

**Problem Set 2**  
**Public Economics**  
**Professor Hungerman**

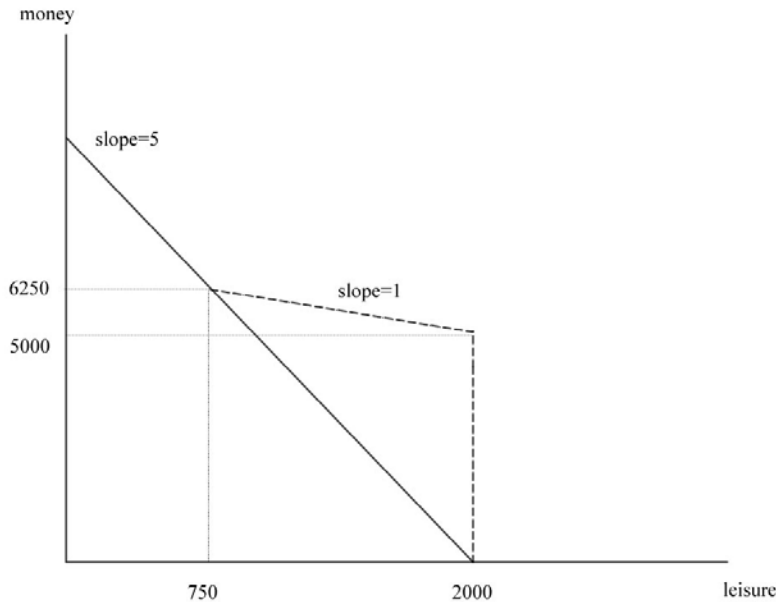
Medicaid (and some AFDC)

1. Consider an individual who gets utility from leisure and from money. There are 2000 hours in the year to divide between leisure and work. If the individual does not work at all, they qualify for \$5000 in AFDC benefits. If they work, they earn \$5 an hour. Each dollar earned lowers AFDC benefits by an amount  $\tau_{AFDC}$ , until AFDC benefits fall to zero and the individual is no longer in the AFDC program.

A. Suppose that  $\tau_{AFDC}$  equals 80 cents. How much can this individual earn before they are no longer in the AFDC program? How many hours can they work?

*They can work 1250 hours and earn \$6250 dollars.*

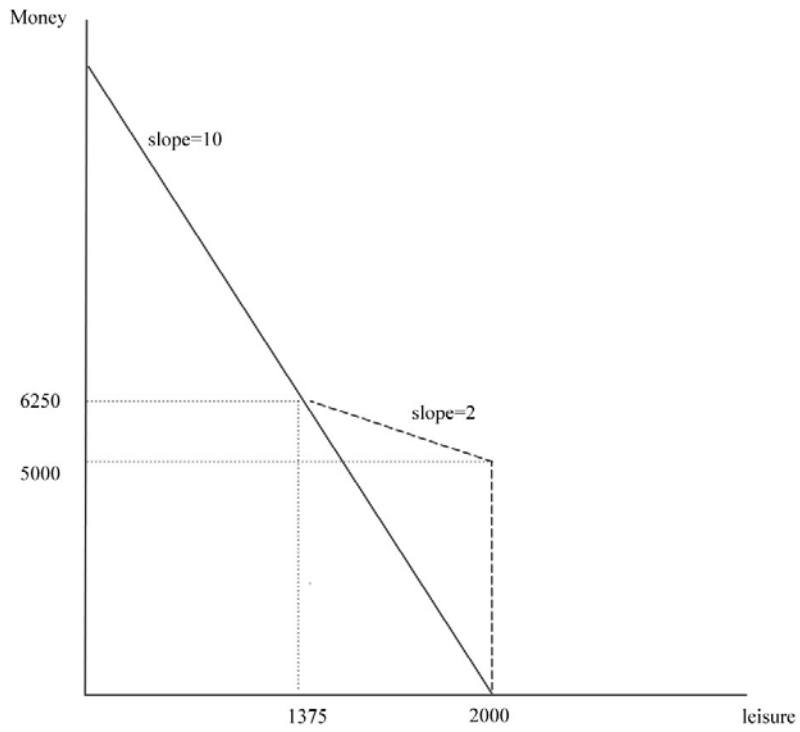
B. Draw a picture of the budget line that this individual faces, with leisure on the x axis and money on the y axis.



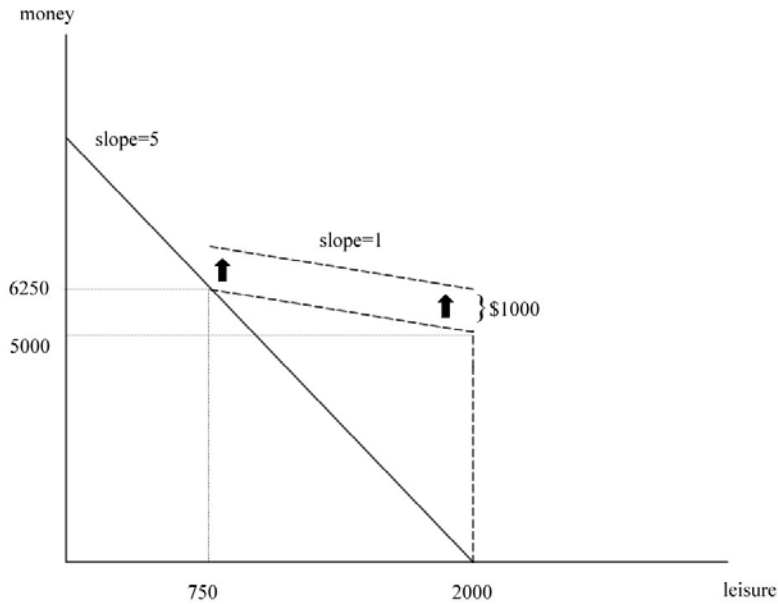
C. Suppose the individual's wage rate increased to 10 dollars an hour. How does this change the answers to part A?

*Again, earnings will be \$6250. But now the individual can only work 625 hours.*

D. Draw a new picture of the budget line where the wage rate is 10.



E. Suppose that Medicaid is introduced, where eligibility to Medicaid is worth \$1000. If you are eligible for any AFDC benefits you can get Medicaid too, but if you are not eligible for AFDC you do not get Medicaid. Add Medicaid to your picture from Part B.



F. Now that you added Medicaid to your picture from Part B., explain how creating Medicaid will affect hours worked by individuals. Will some individuals work more? Will some work less?

*Some may work more and some may work less, as discussed in class. Is there a difference on the intensive vs. extensive margin?*