

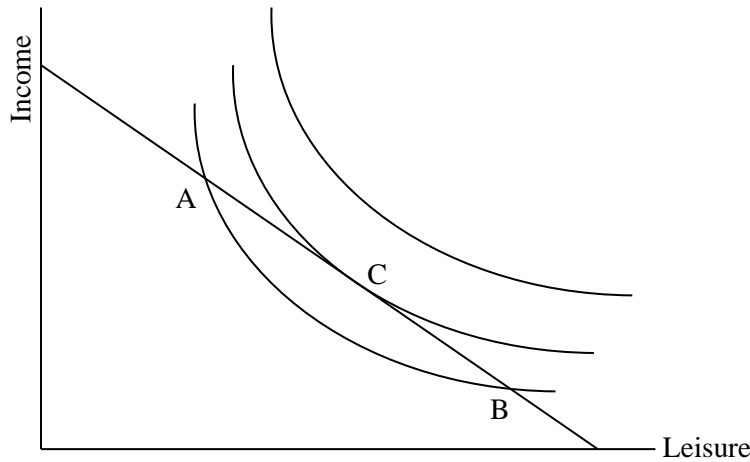
## Chapter 02 - The Theory of Individual Labor Supply

**Chapter 2 MULTIPLE-CHOICE QUESTIONS**

1. In the context of the basic work-leisure model, “work” is defined as:
  - a. time devoted to a paying job or household work
  - b.\* time devoted to a paying job
  - c. time devoted to any “undesirable” activity
  - d. all time not devoted to rest and relaxation
  
2. In the context of the basic work-leisure model, “leisure” time includes:
  - a. only time devoted to rest and relaxation
  - b. any time not devoted to either a paying job or household work
  - c. any time devoted to anything desirable
  - d.\* any time not devoted to a paying job
  
3. The slope of an indifference curve at any point reflects the:
  - a.\* rate at which a person is willing to substitute leisure for income
  - b. wage rate
  - c. income effect
  - d. substitution effect
  
4. Indifference curves are convex to the origin because:
  - a. at a lower income, a person is more willing to sacrifice income for additional leisure
  - b.\* at a lower income, a person is less willing to sacrifice income for additional leisure
  - c. at any income level, a person is willing to sacrifice the same amount of income for additional leisure
  - d. the marginal rate of substitution of leisure for income is negative
  
5. The convex shape of a standard indifference curve reflects:
  - a.\* a diminishing marginal rate of substitution of leisure for income
  - b. an increasing marginal rate of substitution of leisure for income
  - c. a constant marginal rate of substitution of leisure for income
  - d. the wage rate
  
6. On an indifference map reflecting the tradeoff between income and leisure, higher levels of utility are achieved by moving:
  - a. from left to right along a given indifference curve
  - b. from right to left along a given indifference curve
  - c.\* to an indifference curve further from the origin
  - d. to an indifference curve closer to the origin
  
7. For income and leisure time, a higher level of utility is achieved by moving to the \_\_\_\_\_ on an indifference \_\_\_\_\_.
 

a. northeast; curve	c.* northeast; map
b. southwest; curve	d. southwest; map

Questions 8 – 10 refer to the following diagram representing Larry’s budget constraint and preferences:

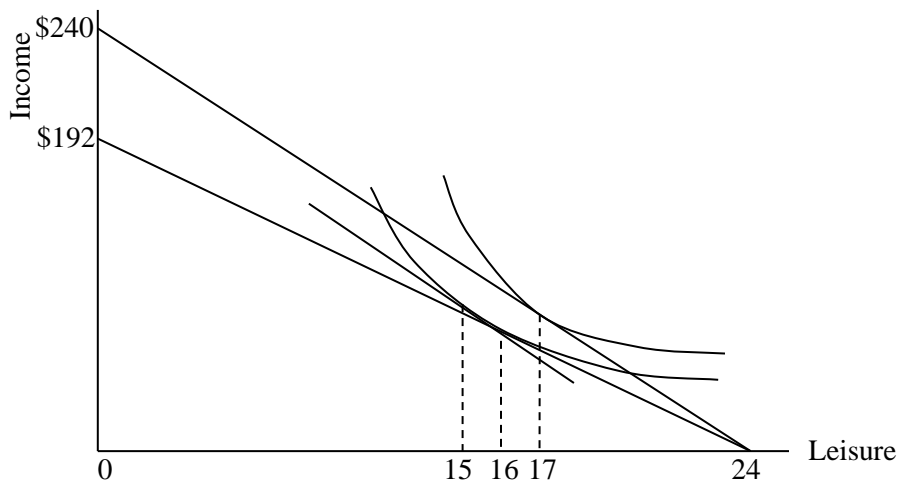


8. Consider the three combinations of leisure and income represented by points A, B, and C. Which of the following is a correct statement?
  - a. Larry prefers A to B
  - b. Larry prefers A to C
  - c. Larry prefers B to C
  - d.\* Larry prefers C to A
  
9. Which of the following is a correct statement?
  - a.\* At A, Larry’s marginal valuation of leisure is higher than the market wage
  - b. At B, Larry’s marginal valuation of leisure is higher than the market wage
  - c. At C, Larry’s marginal valuation of leisure is lower than the market wage
  - d. At B, Larry values leisure the same amount as at A
  
10. At point A, Larry’s marginal rate of substitution of leisure for income:
  - a. exceeds the wage and Larry would like to work more hours
  - b.\* exceeds the wage and Larry would like to work fewer hours
  - c. is less than the wage and Larry would like to work more hours
  - d. is less than the wage and Larry would like to work fewer hours
  
11. On a standard income-leisure diagram, Sara has steeper indifference curves than John. This likely reflects the fact that:
  - a. Sara likes leisure but dislikes income while John likes both
  - b. Sara likes income but dislikes leisure while John likes both
  - c.\* Sara values leisure more highly compared to income than John does
  - d. John values leisure more highly compared to income than Sara does
  
12. The higher the individual’s wage rate:
  - a.\* the steeper the budget constraint
  - b. the lower the marginal rate of substitution of leisure for income
  - c. the greater the desired number of hours of work
  - d. the greater the desired number of hours of leisure

13. The slope of a standard budget constraint reflects:
  - a. a diminishing marginal rate of substitution of leisure for income
  - b. an increasing marginal rate of substitution of leisure for income
  - c. a constant marginal rate of substitution of leisure for income
  - d.\* the wage rate
  
14. In an income-leisure diagram, the wage rate is graphically represented by the:
  - a. slope of the indifference curves
  - b. curvature of the indifference curves
  - c.\* slope of the budget line
  - d. tangency of the budget line with an indifference curve
  
15. The optimal work-leisure position is achieved where:
  - a.\* the MRS  $L, Y$  is equal to the wage rate
  - b. the difference between the MRS  $L, Y$  and the wage is greatest
  - c. the wage rate is greatest
  - d. the MRS  $L, Y$  is greatest
  
16. An individual whose MRS  $L, Y$  exceeds the wage at her current combination of leisure and income could increase utility by:
 

a. working more hours	c. increasing her income
b.* working fewer hours	d. none of the above; her utility is maximized

Questions 17 – 20 refer to the following diagram:



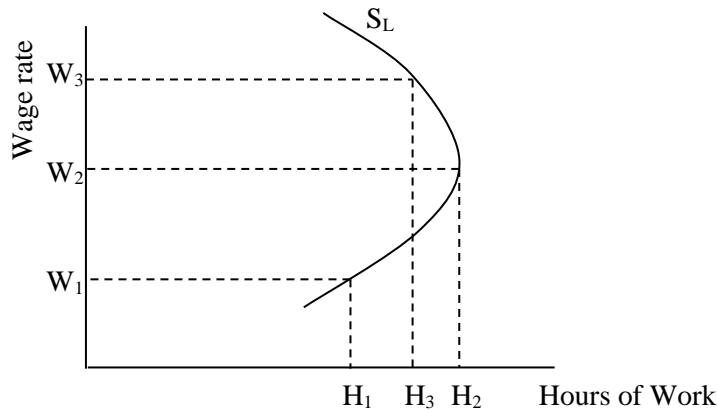
17. Considering the two budget lines in the diagram, if the person's optimal number of hours worked is seven hours, then the wage rate must be:
 

a.* \$10	c. \$240
b. \$192	d. cannot be determined
  
18. The person has non-wage income of:
 

a.* \$0	c. \$192
b. \$10	d. \$240

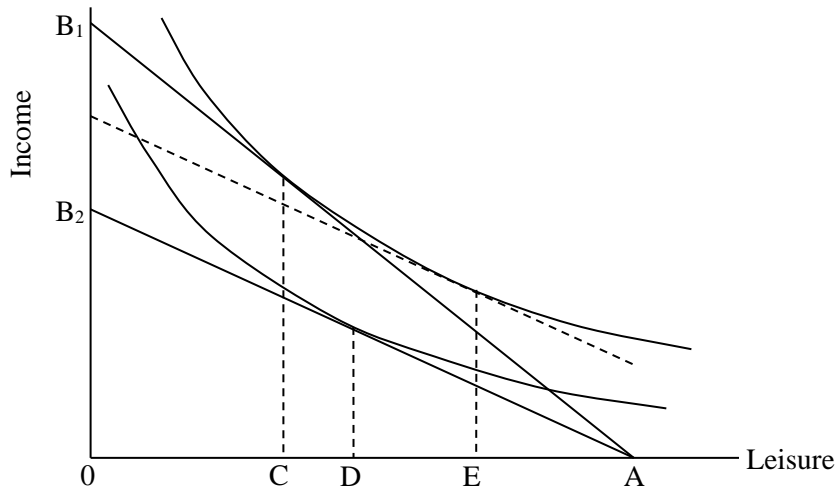
19. If this person's wage rate falls as illustrated in the diagram, then:
- the substitution effect is stronger than the income effect
  - \* the income effect is stronger than the substitution effect
  - this person's non-wage income will fall as well
  - the substitution effect causes desired work hours to increase
20. The income effect of the illustrated wage decrease causes this individual to work:
- one less hour
  - one more hour
  - two less hours
  - \* two more hours
21. The income effect is:
- the combination of leisure and wage rate that maximizes one's income
  - \* the part of the total change in desired work hours that is due to the change in real income resulting from a change in the wage rate
  - the part of the total change in desired work hours that is due to a change in the wage rate, with real income or utility constant
  - always dominated by the substitution effect
22. The substitution effect is:
- the combination of leisure and wage rate that maximizes one's income
  - the part of the total change in desired work hours that is due to the change in real income resulting from a change in the wage rate
  - \* the part of the total change in desired work hours that is due to a change in the wage rate, with real income or utility constant
  - always dominated by the income effect
23. An increase in the wage rate will increase desired hours of work if:
- the income effect and substitution effect cancel one another
  - the income effect dominates the substitution effect
  - \* the substitution effect dominates the income effect
  - accompanied by an increase in nonwage income
24. Which one of the following would be most likely to shift the labor supply curve to the right?
- A decrease in the wage rate
  - A change in the indifference map following deterioration of working conditions
  - \* A change in the indifference map following an improvement in working conditions
  - A significant increase in dividend and interest income
25. Consider the impact of a general increase in real wages. Empirical evidence suggests that men will tend to work \_\_\_\_\_ hours and women will tend to work \_\_\_\_\_ hours.
- more; fewer
  - more; about the same
  - fewer; fewer
  - \* about the same; more
26. Which of the following would unambiguously predict a decrease in desired hours of work?
- \* The substitution effect of a wage decrease
  - The income effect of a wage decrease
  - A wage increase
  - The substitution effect of a decline in income tax rates

Questions 27 – 29 are based on the following diagram, which shows a labor supply curve for an individual.



27. If the wage rises from  $W_1$  to  $W_2$  we may conclude that:
- the income effect is stronger than the substitution effect
  - the income effect and substitution effects are equal
  - \* the substitution effect is stronger than the income effect
  - labor supply is perfectly inelastic
28. If this person were now willing to supply only  $H_1$  hours of work at  $W_3$ , we could conclude that:
- labor supply increased (the curve shifted to the right)
  - \* labor supply decreased (the curve shifted to the left)
  - the person's preferences must have changed
  - the substitution and income effects are now equal
29. Of the following, which one would most likely cause this person to supply  $H_1$  hours of work at  $W_3$  rather than the current  $H_3$  hours?
- \* This person's spouse receives a substantial income increase
  - A decrease in this person's marginal valuation of leisure time
  - Congress abolishes an income maintenance program
  - This person's spouse suffers a substantial cut in income
30. Suppose an individual worker is on the backward-bending portion of her labor supply curve. Then, for a wage increase, the:
- income and substitution effects both increase desired work hours
  - income and substitution effects are equal
  - \* income effect is stronger than the substitution effect
  - substitution effect is stronger than the income effect

Questions 31 – 35 are based on the following diagram:



31. If the current wage rate results in a budget constraint of  $AB_1$ , the individual will choose:
  - a. 0C hours of work and AC hours of leisure
  - b. AD hours of work and 0D hours of leisure
  - c. 0D hours of work and AD hours of leisure
  - d.\* AC hours of work and 0C hours of leisure
  
32. The shift from budget line  $AB_1$  to  $AB_2$  implies a(n):
 

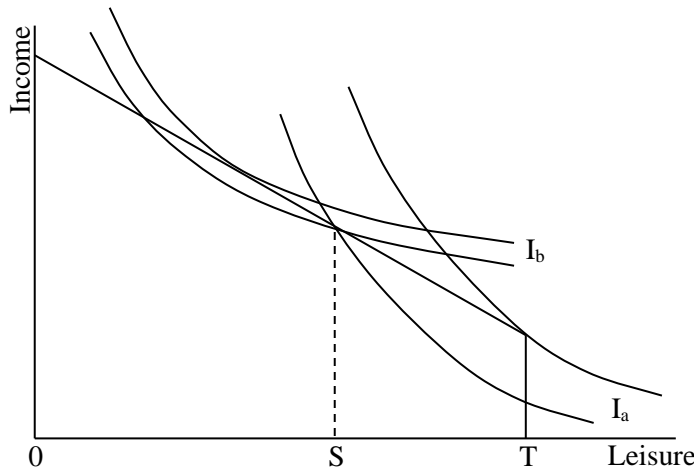
a.* decrease in the wage rate	c. increase in the wage rate
b. decrease in non-wage income	d. increase in non-wage income
  
33. The equilibrium positions shown imply that in the relevant wage range, this person is:
  - a.\* on the upsloping segment of the individual labor supply curve
  - b. on the backward-bending segment of the individual labor supply curve
  - c. at the point on the individual labor supply curve where the income and substitution effects are equal
  - d. being offered a wage less than the reservation wage
  
34. The equilibrium positions shown in the diagram imply that for a wage increase:
  - a. both the income and substitution effects increase desired work hours
  - b. both the income and substitution effects reduce desired work hours
  - c. the income effect increases desired work hours and the substitution effect reduces desired work hours
  - d.\* the income effect reduces desired work hours and the substitution effect increases desired work hours
  
35. In the diagram, the substitution effect associated with a wage increase is shown by the distance:
 

a. CD	b. DE	c.* CE	d. 0C
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36. Suppose an individual worker is on the upsloping portion of her labor supply curve. Then for a wage increase the:
  - a. income and substitution effects both increase desired work hours
  - b. income and substitution effects are equal
  - c. income effect dominates the substitution effect
  - d.\* substitution effect dominates the income effect

37. A 10% increase in the wage induces Margy to increase her desired work hours by 2%. Over this range of wages, Margy's wage elasticity of labor supply is:
- a. elastic
  - b. unit elastic
  - c.\* inelastic
  - d. negative
38. For Jenny, the income effect of a wage increase dominates the substitution effect. Jenny's wage elasticity of labor supply is:
- a. elastic
  - b. unit elastic
  - c. inelastic
  - d.\* negative
39. Which of the following circumstances will increase the likelihood of an individual being a non-participant in the labor market?
- a. High earnings capacity in the labor market
  - b. The absence of non-wage income
  - c. A potential market wage that exceeds the individual's reservation wage
  - d.\* Availability of substantial non-wage income
40. Steven's reservation wage is \$12 and his market wage is \$11. We can conclude that:
- a. Steven's marginal rate of substitution of leisure for income is less than his reservation wage
  - b.\* Steven will be a nonparticipant in the labor market
  - c. Steven's subjective valuation of nonmarket time is less than the value of work
  - d. Steven has no nonwage sources of income
41. Shanita is required by her employer to work a standard eight-hour workday. Suppose her marginal rate of substitution of leisure for income is less than the wage rate at this level of work effort. We can conclude that Shanita will:
- a.\* feel underemployed
  - b. probably have a higher than average absenteeism rate
  - c. feel overemployed
  - d. prefer to work part-time, if such a job is available at the same wage rate
42. Sammy is required by her employer to work a standard eight-hour workday. Suppose her marginal rate of substitution of leisure for income exceeds the wage rate at this level of work effort. We can conclude that Sammy will:
- a. feel underemployed
  - b. desire to find a second job
  - c.\* feel overemployed
  - d. desire to work voluntary overtime
43. Compared to workers with less education, people who have more education tend to earn higher wages and have higher pensions upon retirement. Given this observation, which of the following statements best explains why those persons with more education also retire at a later age?
- a. If tastes for leisure are the same, the effect of the higher pension must outweigh the effects of the higher wages
  - b.\* If tastes for leisure are the same, the effects of the higher wages must outweigh the effects of the higher pensions
  - c. Since higher wages and pensions both suggest a lower retirement age, those with more education must value leisure less

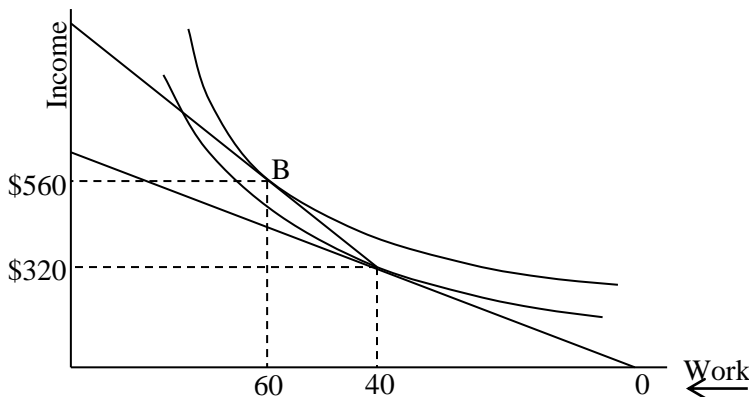
- d. Regardless of the tastes for leisure, the higher wages and pensions would both suggest a higher retirement age

Questions 44 and 45 are based on the following diagram. TS represents the standard 40-hour workweek. Indifference curves labeled with subscripts “a” and “b” are for individuals A and B, respectively.



44. Assuming workers must work TS hours or not work at all, worker A will:
- a.\* not participate in the labor force
  - b. be at an optimum at TS hours of work
  - c. work the standard workweek but will feel overemployed
  - d. work the standard workweek but will feel underemployed
45. Assuming workers must work TS hours or not work at all, worker B will:
- a. not participate in the labor force
  - b. be at an optimum at TS hours of work
  - c. work the standard workweek but will feel overemployed
  - d.\* work the standard workweek but will feel underemployed

Questions 46 and 47 refer to the following diagram:



46. Suppose this worker is currently working 40 hours per week and earning \$8 per hour. Which one of the following would cause a move to point B, and the subsequent increase in work hours to 60?
- a.\* The availability of overtime work at \$12 per hour



- b. The availability of a moonlighting job that pays \$6 per hour
  - c. An increase in the straight-time wage to \$9.33 per hour
  - d. An increase in non-wage income of \$240
47. Suppose this worker's union negotiates an increase in the straight-time wage from \$8 to \$9.33 per hour with no bonus for overtime. This plan would allow earnings of \$560 at 60 hours per week. Assuming this worker can freely choose the number of hours worked, he will choose to work:
- a. 60 hours per week
  - b.\* fewer than 60 hours per week
  - c. more than 60 hours per week
  - d. more than 60 hours per week if the income effect dominates; less otherwise
48. Suppose a working mother is currently ineligible for any government assistance. If she were then to become eligible for an income maintenance program that incorporates both a basic benefit and a positive benefit-reduction rate:
- a. both the income and substitution effect will cause her to increase her work effort
  - b.\* both the income and substitution effect will cause her to decrease her work effort
  - c. her work effort will increase if the substitution effect is stronger than the income effect
  - d. her work effort will decrease if the substitution effect is stronger than the income effect

Questions 49 and 50 are based on the following information: Assume under an income maintenance program that the basic benefit (income guarantee) is \$9000 and the benefit-reduction rate is 50%.

49. If a family has an earned income of \$3000 per year, its subsidy payment will be:
- a. \$6000
  - b.\* \$7500
  - c. \$9000
  - d. \$0
50. The break-even level of income is:
- a. \$4500
  - b. \$6000
  - c. \$9000
  - d.\* \$18,000
51. Suppose an income maintenance program offers a basic benefit of \$7500 per year and the benefit-reduction rate is 33 1/3%. The break-even level of income is then:
- a. \$2500
  - b. \$7500
  - c. \$15,000
  - d.\* \$22,500
52. The Personal Responsibility and Work Opportunity Act of 1996:
- a. moved control over welfare spending from states to the federal government
  - b. removed lifetime limits on welfare eligibility
  - c.\* with few exceptions, requires welfare recipients to work after two years of receiving assistance
  - d. provided immediate welfare benefits to qualified immigrants
53. In the years following enactment of welfare reform in 1996, welfare case loads:
- a. dropped slightly
  - b. increased slightly
  - c.\* dropped by more than 50%
  - d. increased by almost 50%
54. (*World of Work 2-2*) Empirical evidence indicates that inheritances \_\_\_\_\_ labor force participation; further, persons receiving inheritances tend to be \_\_\_\_\_ likely to work in the years preceding the inheritance.
- a. have no impact on; less
  - b. reduce; more
  - c. reduce; equally
  - d.\* reduce; less

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55. (*World of Work 2-3*) One disadvantage of computer-assisted scheduling of more flexible work schedules for retail workers is that:
- a. stores are less likely to have enough personnel to meet customer demand
  - b. labor costs will likely rise
  - c. manager time devoted to scheduling will rise
  - d.\* unusual work shifts make childcare harder to schedule
56. (*World of Work 2-4*) The Earned Income Tax Credit:
- a. reduces desired hours of work for those already in the labor force
  - b.\* increases the labor force participation rate
  - c. always increases with increases in earnings
  - d. is phased out as the number of children increases