

Name \_\_\_\_\_

Problem Set 6  
Econ 320

Use the labor-leisure model to answer these questions. You should draw the budget constraints but you do not need to show the indifference curves. Assume leisure is a normal good.

Assume an ISU graduate has  $\bar{Y}$  nonlabor income and can earn a wage  $W_1$  after graduating from college.

Under the Federal Direct Student Loan Payment, borrowers now have the option of choosing the Income Contingent Repayment (ICR) Plan:

<http://www.ed.gov/offices/OSFAP/DirectLoan/RepayCalc/dlindex2.html>

Under ICR, graduates repay their loans as a proportion  $t$  of their labor income. The previous loan arrangement required that graduates pay a fixed amount  $F$  per year to repay the loan.

- a. In Figure 1, Draw the ISU graduate's budget constraint with a wage of  $W_1$ , and nonlabor income of  $\bar{Y}$ , assuming the graduate has no loans to repay.
- b. Show in Figure 1 how the ICR scheme alters the budget constraint of the ISU graduate relative to the budget constraint with no loan repayment. What are the income and/or substitution effects of the ICR program?
- c. In Figure 2, redraw the "no loan" budget constraint. Show in Figure 2 how the traditional loan arrangement that involves a fixed payment of  $F$  per year alters the graduate's budget constraint relative to the no loan repayment case. What are the income and/or substitution effects of the traditional loan repayment?
- d. In which scheme are work incentives stronger?
- e. The Congressional Research Service estimated that the default rate on ICR loans was 25 percent higher than on traditional repayment plans. Why?

Figure 1

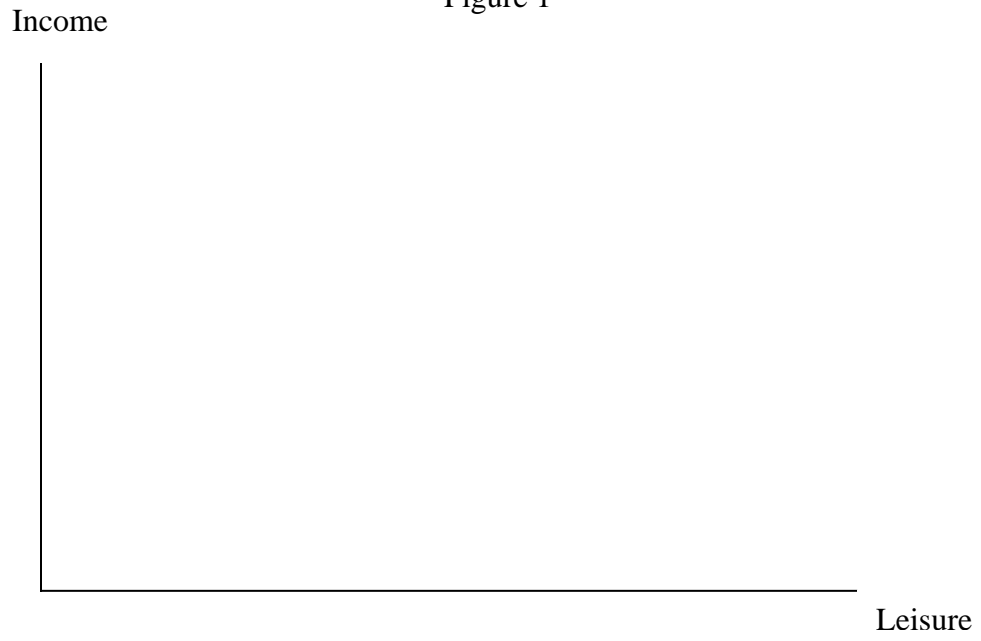


Figure 2

