

PROBLEM SET 2
Due Wednesday, October 14

A. Book problems

Problems 4, 5, 7, and 13 in Chapter 2

B. Analytical problems

The US Congress periodically experiments with schemes designed to reduce child care costs for working parents, especially those with low earnings.

1. Compare and contrast the labor supply implications of the following programs:

- (i) A “child allowance,” i.e., an annual lump-sum tax credit for anyone with children
- (ii) A “child allowance” for working women with incomes below the poverty line. The credit phases out at higher incomes.
- (iii) Subsidized daycare-center-provided care for the children of working women
- (iv) Subsidized daycare-center-provided care for all children

Use the model of home production outlined in class, where child care can be purchased or produced at home. Analyze the labor supply consequences of each scheme with a graph. Assume that women who work in the market must obtain child care from day care centers while they are on the job.

2. Recent years have seen a large increase in the number of welfare recipients (primarily unmarried women with children) entering the labor market. But some social critics believe that mother-provided child care is better for child development than day care provided outside the home. Which policy of the four specified in question 1 seems likely to reduce home production of child care the least? Justify your answer with a graph and a clear explanation of the economic assumptions required to nail this down.

C. Data Analysis

An extract from the March 2008 CPS is posted on the Stellar course web page. This data set contains information on working-age women. The variables included are labor force status, hours/week, age, race, marital status, years of schooling, number of own children under age 6, number of own children under age 18, and family unearned income.

1. Using the information provided with the data, construct dummies for employment status and labor force participation, high school and college graduation status, nonwhite race, non-married status, and number of children 6-18. Report descriptive statistics for all variables in your extract. Check your data for implausible or missing values.

2. Run a regressions of LFP and $\log(\text{hours/week})$ on age, age-squared, the race dummy, dummies for high school and college graduation status, number of children under 6, number of children aged 6-18, the non-married dummy, and unearned income. Are the results of this regression roughly consistent with the time-allocation model discussed in class? Why or why not?

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