differential, ΔW .
- c) What happens to the relative number of risky workers and the compensating wage when risk aversion increases (i.e., φ increases)?

30. a. Describe what determines the benefits paid out under workers' compensation and unemployment insurance (describe the institutional framework—i.e., not supply and demand).

b. What are the moral hazard issues with respect to workers' compensation and unemployment insurance, and how do these systems address workers' moral hazard incentives?

31. Oaxaca Wage Decomposition

Suppose that we have the following wage equation for males:

$$\text{Wage}^M = \hat{\beta}_0^M + \hat{\beta}_1^M \text{Education}^M + \hat{\beta}_2^M \text{Professional}^M, \text{ and for females}$$

$$\text{Wage}^F = \hat{\beta}_0^F + \hat{\beta}_1^F \text{Education}^F + \hat{\beta}_2^F \text{Professional}^F$$

Suppose that we have the following coefficient estimates and sample means:

$$\text{Wage}^M = 600 \quad \hat{\beta}_0^M = 125$$

$$\hat{\beta}_1^M = 25 \quad \text{Education}^M = 15 \text{ (on average, males have 15 years of schooling)}$$

$$\hat{\beta}_2^M = 1000 \quad \text{Professional}^M = .10 \text{ (10 percent of male workers are professionals)}$$

$$\text{Wage}^F = 400 \quad \hat{\beta}_0^F = 115$$

$$\hat{\beta}_1^F = 20 \quad \text{Education}^F = 13$$

$$\hat{\beta}_2^F = 500 \quad \text{Professional}^F = .05$$

a. What is proportion of the wage difference due to discrimination (using the Oaxaca Decomposition)? (show all work for credit—no steps shown, no credit)

b. What are some of the potential problems with using this decomposition?

32. Give two of Marshall's four rules of labor demand, with examples of how they can be used to understand labor market institutions. (hints: the formula derived in notes and used in class, but you don't need to get the formula. Just the rules and their implications.)