

Economics 150A - Labor Economics

Assignment #2

Due Date: Thursday, April 24

Answer the following questions. You may hand-write mathematical answers and diagrams, but ALL text must be typed. I will not mark handwritten answers, they will receive a grade of 0. You **must** defend all answers mathematically or graphically.

Question 1

Big Bird is about to turn 55, at which point he becomes eligible for retirement. He currently earns \$25 per hour and chooses to work 8 hours per day (he can choose to work up to 12 hours).

- (a) If the retirement package offers him \$150 per day if he resigns from Sesame Street should he retire?
- (b) Alternatively, he could retire from Sesame Street, collect his pension, and become a Greeter at Wal-Mart at an hourly wage rate of \$10. Is this option attractive to Big Bird? If so, will he work more or less than 8 hours? And, why? If not, why not?
- (c) Just before Big Bird has decided what to do, Barney offers Big Bird a minor role on "Barney's Dinosaur Power Hour." Barney tells Big Bird that he can choose to work for any amount of time between 0 and 4 hours per day at an hourly wage rate of \$40. Should Big Bird retire from Sesame Street and take Barney up on his offer? If so, how many hours should he choose to work and why? If not, why not?

Question 2

The government of Oz institutes the following Earned Income Tax Credit (EITC) program. For every dollar that you earn, up to a maximum of \$10,000, the government will increase your wage by 50%, for a maximum subsidy of \$5,000. For every dollar that you earn above \$10,000 the government reduces the subsidy by \$0.50 until the subsidy hits \$0. Consider a person who earns \$10 per hour. Assume that people can choose between labor and leisure over 16 hours per day (they must sleep for 8 hours).

- (a) At how many hours of work does the subsidy hit zero?
- (b) What impact does the EITC program have on the labor supply decision of a person who earns \$10 and choose to work 8 hours per day 5 days a week before EITC was introduced?
- (c) For a person earning \$10 per hour who chooses to work 1000 per year under EITC, what impact does the institution of welfare at \$1250 per month have on the hours of work per year that he chooses to supply?

Question 3

Sally can work up to 3120 hours each year. She earns a fixed hourly wage of \$25. Sally owes a 10 percent payroll tax on the first \$40,000 of income. Above \$40,000 of income, there is no payroll tax. Sally also faces a progressive tax rate. There is no income tax on the first \$10,000 of income. From \$10,000 to \$60,000, the marginal income tax rate is 25 percent. Above \$60,000, the marginal tax rate is 50 percent. Graph Sally's budget constraint.