**Policy Research Report 1: Multiple Regression (15%)**

**Due: Tuesday September 24th**

Increasing research evidence has indicated the meaningful effect nutrition and family income between the ages of 0 to 5 has on child development (Birch & Gussow 1970; Duncan & Brooks-Gunn 1997). You have been hired as a research consultant for an evaluation study examining the effect of the Women, Infant and Children (WIC) Nutrition Program and Aid to Families with Dependent Children (AFDC) program participation during pregnancy on child reading achievement. This is a large evaluation study using a national probability sample, the Child Development Supplement to the Panel Study of Income Dynamics, and thus has meaningful policy implications.

Using the constructed data set (“good”), the evaluation team has asked you to examine the effect and unique contribution of

(1) WIC program participation during pregnancy (WICpreg) on child reading achievement (readss97) over and above the child’s age in 1997 (age97), family income (faminc97), low birth weight status (bthwht), and parenting practices (HOME97) and

(2) AFDC program participation during pregnancy (AFDCpreg) on child reading achievement (readss97) over and above the child’s age in 1997 (age97), family income (faminc97), low birth weight status (bthwht), and parenting practices (HOME97).

The evaluation team is interested in

(1) each variables individual effect,

(2) the total variation of child reading achievement accounted for by the model,

(3) the unique contribution of each program participations on the variance of child reading achievement, and

(4) which program has a larger effect on child reading achievement.

Thus, you are asked to write a report similar to the results section of a journal article reporting the descriptive statistics (i.e. N, means/medians/proportions, sds, frequencies, and observed ranges) of the variables then multiple regression analyses and interpretation. For examples, please see the journal articles on Canvas on how to format tables and discuss results. Unlike traditional research reports and journal articles where you would focus your interpretation on the independent variables of interest, you will be expected to interpret the regression coefficients for each independent variable. You are also asked to provide in a one to two paragraph concluding statement your recommendations on the importance of each policy for child achievement. In addition, in an appendix, the evaluation team would like to see the syntax of your R program.

Definition of Variables:

WICpreg – Women, Infant and Children (WIC) Nutrition Program participant during pregnancy: 0 = No, 1 = Yes.

AFDCpreg – Aid to Families with Dependent Children (AFDC) program participant during pregnancy: 0 = No, 1 = Yes.

readss97 – Woodcock-Johnson Revised Reading Achievement Test Age Standardized Score. Minimum = 47.5, Maximum = 165.5.

age97 – The child’s age in 1997. Minimum = 3, Maximum = 13.

faminc97 – Total family income in 1997 (in 2002 constant dollars). Minimum = $-72296.26, Maximum = $784610.59.

bthwht – Low birth weight status of the child. 0 = non-low birth weight child, 1 = low birth weight child.

HOME97 – A composite total score of the emotional and cognitive stimulation at home. Minimum = 7, Maximum = 27.