REAL RENTS AND HOUSEHOLD FORMATION: THE EFFECT OF THE 1986 TAX REFORM ACT

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ABSTRACT

Although the economic literature has analyzed some components of the headship decision, study of household formation has been primarily in the realm of demography. We begin with a pure demographic model and expand it to include additional determinants of the decision to remain with parents or not, to marry or not, and to live with a group or separately. Our results, based on a sample of 2355 youth in their twenties, indicate that (1) rental costs, wealth, and the potential wage that a youth could earn are important variables in explaining the outcomes of these choices and (2) including the economic variables significantly changes the estimated impacts of the demographic variables.

One insight that the expanded economic model allows is the prediction that some public policies will affect headship rates of youth. This prediction is of interest because choices of living arrangements often have implications for demands upon public services and housing. We use as an example the 1986 Tax Reform Act and focus on a single outcome: the expectation of higher rental costs. If rentals rise by 20 percent, as predicted by some tax analysts, we estimate a half million reduction in the number of 1986 households formed by youth ages 21 to 29.

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The process of youth leaving their parental household has changed substantially since the 1950s. Youth used to leave their parents' home upon marriage, but they now tend to set up independent households while still single. The age of separation from parents also differs among localities and regions; for example, in 1987 the percentages of 22 and 23 year old youth remaining with their parents in the four census regions varied from 31 in the West, 32 in the South, 37 in the North Central, to 45 in the Northeast. A major goal in this study is to explain the proportion of youth that live independently. We also explain both the marriage decision and the decision of whether to share quarters with unrelated individuals, the other two decisions that act to determine household formations.

Our analysis differs from most prior microeconomic studies primarily by supplementing the usual socio-demographic explanatory variables with a vector of economic determinants.[1] Household formation should depend on both the price of independent living and the individual's ability to pay this price.[2] Obtaining housing price information requires knowledge of the spatial location of the respondent and a contemporaneous housing cost index, a combination contained in few national data sets. We explain the behavior of the respondents in the 1987 wave of the National Longitudinal Survey of Youth, which contains the county of residence, and we append a housing cost survey that reports rental costs for a standardized amount of housing in 175 cities. The NLSY includes information on the respondent's wealth and other data from which we can estimate the wage that could be earned if the respondent worked full time.

One reason for studying household formation is that projections of usage of public services and welfare programs require an estimate of the number of households that will demand the service. Another reason is that

models of regional and local development (especially the housing demand component) require estimates of the number of households. To the extent that the quantity of households responds to changing explanatory variables, demands upon state, local, and the federal government may vary substantially over time and across communities.

The Tax Reform Act of 1986 likely had a major impact on household formations by young adults through its changes in the tax treatment of rental housing. Tax depreciation lives were sharply lengthened, capital gains tax rates were raised, construction period interest and tax expenses were treated less generously, and passive loss rules were enacted to restrict the ability of investors to deduct real estate losses from regular income. These changes have been estimated to raise real rent levels by 10 to 20 percent (Hendershott, Follain and Ling, 1987). We predict the impact of such an increase on the headship rates of American youth.

In the methodology section, we describe the typical demographic model of household formation and our modification of it. Next, some estimation issues are addressed. We then provide the estimation results for our parental separation, alone/group and marriage equations and compare them to those of the traditional model. Last, we use our results to compute the effect of the 1986 Tax Reform Act on the headship rates of youth.

I. METHODOLOGY

Model

Our equation explaining residence outside of the parental home includes as explanatory variables a vector of demographic descriptors such as age, race, gender, and number of children. Marital status is treated, alternatively, as exogenous or endogenous. As in Goldschneider and DaVanzo (1985), we include prior events that have influenced the current choice of

household structure, such as college attendance or participation in the
military. Also, we consider three self esteem variables measuring personal
attributes that may influence the decision of whether to live with parents
or separately. Another explanatory variable indicates whether the
respondent used drugs prior to age 17; those with early deviant behavior
may separate from parents at an earlier stage. The equation explaining
group or separate living includes the above socio-demographic variables and
the amount of time since the respondent first left the parental household.

Current income is the one economic variable that has occasionally
appeared in the household formation literature (Goldscheider and DeVanzo,
1985). However, current income is the product of wage rates and the
quantity of labor supplied, and the latter is a decision made jointly with
household formation. In a statistical sense, income is endogenous, and its
use in estimation will lead to biased coefficients. Similarly, current
wages do not accurately represent earning capacity because either the
respondent (and spouse if applicable) may not work (which is more likely if
he or she resides with a parent or in a group) or the current job may be
transitory or part time. The correct concept for the household formation
decision is the wage that could be earned should the respondent take on the
responsibility of independent living.

Most studies of household formation have found marriage to be an
important explanatory variable (e.g., Goldscheider and DeVanzo), but getting
married and forming a residence are likely simultaneous decisions. In some
societies or subpopulations, couples do not marry until they have the
economic means to form an independent household (Wahl, 1986). In this case,
becoming married is a strong predictor of household formation, but in the
true model the ability to form a household determines marital status. This
causality is clearly limited in applicability to the contemporary U.S. For

example, Modell (1978) presents evidence that many American men married into extended families in 1950, causing the correlation between marriage and household formation to be low. Beginning marriage with parents became less customary in the 1960s and 1970s, and thus the correlation between marriage and household formation substantially increased through 1970, although it appears to have declined since then. The causality in the other direction (marriage leads to new households) results from couples' increased economic capability to maintain an independent household and possibly from couples demanding more privacy than singles. We present results that consider marital status alternatively as exogenous (a 0-1 indicator variable) and endogenous (an instrument that has a value between 0 and 1, predicted in a reduced form probit estimation).

Estimation

In the data set, we observe only the outcomes of the choice of living arrangement. Because the underlying tendencies (I*) that determine these choices are not observed, we adopt the standard statistical model that assumes for the i-th respondent:

Tendency to reside out $= I_{1i}^{*} = b'X_i + e_{1i}$ (1)

of parents's household

Tendency to live separately $= I_{2i}^{*} = b'Z_i + e_{2i}.$ (2)

We observe I_1 and I_2 as dichotomous variables:

$$I_1 = 1 \text{ if } I_1^* > 0,$$

$$= 0 \text{ otherwise;}$$

$$I_2 = 1 \text{ if } I_2^* > 0 \text{ and } I_1^* > 0,$$

$$= 0 \text{ if } I_2^* \leq 0 \text{ and } I_1^* > 0,$$

$$= \text{unobserved otherwise.}$$

The outcome of the choice of whether to live with parents is always observed, but the choice of whether to live with a group is only observed if the respondent has left the parents' household.[3]

We assume that the error terms in equations (1) and (2) are distributed bivariate normally; thus, they may be correlated. The procedure to estimate this truncated bivariate model is detailed in Meng and Schmidt (1985).

II. ESTIMATION RESULTS

The basic data are drawn from the National Longitudinal Survey of Youth, 1987 panel. To this sample we append Coldwell-Banker rental cost data for a standardized housing unit.[4] Although the scope of the rental data is nationwide, it primarily reports costs in mid-sized cities. Major central cities such as New York, Los Angeles, and Chicago are excluded as are all rural counties. Our final sample size is 2355 from 48 states; respondents are between ages 22 and 29. Means of the variables are listed with the variable definitions that appear in the appendix.

In what follows, we report estimates of three decisions: whether to leave the parental home, whether to get married, and, for those who have left the parental home, whether to live alone (with spouse if married) or to

form groups. In each case, we first estimate the standard demographic model
and then extend the list of explanatory variables to include income.
Finally, we estimate a full model that treats marital status as endogenous,
substitutes potential wage rate for income, and includes rental costs and
wealth.

In or Out of the Parental Home

A youth's decision of whether to reside with his or her parents depends
on numerous demographic factors.   In part, normal maturation will lead to
separation from parents. However, normality is apparently different for
females and males and for youth raised in different religions. Moreover,
the more children one has, the more likely one is to be out of the parental
home. But the economic feasibility of living outside the parents' home is
also important. The greater are one's wealth and the income one would earn
if working full time and the lower is the cost of independent living (rent),
the more likely is one to be living outside the parental home.

Table 1 reports the impact of selected variables on the probability of
living outside the parental home for the pure demographic, modified
demographic, and extended economic models. Impacts are listed only for
selected variables whose estimated coefficients are significantly different
from zero in at least one of the models. Initially, all variables are set
to their sample means except religion, which is assigned to be Catholic.
Variables are then varied one at a time so that we can see how the
probabilities differ at ages 22 and 29, for males and females, at real rent
levels half and twice the mean, etc. The estimated probability of being out
of the parental home, when all variables are assigned their sample means, is
0.80.

Based on the economic model, age and gender are important (coefficient estimates are listed in appendix table A1). The probability of being out of the parental home rises by 10 percentage points as age increases from 22 to 29, and the probability is 16 percentage points lower for males. Being out of the parental home is also strongly related to whether one has children: the probability is 17 percentage greater for those with two children than those with none. Prior military experience raises the probability of living separately from parents by 7 points, and prior college attendance lowers it by 5.

Economic variables also matter. In areas where real rent is double the sample average, the probability of being out of the parental home is 18 percentage points less than in areas where real rent is half the sample average. Increases in real potential wage from half to twice the sample average raise the probability by the same amount as would the same proportional decline in rent, which indicates that people are responding to rent/wage ratios. Real wealth is also statistically significant, and again the impact is large.

Comparing the results from the economic model to those from the pure and modified demographic models, we find a number of substantial differences. The independent effect of age on the tendency to separate from parents is 8 percentage points greater in the pure model and 4 points greater in the modified model, suggesting that the age variable in these models "picks up" some of the effect of economic variables (wealth and wages) that are correlated with age. Gender differences are far smaller in the demographic model; we suspect that this variable, too, proxies for the omitted potential wage variable (males have significantly higher predicted wages than females). In contrast the tendency to separate from parents if the respondent has children is less in the demographic than in the economic

model. While the effects of race and military experience are similar across models, the economic model indicates that prior college experience (holding potential wage constant) raises the probability of returning to the parents' household, while the demographic models predict the opposite. We note that the effects of income and wages are similar in the two models, but clearly wealth and rental costs are important determinants of household formation.

Marriage

The next decision of importance to household formations among youth is marriage. In a probit analysis, we relate the tendency to marry to a vector of demographic variables, to the rental cost, and to the potential wage of the respondent (results are listed in appendix table A2). Significant and positive coefficients are found for age, the number of children desired (recorded five years before the 1987 survey), and a dummy variable indicating early sexual experiences for males. Significant and negative are the rental cost index, the dummy variable for males (they marry at later ages), and the dummy variable for race (blacks marry at a later age). No effect was found for the potential wage variable.

As indicated in Table 2, the probability of marriage rises 24 percentage points as age increases from 22 to 29. Females marry earlier than males, the difference in probabilities being six percentage points at age 25. A substantial difference is found between black and white respondents; if other variables are set equal to their sample means, the probability of whites being married is 23 percentage points greater. Although increases by the variable measuring the desired number of children (measured in 1982) is statistically significant, its quantitative impact is small. Finally, the rent variable is quite important; marriage is 18 percentage points less likely in high cost localities than in low cost

areas. In contrast to the other two decisions analyzed, adding economic to demographic variables does not change the estimated response to the demographic variables.

Living Alone or in Groups

The last decision required for calculation of household formations is whether individuals and couples living outside the parental home live alone or in groups. Table 3 lists the variables that were found to be statistically relevant to this decision and indicates their effects on the probability of living alone (the probit estimates are in appendix table 3A). The estimated probability of living alone is 0.82 if all variables assume their mean values.

Again, the extended economic model suggests that both demographic and economic variables affect the decision. Individuals or families with head aged 28 are 10 percentage points less likely to live alone than individuals age 22, ceteris paribus. Females are 6 percentage points more likely to live alone, and blacks are 11 percentage points more likely. Also, those with two children are 14 percentage points more likely to be living alone than are those with no children, and those with college experience are 5 percent less likely than those without.

Families with wealth twice the sample mean are 17 percentage points more likely (nearly certain) to live alone compared to those with half the mean wealth. Real rent does not enter the equation significantly, nor does the predicted wage. Thus, while we can identify some of the factors that explain the tendency to live with a group of unrelated adults, we do not have any evidence that doubling up occurs among young adults in high rent areas.

The addition of the economic variables to the model results in modest changes compared to our analysis of the decision of whether to reside with parents. The effect of age is now reversed; in the demographic model, the age variable proxies for wealth. The coefficient of the variable indicating prior college attendance also reverses signs. Again, it appears that youth who attended college achieve economic success, which results in an increased tendency to live alone; however, once the economic variables are controlled, the direct effect of past college attendance is to increase the tendency to live with a group.

Economic Variables and Headship

Calculating the impact of changes in variables on the total number of households requires combining three relationships (leave parents, marriage, and grouping). We begin with 100 youth and then compute the number outside the parental home, the number of singles and couples (half the respondents that are part of a couple), the number of these families that form sole households (live alone), and the number of additional households formed by families doubling (or tripling in this case) up. We then divide the total number of households formed by the original 100 youth to obtain the headship rate. Column 1 of Table 4 indicates this calculation for youth with the mean characteristics of our respondents (age 25, etc.). Of every 100 youth, roughly 81 live outside the parental home, 37 as singles and the other 44 as 22 married couples. Of these 59 (37 plus 22) potential households, 53 live separately and the other 6 group into 2 households, giving a headship rate of 0.55 (55/100).

The remainder of Table 4 indicates the impact of varying our three economic variables from one half to twice their mean values. All three variables significantly affect the in/out of parental home decision: higher

real wealth and wages, respectively, cause 26 and 13 more youth to be outside the home, while higher real rents cause 18 fewer to be outside. For wealth and wages, the additional independent youth do not marry, but the decline in youth outside the parental home in high real rent areas falls almost entirely on marrieds. Only the wealth variable affects the alone/group decision. At low wealth levels, 83 percent of potential young households live alone; at high wealth levels 98 percent do. Using our assumption that group households consist of three potential households, the impacts on the headship rate of shifting real wealth, wage and rent from half to twice their means are, respectively, 0.30, 0.14, and -0.06.

III. THE TAX REFORM ACT OF 1986[5]

Our interest in the Tax Reform Act (TRA) derives from its predicted effects on long run rental costs. Hendershott, Follain and Ling (1987, Table 3) estimate a 10% increase if interest rates decline as a result of the Act and 20% if rates don't decline (estimates of 25 and 33% increases are obtained under less realistic assumptions). As rental costs rise, fewer youth will live outside the parental home, marry, and form households. Because of the large number of youth in their twenties in 1986 (38.9 million), even a small percentage change in headship implies a fairly large change in the number of households. Our approach is to recalculate headship rates following the method of Table 4, but now using 20 percent higher costs. Although the calculations are based on a non-linear estimator, the results are approximately linear if rent increases by 10 to 25 percent. That is, the impact if rents rise by only 10 percent would be roughly half as large.

To estimate the decline in the number of households resulting from TRA, we distribute the U.S. population aged 21 to 29 across metropolitan areas

(MSAs), assign a rent to each group, and apply our estimated responses to each MSA. The final step aggregates across MSAs and ages to find the cohort response. Details of the procedure are described below.

Youth aged 21 to 29 are the product of the post-war baby boom, and the near 39 million youth are not distributed equally over ages. The distribution from the 1986 census is listed in column 1 of Table 5. Because the change in the number of households differs substantially depending on the initial (pre-IRA) rental, we then allocate each age across the spatial distribution of rental costs. As an intermediate step, we regress rental costs on MSA size and size squared and find that the mean rental cost (0.98) occurs in a MSA of size 625,000. Using 1986 census data, we find that 40 percent of youth were in MSAs larger than 625,000. This group is assigned rental costs in the range of 0.98 to 1.98, values that correspond to the upper half of the distribution of rents. The other 60 percent of youth are assigned rental costs in the range of 0.48 to 0.98, the lower half of the cost distribution. The resultant number of youth living outside the parental home, with a spouse, and as household heads are reported in columns 2 through 4. For 21-29 year olds combined, 80.6 percent live outside the home, 48.7 percent are married and 55.1 percent are household heads.

Next, costs are raised by 20 percent and responses are derived. Aggregating over MSA size, the data for living outside the parental home, marriage, and headship are listed in columns 4 and 6. Aggregating across age, we find a 10 percent increase in the percentage of youth living with their parents, and a 5 percent reduction in the number of married couples. Finally, our predicted reduction in headship is 2.2 percent or 466,000 households.

IV. CONCLUSION

Although the economic literature has analyzed some components of the headship decision, especially marriage (Becker, 1973) and responses to welfare programs (Danziger, 1982), study of household formation has been primarily in the realm of demography. We begin with a pure demographic model and expand it to include additional determinants of the decision to remain with parents or not, to marry or not, and to live with a group or separately. Our results indicate that (1) rental costs, wealth, and the potential wage that a youth could earn are important variables in explaining the outcomes of these choices and (2) including the economic variables significantly changes the estimated impacts of the demographic variables. To illustrate the latter, the estimated impact of age (28 versus 22) on being out of the parental home is halved when age and wealth are added to the equation (higher age proxies for greater wage and wealth).

The economic impacts are large. The probabilities of being outside the parental home and of being married are 18 percent lower in high rent (twice mean) than low rent (half mean) areas. These have offsetting effects on the headship rate; more living at home reduces headship, but more singles increases it. The net results is a 6 percent lower headship rate. The probabilities of being outside the parental home and of living alone, respectively, are 28 and 17 percent greater for wealthy youth (twice mean) than for poor youth (half mean). The headship rate for wealthy youth is a full 30 percent higher than that of poor youth. Finally, the probability of being outside the home is 17 percent higher for youth with high potential wage than for those with low potential wage.

One insight that the expanded economic model allows is the prediction that some public policies will affect headship rates of youth. This prediction is of interest because choices of living arrangements often have implications for demands upon public services and housing. We use as an example the 1986 Tax Reform Act and focus on a single outcome: the

expectation of higher rental costs. If rentals rise by 20 percent as predicted by some tax analysts, we estimate a half million reduction in the number of 1986 households formed by youth aged 21 to 29. Knowledge of this response is a necessary input into tax revenue calculations.

Footnotes

[1] An exception is Borsch-Supan (1986).

[2] Macroeconomic studies of data from a number of countries have featured such variables (Hendershott and Smith, 1989; Markandya, 1983; and Smith, 1984).

[3] We omit partners (couples of opposite sex that self identify a special relationship) from the sample because of the difficulties in classifying them as living in a group or separately and in obtaining estimates of their wealth and and combined potential wage.

[4] The rental data set was validated by comparing it to a hedonic price index generated by Moulton (1989). For the 18 cities contained in both surveys, we find a correlation coefficient of 0.77.

[5] The Tax Reform Act contains other provisions that may affect household formation; only the response to higher rental costs is estimated here.

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VARIABLE DEFINITIONS

All nominal values are deflated by a state specify non-housing price index.
This measure was derived from an unpublished study by McMahon (1989). Mean
values of variables are reported in parentheses.

AGE   As of survey date, 1987: range 22-29 (25.53).

BLACK   Respondent is black (0.26).

H-SEVERE   Health severely limits the ability to work (0.01).

ESTEEM-B   Response to the question "I feel that I have a number of good
qualities", range is 1 = strongly agree to 4 = strongly
disagree (1.43).

ESTEEM-D   Response to the question "I am able to do things as well as
most other people," same range as above (1.52).

ESTEEM-F   Response to the question "I take a positive attitude toward
myself", same range as above (1.59).

COLLEGE   Attended college prior to 1987 (0.45).

MILITARY   Served in military prior to 1987 (0.06).

CHILDREN   The number of children of the respondent or the spouse that
live in the household (0.73).

DESIRED   Number of children desired, 1982 survey (2.46).
CHILDREN

DRUGUSE   A variable that indicates if the respondent used marijuana
prior to age 17 (0.43).

INTERCOURSE   A variable that indicates if the respondent experienced
sexual intercourse prior to age 17 (0.39).

MARRIED   A variable indicating that the respondent is married (0.44).

CATHOLIC   A series of four variables indicating the religion the
JEWISH   respondent was raised in. The omitted category includes the
BAPTIST   largest protestant group (Methodists, etc.). The category
OTHER   OTHER includes those who identified with no religion and other
smaller categories (0.37, 0.01, 0.24, and 0.15).

RESIDE OUT   A variable that indicates the respondent does not reside with
OF PARENTS'   his or her parents or any other older relative such as Aunt,
HOME   Uncle, Grandparent, etc (0.80).

LIVE   One family household (0.82).
SEPARATELY*

WAGE*   The ratio of annual earnings to annual hours worked in 1986
(6.16 for respondent; 10.18 for respondent and spouse).

RENT INDEX   An index of rental cost in the county of residence. Derived
                from Coldwell Banker data and constructed as the ratio of local
                monthly rentals to the sample's average rental for a standard
                house (0.98).

INCOME*   Family income in tens of thousands of dollars in calendar year
                1986 (0.25).

WEALTH*   The amount in tens of thousands of dollars of the respondent's
                net wealth including equity in owned housing (0.19).

YEARS OUT   The number of years since the respondent first left home
OF PARENTS'   (6.42).
HOME*

*Values are for respondents outside of the parents' home.

Table 1
Impact of Selected Variables on the Probability
of Living Outside the Parental Home - Three Models

Variable	Values		Change in Probability of Separating from Parents		
			Pure Demographic	Extended Demographic	Economic
Age	22	28	18	14	10
Gender	Female	Male	-5	-7	-16
Race	Black	White	-6	-5	-5
Children	0	2	10	13	17
Military Experience	none	yes	7	7	7
College Experience	none	yes	5	3	-5
Income	half mean	twice mean	--	18	--
Wealth	half mean	twice mean	--	--	28
Wage	half mean	twice mean	--	--	17
Rent	half mean	twice mean	--	--	-18

Table 2
Impact of Selected Variables on the Probability of Marriage - Two Models

Variable	Values		Change in Probability of Being Married	
			Pure Demographic	Economic
Age	22	28	24	24
Gender	Female	Male	-2	-6
Race	Black	White	24	23
Desired Children	0	2	4	4
Rent	half mean	twice mean	--	-18

Table 3
Impact of Selected Variables on the Probability of Living Alone - Two Models

Variable	Values		Change in Probability of Living Alone	
			Pure Demographic	Economic
Age	22	28	7	-10
Gender	Female	Male	-5	-6
Race	Black	White	-8	-11
Children	0	2	11	14
College	none	some	2	-5
Married	0	1	10	9
Wealth	half mean	twice mean	--	17

When income is entered in the demographic model, its coefficient is not significant.
Rent and predicted wages are not significant in the economic model.

Table 4
Economic Variables and Headship Rates of 25 Year Olds

	Mean Values	Rent Half Mean	Rent Twice Mean	Wealth Half Mean	Wealth Twice Mean	Wage Half Mean	Wage Twice Mean
#Start	100.0	100.0	100.0	100.0	100.0	100.0	100.0
#Out of parents	81.4	86.3	68.3	69.5	95.1	76.1	89.6
#Singles	37.3	36.0	36.6	25.5	51.0	32.6	45.2
#Married couples*	22.0	25.2	15.8	22.0	22.0	21.8	22.2
#Alone	53.5	54.1	48.9	39.2	71.4	48.1	62.4
#Group**	2.0	2.3	1.2	2.8	0.6	2.1	1.7
Headship rate	.554	.565	.501	.420	.719	.502	.641

*The number of married couples equals half of the number of respondents who are married.

**The number of group households is assumed to equal one-third of all potential households living in groups.

Table 5

The Impact of the Tax Reform Act of 1986 on the Headship Rate of Youth

Age	Youth	Pre Tax Reform			Post Tax Reform		
		Outside Home	Married	Households	Outside Home	Married	Households
21	4014	2944	544	2322	2828	540	2248
22	4153	3126	614	2393	3009	571	2324
23	4222	3265	687	2422	3150	642	2358
24	4346	3437	764	2463	3323	716	2405
25	4468	3604	843	2491	3493	793	2438
26	4374	3605	924	2397	3500	873	2352
27	4435	3701	1005	2375	3620	953	2335
28	4277	3657	1087	2237	3565	1034	2204
29	4582	3977	1167	2327	3883	1115	2297
Total	38871	31316	7635	21427	30371	7237	20961

All data are in thousands.

Appendix Table A1
Probit Estimation of Leaving Parental Home

Dependent = Reside outside of parents' home

	Pure Demographic	Extended Demographic	Economic
Constant	-1.67 (2.8)	-1.58 (2.6)	0.14 (0.2)
Age	0.10 (4.6)	0.08 (3.6)	0.05 (1.5)
Male	-0.43 (0.6)	-0.25 (0.3)	-1.38 (1.6)
Black	-0.21 (2.2)	-0.16 (1.7)	-0.19 (1.0)
Children	0.19 (4.9)	0.23 (5.7)	0.38 (11.2)
College	0.18 (2.4)	0.12 (1.7)	-0.20 (2.5)
Military	0.27 (1.9)	0.30 (2.1)	0.33 (2.3)
Druguse	0.14 (2.0)	0.11 (1.6)	0.14 (2.0)
Age*Male	0.01 (0.3)	0.00 (0.0)	0.03 (1.0)
Health-Limit	-0.33 (1.0)	-0.23 (0.8)	-0.18 (0.6)
Catholic	-0.45 (5.0)	-0.48 (5.1)	-0.44 (4.9)
Jewish	-0.86 (2.7)	-0.93 (2.8)	-1.57 (4.5)
Baptist	-0.02 (0.2)	0.00 (0.0)	0.03 (0.3)
Other-Prot	-0.16 (1.3)	-0.20 (1.7)	-0.27 (2.3)
Esteem-B	-0.06 (0.8)	-0.04 (0.5)	0.14 (1.4)
Esteem-D	-0.08 (1.0)	-0.06 (0.7)	-0.14 (1.6)
Esteem-F	-0.05 (0.7)	-0.03 (0.4)	-0.06 (0.8)
Married	1.26 (13.0)	0.89 (7.5)	--
Pred-Married	--	--	-1.42 (1.8)
Income	--	2.22 (6.3)	--
Pred-Wealth	--	--	4.48 (6.2)
Pred-Wage	--	--	0.04 (2.8)
Rent	--	--	-0.42 (3.1)
System Log Likelihood	-1572	-1553	-1607
Sample Size	2355	2355	2355

Appendix Table A2
Probit Estimation of Being Married

Dependent = Married

	Pure Demographic		Economic	
Constant	-1.88	(4.2)	-1.59	(3.5)
Age	0.08	(4.7)	0.08	(4.5)
Male	-1.67	(2.7)	-1.63	(2.6)
Age*Male	0.06	(2.3)	0.05	(1.8)
Black	-0.71	(10.9)	-0.68	(10.3)
Health-Limit	0.02	(0.1)	0.02	(0.1)
Intercourse <17	-0.08	(1.0)	-0.10	(1.2)
Male*Intercourse <17	0.33	(2.9)	0.39	(3.3)
Desired Children	0.04	(1.9)	0.04	(2.1)
Esteem-B	0.18	(2.8)	0.20	(3.0)
Esteem-D	-0.15	(2.3)	-0.16	(2.5)
Esteem-F	-0.08	(1.4)	-0.07	(1.3)
Pred-Wage	—		0.00	(0.2)
Male*Pred-Wage	—		0.02	(1.0)
Rent Index	—		-0.33	(3.7)
Log Likelihood	-1550		-1498	
Sample Size	2355		2355	

Appendix Table A3
Probit Estimate of Living Separately

Dependent = Live Separately

	Pure Demographic	Extended Demographic	Economic
Constant	-1.21 (1.5)	-1.16 (1.6)	1.71 (2.4)
Age	0.05 (2.0)	0.05 (2.0)	-0.09 (2.3)
Male	-0.26 (2.7)	-0.26 (2.8)	-0.32 (3.4)
Black	0.39 (4.2)	0.40 (4.2)	0.84 (4.0)
Children	0.27 (4.8)	0.28 (4.9)	0.42 (8.4)
College	0.09 (1.0)	0.07 (0.8)	-0.28 (3.2)
Military	-0.03 (0.2)	-0.03 (0.2)	-0.08 (0.6)
Druguse	-0.02 (0.2)	-0.02 (0.2)	-0.06 (0.7)
Years Since Left Parent	0.03 (1.9)	0.03 (1.9)	0.02 (1.0)
Married	1.38 (7.1)	1.30 (7.9)	--
Pred-Married	--	--	0.79 (1.0)
Esteem-B	0.07 (0.7)	0.08 (0.8)	0.14 (1.3)
Esteem-D	0.07 (0.8)	0.08 (0.8)	0.12 (1.3)
Esteem-F	-0.23 (3.0)	-0.22 (3.0)	-0.16 (2.2)
Income	--	0.42 (1.1)	--
Pred-Wealth	--	--	4.16 (4.8)
Pred-Wage	--	--	0.02 (1.3)
Rent Index	--	--	0.19 (1.3)
System Log Likelihood	-1572	-1553	-1607
Sample Size	2355	2355	2355