

1. Briefly state and justify your position on each of the following proposals:
 - a) Women and minorities should be paid the same wage as white males, provided the work is comparable.
 - b) The United States should close its boundaries to all immigration.
 - c) The federal government should take measures to achieve the 4 percent unemployment rate specified by the Humphrey-Hawkins Act of 1978.
 - d) So-called "right-to-work laws," which specify that worker who refuse to join unions cannot thereby be deprived of their jobs, should be repealed.
 - e) Conditions of worker health and safety should be determined by the labor market, not be governmental regulations.

Labor Supply and Participation

2. What information is embodied in (a) an indifference curve and (b) the budget line in the work-leisure model? Why are indifference curves (a) downward-sloping and (b) convex to the origin? Draw several indifference curves and a single budget line and illustrate a worker's optimal position.
3. On a labor-leisure diagram, illustrate the impact on desired hours of work resulting from an increase in non-wage income. Assume leisure is a normal good.
4. Explain what is meant by income and substitution effects of a change in the wage rate. In which direction do these effects go? If the income effect is more powerful than the substitution effect, what will the individual's labor supply curve look like?
5. Indicate in each of the following instances whether the specified circumstances will cause a worker to want to work more or fewer hours. [Substitution Effect = SE; Income Effect = IE]
 - a) the wage rate increases and the SE is greater than the IE.
 - b) the wage rate decreases and the IE is greater than the SE.
 - c) the wage rate decreases and the SE is greater than the IE.
 - d) the wage rate increase and the IE is greater than the SE.
6. What set of circumstances will tend to cause an individual to choose not to participate in the labor force? What generalizations can you formulate on the basis of (a) education, (b) the presence of preschool children, (c) level of husband's income, (d) race, (e) location of a household (urban or rural) on the one hand, and the probability that a married woman will be a labor force participant on the other?
7. Fred Glick receives \$100 per week in dividends and interest from his vast financial empire. He is just as happy if he works 1 hour per week to raise his income to \$105 or works 2 hours a week to raise his income to \$112 as he is when he does not work at all.
 - a) What is Fred's reservation wage? (Use a graph in your answer.)
 - b) Suppose you offered Fred a job at \$5.50 per hour. Would he take it?
 - c) If dividend rates fall because of a recession, what will happen to Fred's reservation wage?
8. Several years ago a number of people proposed a credit income tax. Each person would receive a \$1000 grant no matter what. To pay for this the average rate of taxation of labor income would rise from the current 15 percent to 20 percent. Assume that the tax rate is the same on all workers (the tax is not progressive now or after the proposal is instituted). Analyze how typical workers' labor-force participation rates and hours supplied would differ before and after the imposition of this proposal.

9. Suppose our welfare system was structured *initially* as follows: all people earning below income $\$X$ would be given a cash grant to bring their income up to $\$X$.
 - a) Draw a graph showing the budget constraint for this program.
Next, suppose we changed the welfare system to incorporate a *work test*. Persons who work *fewer* than Y hours get no welfare payment at all. Above Y hours of work, people receive a welfare payment sufficient to bring their incomes to $\$X$.
 - b) Draw in the relevant budget constraint on your graph above.
 - c) Which system has stronger work incentives? Why?
10. In the US, federal law requires firms to pay overtime premiums to some workers who work more than 40 hours per week. The overtime wage becomes 1.5 times the normal wage.
 - a) Draw a budget constraint showing an overtime premium that takes effect for hours worked in excess of 40 hours per week.
 - b) Suppose a worker is maximizing utility by working 40 hours per week in the absence of an overtime premium. Will the overtime premium make this worker want to work more or less? Show this in a diagram.
11. In the United States payments to disabled workers on the average replace about one-half of their former earnings. In some other countries such as Sweden and The Netherlands disabled workers receive as much as 70 to 90 percent of their average earnings. We also observe that the proportion of workers receiving disability benefits is much lower in the United States than in the latter two nations. Are these findings consistent with the work-leisure model? Explain.
12. What has happened to the aggregate labor force participation rate in the post-WWII period? To the participation rates of males and females? What factors account for the declining participation rates of older males? What factors account for the change in the participation rates of married women?
13. Under current law, most Social Security recipients do not have to pay federal or state income taxes on their Social Security benefits. Suppose the government proposes legislation that will start taxing the benefits at the same rate as other income. What is the impact of the proposed tax on the optimal retirement age?
14. Use the labor/leisure model to analyze the impact of child care costs on the decision of a married woman with children to participate in the labor force.
 - a) First, draw a budget constraint assuming the wage is $\$6$ per hour and the woman has $\$200$ per week of nonlabor income. Then draw in an indifference curve so that her equilibrium hours of work are 20 per week.
 - b) Next, assume if the woman works she must pay child care costs. These costs are of two kinds. The first is a lump sum or *fixed* cost of $\$50$ per week for, say, transportation of the child to a day care facility. The second is a *variable* cost of $\$2$ for each hour the child is at the day car facility. Given these two types of costs, draw the new budget constraint for this woman.
 - c) Without child care costs, the woman maximized utility by working 20 hours; with child care costs, will this woman continue to work or will she drop out of the labor force? To determine this, draw an indifference curve so that it has a tangency point with the new budget constraint. Is this level of utility higher or lower than if she did not work at all? Show this in the graph. Would the effect of child care costs be different if she had originally been working 50 hours per week? Show this and explain why.
15. Assume under an income maintenance program that the basic benefit (income guarantee) is $\$9000$ and the benefit-reduction rate is 50%.
 - a) If a family has an earned income of $\$3000$ per year, what will be its subsidy payment?
 - b) What is the break-even level of income?
16. "The added-worker effect can be explained in terms of the income effect, while the discouraged-worker effect is based on the substitution effect." Do you agree? Why or why not?

17. In what specific ways does Becker's model of the allocation of time differ from the simple work-leisure choice model? Compare the functioning of the income and substitution effects in each of the two models. Do the two effects have the same impact upon labor market work in both models?

Human Capital

18. Why might the decision to undertake an educational program be treated as an investment? From a private perspective, what are the costs and benefits associated with obtaining a college education? What are the costs and benefits from a social perspective? Explain why it is necessary to determine the present value of cost and benefits in making a rational human capital investment decision.
19. During the 1960's, high school guidance counselors often told students that college graduates had lifetime earnings which were \$100,000 more than the lifetime earnings of high school graduates. Does this necessarily measure accurately the earnings benefits from college graduation? Why or why not?
20. Although an eminent labor economist calculated that the private rate of return to investment in a Ph.D. in English literature is -10 percent, hundreds of people still pursue such a degree. Is this evidence of irrational behavior? How can you explain this result in terms of human capital theory?
21. Floyd is now working on a job which pays \$8000 per year. He is contemplating a 1-year automobile mechanics course which entails costs of \$1000 for books and tuition. Floyd estimates that the course will increase his income to \$13,000 in each of the 3 years following completion of the course. At the end of those 3 years, Floyd plans to retire to a commune in Boulder, Colorado. The current interest rate is 10 percent. Is it economically rational for Floyd to enroll in the course?
22. Billy Bob Smith is a 58-year-old construction worker who earns \$16 per hour. While driving his backhoe he hit a gas main that the gas company failed to inform him was present at the construction site. Billy Bob is severely injured and cannot work again. As a consulting economist to Billy Bob's lawyer, what is the present value of the lost earnings you would recommend seeking from the gas company? Aside from his earnings, what else do you need to know to make the calculation?
23. Suppose that you are a professional guidance counselor. Freddie Mac, a senior at Marietta College, is thinking about attending graduate school to get his MBA and comes to you for sound advice. Write down a **two-period** formula (i.e., period one is going to grad school; period two is working with MBA) explaining the monetary factors involved in such a decision. Define your terms and explain each actors' impact on the decision. What other factors might Freddie consider?
24. Explain the difference between general and specific training. Why is it the case that firms will generally not provide general training? Under what situations would the firm provide such training?
25. Suppose we compare two firms, both paying the same wage rate. One firm spends, on average, \$3,000 to recruit and train a new entry-level managerial employee. The other spends, on average, only \$1,500 per new employee. Other things equal, which firm do you think expects to retain its employees longer and why?
26. Many colleges and universities are not too concerned about student enrollments when the economy enters a recession. In fact, college enrollment tends to be countercyclical. Use a model of human capital to suggest why this might be the case.
27. Why does investment in on-the-job training diminish with age?