

FAMILY STATUS AND HOMEOWNERSHIP

Roger A. Wojtkiewicz

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Center for Demography and Ecology
4412 Social Science Building
1180 Observatory Drive
University of Wisconsin
Madison, WI 53706

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Glick (1947:164) described the family life cycle in the following way:

From its formation until its dissolution a family passes through a series of stages that are subject to demographic analysis. Typically, a family comes into being when a couple is married. The family gains in size with the birth of each child. From the time when the last child is born until the first child leaves home, the family remains stable in size. As the children leave home for employment or marriage, the size of the family shrinks gradually back to the original two persons. Eventually one and then the other of the parents die and the family cycle has come to an end.

In that seminal article, Glick (1947) examined three aspects of the family life cycle: (1) age at which males and females reach the several stages of the family life cycle, (2) changes in family composition over the course of the family life cycle, and (3) changes in residence and family characteristics over the course of the family life cycle. In this paper, I report on research which addresses the third aspect of the family life cycle examined in Glick's article.

FAMILY LIFE CYCLE STAGE AND HOMEOWNERSHIP

Kain and Quigley (1975) view the determinants of homeownership as stemming from two sources: housing as an investment and housing as consumption. It is the housing as consumption aspect which brings the family life cycle concept into play. Family life cycle stage determines, in part, housing needs which in turn determine, in part, the choice between owned and rented housing. Owner-occupied housing units tend to be larger, of better quality, and located in better residential environments than rental housing units - characteristics perhaps valued more by family households than by single person

households. In addition, the stability of tenure insured by owner-occupancy is highly valued by most family households.

Using 1940 Census data, Glick (1947) examined the relationship between family life cycle stage and homeownership and found that the greater the age of the husband, the greater the proportion of families which owned their homes. Using multiple regression analysis, Kain and Quigley (1975) found for a sample of households from the St. Louis metropolitan area that the probability of homeownership, holding constant race, education, income, and employment, was less for single males, single females, and childless, married couples than for married couples with children. The authors also found that for married couples with children the older the age of the household head, the greater the probability of homeownership. More recently, Bianchi et. al. (1982) using 1977 Annual Housing Survey data found, holding constant background factors, that married couples without children, single males alone or with others, single females alone, with children, or with others, had lower probabilities of homeownership than married couples with children.

Both Kain and Quigley (1975) and Bianchi et. al. (1982) used family life cycle typologies in their analyses. These typologies were the following:

Kain and Quigley (1975)

- individuals or married couples with children
- single females less than 45 years
- single females greater than 45 years
- single males less than 45 years
- single males greater than 45 years
- childless, married couples with head less than 45 years
- childless, married couples with head greater than 45 years

Bianchi et. al. (1982)

- | | |
|-----------------------------|---------------------|
| -husband/wife with children | -female with child |
| -husband/wife, no children | -female with others |
| -male with others | -female alone |
| -male alone | |

However, the utility of family life cycle typologies for explaining differences in family characteristics has been questioned by Spanier et. al. (1979) and Nock (1979). In each case, the question addressed was whether or not a family life cycle typology had more explanatory power than a unidimensional variable such as husband's age, duration of marriage, or presence of children.

Both authors found that a family life cycle typology was no more useful than a unidimensional variable. These findings are contrary to a finding by Lansing and Kish (1957) that a family life cycle typology was more useful than a unidimensional variable, husband's age, in explaining variation in family characteristics.

Spanier et.al. (1979) concluded that the choice between a family life cycle typology and a unidimensional variable should depend on the research question at hand, while Nock (1979) concluded that for most purposes one or more unidimensional variables would be preferable. In

this research, I will use an approach for analyzing family life cycle effects on homeownership which involves neither including only unidimensional variables nor including only a family life cycle typology, but starting with the unidimensional variables which underlie the family life cycle typology and then looking for significant interactions between these variables. This approach stems from an observation concerning the differences found in empirical research between the effects of unidimensional variables and the effects of family life cycle typologies.

A family life cycle typology is comprised of a subset of categories which arise when unidimensional, family life cycle-related variables are cross-classified. For example, the following is a four-category family life cycle typology:

- younger head without children
- younger head with children
- older head with children
- older head without children

This typology consists of all categories which result when a two-category age of head variable is cross-classified by a two-category presence of children variable.

Suppose this typology were to be used in a regression analysis. Dummy variables for each of the latter three categories would be included in the analysis as independent variables. The three parameters which would result from the regression would be estimates of the effects of the latter three categories over and above the effect of the excluded

category.

On the other hand, suppose only two dummy variables were included in the regression, one for age and one for presence of children. The two parameters which would result from the regression in this case would be estimates of (1) the effect of one age category over and above the effect of the other age category and (2) the effect of one presence of children category over and above the effect of the other presence of children category.

If there was a significant difference in the amount of variance in the dependent variable explained by these two regression equations, it would be due to the fact that the family life cycle typology captures more than the additive effects of age and presence of children. It captures the interaction effects as well.

The fact that a family life cycle typology captures interaction as well as additive effects means that if the addition of dummy variables representing a family life cycle typology to a regression results in a significant reduction in unexplained variance in the dependent variable, one would not know if the result was due to additive effects alone or to additive effects in combination with interaction effects. Thus, an approach which starts with unidimensional variables and then looks for significant interaction effects is preferable to one which includes only a family life cycle typology because the additive and interaction effects can be sorted out. In addition, this approach is preferable to an approach which examines only additive effects because

possible interaction effects are not ignored.

ANALYSIS

In this research, I will use the analytical approach described above to examine the effects of family life cycle stage on homeownership. Data is from the 1976 Annual Housing Survey. The sample consists of black and white household heads aged 25-59.

In addition to estimating the effects of family life cycle status on home ownership, one of the objectives of the analysis is determine the utility of an approach for analyzing family life cycle effects which starts with the unidimensional variables which underlie a family life cycle typology and then looks for significant interaction effects. In the analysis, I consider both the Kain and Quigley (1975) typology and the Bianchi et. al (1982) typology.

Table 1 shows the percentage distributions for the variables used in the analysis. Age, marital status/sex, and presence of children are the unidimensional variables which underlie the Kain and Quigley (1975) typology while marital status/sex, presence of children, and presence of others are the unidimensional variables which underlie the Bianchi et. al. (1982) typology. Region and metropolitan status are included to hold constant differences in housing markets while income and education are included to hold constant differences in socioeconomic status. Race is included because previous research has shown that it has a significant negative effect on homeownership

probability (Kain and Quigley, 1975; Bianchi et. al. 1982).

Table 2 shows the coefficients from an ordinary least squares regression of housing tenure status on the predictor variables. Both for movers and for all household heads, metropolitan status, age, marital status/sex, and income have the largest effects on homeownership probability.

Table 3 shows the coefficients from a logistic regression of housing tenure status on the predictor variables. Homeownership is a dichotomous variable and while ordinary least squares produces unbiased estimates of the regression coefficients, the estimates of the standard errors of the regression coefficients are biased. With biased estimates of the standard errors, statistical testing of the significance of the coefficients would be inappropriate. In order to address this problem, I used a maximum likelihood method for logistic regression to estimate the effects of the predictor variables and to do significance tests of coefficients (Baker and Nelder, 1978). Logistic regression produces unbiased estimates of the standard errors of the coefficients (Hanushek and Jackson, 1977). For the logistic regression in Table 3, the dependent variable is the log-odds of homeownership. As in the OLS regression, both for movers and for all household heads, metropolitan status, age, marital status/sex, and income have the largest effects on homeownership.

Tables 4 and 5 show the results from a series of logistic regressions for movers and all household heads, respectively. The purpose of running the regressions was to test whether or not the addition of one of the predictor variables to the equation when the other predictor variables were included results in a significantly large reduction in the G-squared (-2 times the logarithm of the likelihood test statistic; Fienberg, 1977). Since each of the predictor variables consists of N categories, this analysis amounts to a test of whether or not the addition of N-1 dummy variables results in a significantly large reduction in G-squared (with N dependent on the particular predictor variable).

Grouped data is used in the analysis. For the population of all household heads, there were 39,627 cases before grouping and 16,139 cases after grouping. For the population of household heads who moved during the previous twelve months, there were 7,407 cases before grouping and 5,114 cases after grouping.

For movers, the additional dummies for each predictor variable except presence of others and race resulted in a significantly large reduction in G-squared (Table 4). For all household heads, the addition of the dummies for each of the predictor variables resulted in a significantly large reduction in G-squared (Table 5).

Table 6 shows the results for movers from a series of regressions in which coefficients for the interactions between marital status/sex, presence of children, and age were included in the equations. These are the unidimensional variables which underlie the Kain and Quigley (1975) typology.

The first panel shows the G-squared statistics for eight equations. Each of the first three equations includes one two-way interaction. There are two two-way interactions in each of the second group of three equations. The seventh equation includes all three two-way interactions and the eighth equation includes the three-way interaction. These are hierarchical models so that, for example, the three-way interaction model includes all additive and two-way interaction effects.

The second panel in Table 6 shows the G-squared statistics for differences between models. The (8) v (7) contrast tests the significance of the three-way interaction. The addition of this interaction does not significantly decrease the G-squared. For the addition of the Kain and Quigley (1975) family life cycle typology to the regression to be fully appropriate, the three-way interaction should be significant. Since it is not, a simpler set of coefficients representing family life cycle stage would be more appropriate.

The (7) v (4), (7) v (5), and (7) v (6) contrasts test the significance of the effect of each two-way interaction over and above the effects of the other two-way interactions. The CHD*AGE interaction is the only one which is significant. As a final check on the lack of significance for the MSX*AGE and MSX*CHD interactions, I tested to see if the addition of one of these interactions to an equation which included the base and the CHD*AGE interaction resulted in a significant reduction in G-squared. These contrasts are the (6) v (3) and (5) v (3). Neither the addition of the MSX*AGE interaction nor the MSX*CHD interaction resulted in a significant reduction in G-squared.

The effects for movers of presence of children and age of household head on the log-odds of homeownership are shown in Figure 1. The log-odds of homeownership increases with the age of the household head. Younger household heads with no children have a lower log-odds of homeownership than younger household heads with children while there is little difference between older household heads with no children and older household heads with children.

Table 7 shows for all household heads the results from eight regressions which involve interactions between marital status/sex, presence of children, and age of household head. The three-way interaction is not significant. There are two two-way interactions which are significant, CHD*AGE and MSX*AGE (the (7) v (4) and (7) v (5) contrasts). As a second check on the significance of these

interactions, I tested to see if the addition of one of these interactions to an equation which included only the other interaction resulted in a significant reduction in G-squared (the (6) v (2) and (6) v (3) contrasts). In both cases the addition of the interaction term still resulted in a significant reduction in G-squared.

The effects of presence of children and age of household head on the log-odds of homeownership for all household heads are shown in Figure 2. The older the household head, the greater is the log-odds of homeownership. Presence of children has a positive effect on the log-odds of homeownership which is greater for younger household heads than older household heads. Figure 3 shows the effects of marital status/sex and age of household head on the log-odds of homeownership for all household heads. For married couples and for single females, the log-odds of homeownership increases with age although the log-odds for single females is less than that for married couples at each age. The gap between married couples and single females is less at the older ages. For single males, the log-odds of homeownership increases from 25-29 to 30-39 and then remains fairly constant from 30-39 to 50-59.

The examination of the unidimensional variables which underlie the Kain and Quigley (1975) family life cycle typology revealed that the best model for predicting the log-odds of homeownership was neither one with only additive effects nor one with a three-way interaction. For those household heads who moved during the previous twelve months,

the appropriate model included additive effects and a two-way interaction between presence of children and age of household head. For all household heads, the best model was one which included additive effects and two two-way interactions, one interaction between presence of children and age of household head and one interaction between marital status/sex and age of household head.

Table 8 shows for household heads who moved during the previous twelve months the results from regressions in which the interactions between marital status/sex, presence of children, and presence of others were included in the equations. These are the unidimensional variables which underlie the Bianchi et. al. (1982) typology.

The three-way interaction is not significant. In the equation which includes all three two-way interactions, only the MSX*OTH interaction is significant (the (7) v (5) contrast). In order to double check on the lack of significance for the CHD*OTH and MSX*CHD interactions, I tested to see if the addition of one of these interactions to an equation which included the base and the MSX*OTH interaction resulted in a significant reduction in G-squared. These contrasts are (6) v (2) and (4) v (2). It turns out that in an equation including two two-way interactions, the CHD*OTH and MSX*OTH interactions are both significant.

Figure 4 shows the effects for movers of presence of others and presence of children on the log-odds of homeownership. For those households in which others were not present, those with children had a greater log-odds of homeownership than those with no children. For those households in which others were present, those with children had about the same log-odds of homeownership as those with no children. Figure 5 shows the effects for movers of presence of others and marital status/sex on the log-odds of homeownership. Married couples have a greater log-odds than single males or single females. Married couples and single males with others have a lower log-odds than those with no others. Single females with others have a greater log-odds single females with no others.

Table 9 shows the results for all households from regressions in which the interactions between marital status/sex, presence of children and presence of others were included in the equations. The three-way interaction is not significant. In the equation which includes all two-way interactions, the CHD*OTH and MSX*OTH interactions are significant (the (7) v (4) and (7) v (5) contrasts). To double check on the significance of these interactions, I tested to see if the addition of one of these interactions to an equation which included only the other interaction resulted in a significant reduction in G-squared (the (6) v (2) and (6) v (3) contrasts). In both cases, the addition of the interaction term still resulted in a significant reduction in G-squared.

The effects for all households of presence of others and presence of children on the log-odds of homeownership are shown in Figure 6. Households with children had a greater log-odds than those with no children. Households with children and no others had a greater log-odds than households with children and others. On the other hand, households with no children and others had a greater log-odds than households with no children and no others. Figure 7 shows the effects for all households of presence of others and marital status/sex on the log-odds of homeownership. Single males and single females had lower log-odds than married couples. Married couples with others and those with no others had about the same log-odds of homeownership. Single males and single females with others had greater log-odds than those with no others.

As for the Kain and Quigley (1975) family life cycle typology, the examination of the unidimensional variables which underlie the Bianchi et. al. (1982) family life cycle typology revealed that the best model for predicting the log-odds of homeownership was neither one with only additive effects nor one with a three-way interaction. Both for movers and for all household heads, the appropriate model included additive effects and two-way interactions between presence of others and presence of children and between presence of others and marital status/sex.

SUMMARY

The regression analysis showed the following effects of family life cycle status on home ownership in both the all household heads sample as well as the recent movers sample (other variables constant):

- 1) the log-odds of homeownership increased with age
- 2) married household heads have higher log-odds than single (unmarried) household heads
- 3) presence of children and presence of others do not have significant additive effects but do have significant interactive effects
- 4) young household heads with children have higher log-odds than young household heads without children while among older household heads presence of children has no effect
- 5) for all household heads only, younger single males and younger single females have about the same log-odds, both lower than married, while older single males have lower log-odds than older single females who in turn have lower log-odds than married individuals
- 6) households with no children present have higher log-odds of homeownership when others are present than when others are not present; households with children present have higher log-odds when others are not present than when others are present
- 7) single females have higher log-odds when others are present than when others are not present; married heads have higher log-odds when others are not present than when others are present; among movers, single males have higher log-odds when others are not present than when others are present while among all household heads this relationship is reversed

Using the Kain and Quigley (1975) and Bianchi et. al. (1982) family life cycle typologies as starting points, this analysis has also shown the utility of an approach for analyzing family life cycle effects which starts with the unidimensional variables which underlie the family life cycle typology and then looks for significant interaction

effects. In both instances, the appropriate model incorporated some interaction effects but was simpler than a three-way interaction model.

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TABLE 1

PERCENTAGE DISTRIBUTIONS FOR PREDICTOR VARIABLES AND HOUSING TENURE STATUS:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25-59 IN 1976.

VARIABLES	MOVERS	ALL
REGION (REG)		
NORTHEAST	17%	21%
NORTH CENTRAL	24%	27%
SOUTH	36%	35%
WEST	23%	17%
METROPOLITAN STATUS (MET)		
CENTRAL CITY	22%	18%
SUBURB	26%	27%
METRO-NO DISTINCTION	18%	17%
NONMETRO	34%	38%
AGE (AGE)		
25-29 YEARS	35%	18%
30-39 YEARS	35%	30%
40-49 YEARS	18%	26%
50-59 YEARS	12%	26%
MARITAL STATUS/SEX (MSX)		
MARRIED	66%	75%
SINGLE MALE	15%	9%
SINGLE FEMALE	19%	16%
PRESENCE OF CHILDREN (CHD)		
YES	45%	41%
NO	55%	59%
PRESENCE OF OTHERS (OTH)		
NO	88%	89%
YES	12%	11%
FAMILY INCOME (INC)		
L.T. \$ 3000	8%	5%
\$ 3000-\$ 4999	7%	5%
\$ 5000-\$ 7999	13%	10%
\$ 8000-\$ 9999	9%	8%
\$10000-\$14999	22%	22%
\$15000-\$19999	17%	19%
\$20000-\$24999	10%	13%
\$25000-\$29999	9%	11%
\$30000+	5%	7%
EDUCATIONAL ATTAINMENT (ED)		
0- 7 YEARS	6%	7%
8 YEARS	5%	6%
9-11 YEARS	14%	15%
12 YEARS	32%	36%
13-15 YEARS	19%	16%
16+ YEARS	24%	20%
RACE (RAC)		
WHITE	90%	90%
BLACK	10%	10%
MOVER STATUS (MOV)		
STAYER	-	81%
MOVER-PREV. HEAD	83%	16%
MOVER-NEW HEAD	17%	3%
TENURE STATUS		
RENTER	60%	31%
OWNER	40%	69%
TOTAL NUMBER	7,407	39,627

SOURCE:
1976 ANNUAL HOUSING SURVEY

TABLE 2

ESTIMATES FROM ORDINARY LEAST SQUARES REGRESSION OF
HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976.

VARIABLES	MOVERS	ALL
CONSTANT	.03	.20
REGION (V NORTHEAST)		
NORTH CENTRAL	.06	.07
SOUTH	.04	.08
WEST	.03	.04
METROPOLITAN STATUS (V CENTRAL CITY)		
SUBURB	.10	.12
METRO-NO DISTINCTION	.11	.14
NONMETRO	.19	.20
AGE (V 25-29)		
30-39 YEARS	.06	.11
40-49 YEARS	.11	.21
50-59 YEARS	.19	.29
MARITAL STATUS/SEX (V MARRIED)		
SINGLE MALE	-.19	-.20
SINGLE FEMALE	-.16	-.16
PRESENCE OF CHILDREN (V YES)		
NO	-.07	-.08
PRESENCE OF OTHERS (V NO)		
YES	.02	.04
FAMILY INCOME (V L.T. \$3000)		
\$ 3000-\$ 4999	-.03	-.05
\$ 5000-\$ 7999	-.03	.01
\$ 8000-\$ 9999	.04	.05
\$10000-\$14999	.14	.12
\$15000-\$19999	.22	.20
\$20000-\$24999	.28	.24
\$25000-\$29999	.35	.28
\$30000+	.41	.29
EDUCATIONAL ATTAINMENT (V 0- 7 YEARS)		
8 YEARS	.07	.08
9-11 YEARS	.07	.10
12 YEARS	.12	.14
13-15 YEARS	.10	.13
16+ YEARS	.11	.11
RACE (V WHITE)		
BLACK	-.02	-.08
MOVER STATUS (V STAYER)		
MOVER-PREV. HEAD	--	-.24
MOVER-NEW HEAD	--	-.26
MOVER STATUS (V MOVER-PREV. HEAD)		
MOVER-NEW HEAD	-.03	--

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 3

ESTIMATES FROM LOGISTIC REGRESSION OF HOUSING TENURE STATUS ON
PREDICTOR VARIABLES: BLACK AND WHITE HOUSEHOLD HEADS
AGED 25 TO 59 IN 1976.

VARIABLES	MOVERS	ALL
CONSTANT	-2.48	-1.63
REGION (V NORTHEAST)		
NORTH CENTRAL	.36	.41
SOUTH	.24	.43
WEST	.18	.22
METROPOLITAN STATUS (V CENTRAL CITY)		
SUBURB	.65	.70
METRO-NO DISTINCTION	.75	.83
NONMETRO	1.06	1.09
AGE (V 25-29)		
30-39 YEARS	.27	.64
40-49 YEARS	.53	1.13
50-59 YEARS	1.02	1.67
MARITAL STATUS/SEX (V MARRIED)		
SINGLE MALE	-1.09	-1.16
SINGLE FEMALE	-.88	-.89
PRESENCE OF CHILDREN (V YES)		
NO	-.45	-.56
PRESENCE OF OTHERS (V NO)		
YES	.11	.24
FAMILY INCOME (V L.T. \$3000)		
\$ 3000-\$ 4999	-.36	-.21
\$ 5000-\$ 7999	-.05	-.01
\$ 8000-\$ 9999	.16	.18
\$10000-\$14999	.78	.57
\$15000-\$19999	1.26	1.11
\$20000-\$24999	1.49	1.35
\$25000-\$29999	1.81	1.61
\$30000+	1.99	1.77
EDUCATIONAL ATTAINMENT (V 0- 7 YEARS)		
8 YEARS	.45	.51
9-11 YEARS	.34	.58
12 YEARS	.63	.85
13-15 YEARS	.55	.74
16+ YEARS	.64	.65
RACE (V WHITE)		
BLACK	-.19	-.50
MOVER STATUS (V STAYER)		
MOVER-PREV. HEAD	--	-1.29
MOVER-NEW HEAD	--	-1.46
MOVER STATUS (V MOVER-PREV. HEAD)		
MOVER-NEW HEAD	-.22	--

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 4

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976
WHO MOVED DURING THE PREVIOUS TWELVE MONTHS.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE:REG+MET+AGE+MSX+CHD+OTH+INC+ED+RAC+MOV	5400	5085
(1) BASE LESS REG	5417	5088
(2) BASE LESS MET	5564	5088
(3) BASE LESS AGE	5517	5088
(4) BASE LESS MSX	5589	5087
(5) BASE LESS CHD	5449	5086
(6) BASE LESS OTH	5401	5086
(7) BASE LESS INC	5891	5093
(8) BASE LESS ED	5429	5090
(9) BASE LESS RAC	5403	5086
(10) BASE LESS MOV	5407	5086

CONTRASTS	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(1) BASE V BASE LESS REG	17*	3
(2) BASE V BASE LESS MET	164*	3
(3) BASE V BASE LESS AGE	117*	3
(4) BASE V BASE LESS MSX	189*	2
(5) BASE V BASE LESS CHD	49*	1
(6) BASE V BASE LESS OTH	1	1
(7) BASE V BASE LESS INC	491*	8
(8) BASE V BASE LESS ED	29*	5
(9) BASE V BASE LESS RAC	3	1
(10) BASE V BASE LESS MOV	7*	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 5

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE:REG+MET+AGE+MSX+CHD+OTH+INC+ED+RAC+MOV	18057	16109
(1) BASE LESS REG	18222	16112
(2) BASE LESS MET	18871	16112
(3) BASE LESS AGE	19664	16112
(4) BASE LESS MSX	18975	16111
(5) BASE LESS CHD	18362	16110
(6) BASE LESS OTH	18090	16110
(7) BASE LESS INC	19562	16117
(8) BASE LESS ED	18315	16114
(9) BASE LESS RAC	18190	16110
(10) BASE LESS MOV	19741	16111

CONTRASTS	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(1) BASE V BASE LESS REG	165*	3
(2) BASE V BASE LESS MET	814*	3
(3) BASE V BASE LESS AGE	1607*	3
(4) BASE V BASE LESS MSX	918*	2
(5) BASE V BASE LESS CHD	305*	1
(6) BASE V BASE LESS OTH	33*	1
(7) BASE V BASE LESS INC	1505*	8
(8) BASE V BASE LESS ED	258*	5
(9) BASE V BASE LESS RAC	133*	1
(10) BASE V BASE LESS MOV	1684*	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 6

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976
WHO MOVED DURING THE PREVIOUS TWELVE MONTHS.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE: REG+MET+AGE+MSX+CHD+AGE+INC+ED+RAC+MOV	5400	5085
(1) BASE PLUS MSX*CHD	5394	5083
(2) BASE PLUS MSX*AGE	5386	5079
(3) BASE PLUS CHD*AGE	5374	5082
(4) BASE PLUS MSX*CHD PLUS MSX*AGE	5380	5077
(5) BASE PLUS MSX*CHD PLUS CHD*AGE	5370	5080
(6) BASE PLUS MSX*AGE PLUS CHD*AGE	5365	5076
(7) BASE PLUS MSX*CHD PLUS MSX*AGE PLUS CHD*AGE	5362	5074
(8) BASE PLUS MSX*CHD*AGE	5355	5068

CONTRASTS	COEFFICIENT TESTED	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(8) V (7)	MSX*CHD*AGE	7	6
(7) V (4)	CHD*AGE	18*	3
(7) V (5)	MSX*AGE	8	6
(7) V (6)	MSX*CHD	3	2
(6) V (2)	CHD*AGE	21*	3
(6) V (3)	MSX*AGE	9	6
(5) V (1)	CHD*AGE	24*	3
(5) V (3)	MSX*CHD	4	2
(4) V (1)	MSX*AGE	14*	6
(4) V (2)	MSX*CHD	6*	2
(3) V BASE	CHD*AGE	26*	3
(2) V BASE	MSX*AGE	14*	6
(1) V BASE	MSX*CHD	6*	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 7

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE:REG+MET+AGE+MSX+CHD+AGE+INC+ED+RAC+MOV	18057	16109
(1) BASE PLUS MSX*CHD	18053	16107
(2) BASE PLUS MSX*AGE	18011	16103
(3) BASE PLUS CHD*AGE	17955	16106
(4) BASE PLUS MSX*CHD PLUS MSX*AGE	18008	16101
(5) BASE PLUS MSX*CHD PLUS CHD*AGE	17951	16104
(6) BASE PLUS MSX*AGE PLUS CHD*AGE	17895	16100
(7) BASE PLUS MSX*CHD PLUS MSX*AGE PLUS CHD*AGE	17890	16098
(8) BASE PLUS MSX*CHD*AGE	17880	16092

CONTRASTS	COEFFICIENT TESTED	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(8) V (7)	MSX*CHD*AGE	10	6
(7) V (4)	CHD*AGE	82*	3
(7) V (5)	MSX*AGE	61*	6
(7) V (6)	MSX*CHD	5	2
(6) V (2)	CHD*AGE	116*	3
(6) V (3)	MSX*AGE	60*	6
(5) V (1)	CHD*AGE	102*	3
(5) V (3)	MSX*CHD	4	2
(4) V (1)	MSX*AGE	45*	6
(4) V (2)	MSX*CHD	3	2
(3) V BASE	CHD*AGE	102*	3
(2) V BASE	MSX*AGE	46*	6
(1) V BASE	MSX*CHD	4*	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 8

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976
WHO MOVED DURING THE PREVIOUS TWELVE MONTHS.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE:REG+MET+AGE+MSX+CHD+OTH+INC+ED+RAC+MOV	5400	5085
(1) BASE PLUS MSX*CHD	5394	5083
(2) BASE PLUS MSX*OTH	5394	5083
(3) BASE PLUS CHD*OTH	5396	5084
(4) BASE PLUS MSX*CHD PLUS MSX*OTH	5389	5081
(5) BASE PLUS MSX*CHD PLUS CHD*OTH	5392	5082
(6) BASE PLUS MSX*OTH PLUS CHD*OTH	5390	5082
(7) BASE PLUS MSX*CHD PLUS MSX*OTH PLUS CHD*OTH	5386	5080
(8) BASE PLUS MSX*CHD*OTH	5386	5078

CONTRASTS	COEFFICIENT TESTED	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(8) V (7)	MSX*CHD*OTH	0	2
(7) V (4)	CHD*OTH	3	1
(7) V (5)	MSX*OTH	6*	2
(7) V (6)	MSX*CHD	4	2
(6) V (2)	CHD*OTH	4*	1
(6) V (3)	MSX*OTH	6*	2
(5) V (1)	CHD*OTH	2	1
(5) V (3)	MSX*CHD	4	2
(4) V (1)	MSX*OTH	5	2
(4) V (2)	MSX*CHD	5	2
(3) V BASE	CHD*OTH	4*	1
(2) V BASE	MSX*OTH	6*	2
(1) V BASE	MSX*CHD	6*	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

TABLE 9

LOGISTIC REGRESSIONS OF HOUSING TENURE STATUS ON PREDICTOR VARIABLES:
BLACK AND WHITE HOUSEHOLD HEADS AGED 25 TO 59 IN 1976.

VARIABLES	G-SQUARED	DEGREES OF FREEDOM
BASE: REG+MET+AGE+MSX+CHD+OTH+INC+ED+RAC+MOV	18057	16109
(1) BASE PLUS MSX*CHD	18053	16107
(2) BASE PLUS MSX*OTH	18011	16107
(3) BASE PLUS CHD*OTH	18030	16108
(4) BASE PLUS MSX*CHD PLUS MSX*OTH	18008	16105
(5) BASE PLUS MSX*CHD PLUS CHD*OTH	18025	16106
(6) BASE PLUS MSX*OTH PLUS CHD*OTH	18001	16106
(7) BASE PLUS MSX*CHD PLUS MSX*OTH PLUS CHD*OTH	17997	16104
(8) BASE PLUS MSX*CHD*OTH	17995	16102

CONTRASTS	COEFFICIENT TESTED	G-SQUARED DIFFERENCE	DEGREES OF FREEDOM
(8) V (7)	MSX*CHD*OTH	2	2
(7) V (4)	CHD*OTH	11*	1
(7) V (5)	MSX*OTH	28*	2
(7) V (6)	MSX*CHD	4	2
(6) V (2)	CHD*OTH	10*	1
(6) V (3)	MSX*OTH	29*	2
(5) V (1)	CHD*OTH	28*	1
(5) V (3)	MSX*CHD	5	2
(4) V (1)	MSX*OTH	45*	2
(4) V (2)	MSX*CHD	3	2
(3) V BASE	CHD*OTH	27*	1
(2) V BASE	MSX*OTH	46*	2
(1) V BASE	MSX*CHD	4	2

*SIGNIFICANT AT .05 LEVEL

SOURCE: 1976 ANNUAL HOUSING SURVEY

FIGURE 1

EFFECTS OF PRESENCE OF CHILDREN AND AGE OF HOUSEHOLD HEAD
ON LOG-ODDS OF HOMEOWNERSHIP

HOUSEHOLD HEADS WHO MOVED DURING THE LAST TWELVE MONTHS

1976 ANNUAL HOUSING SURVEY

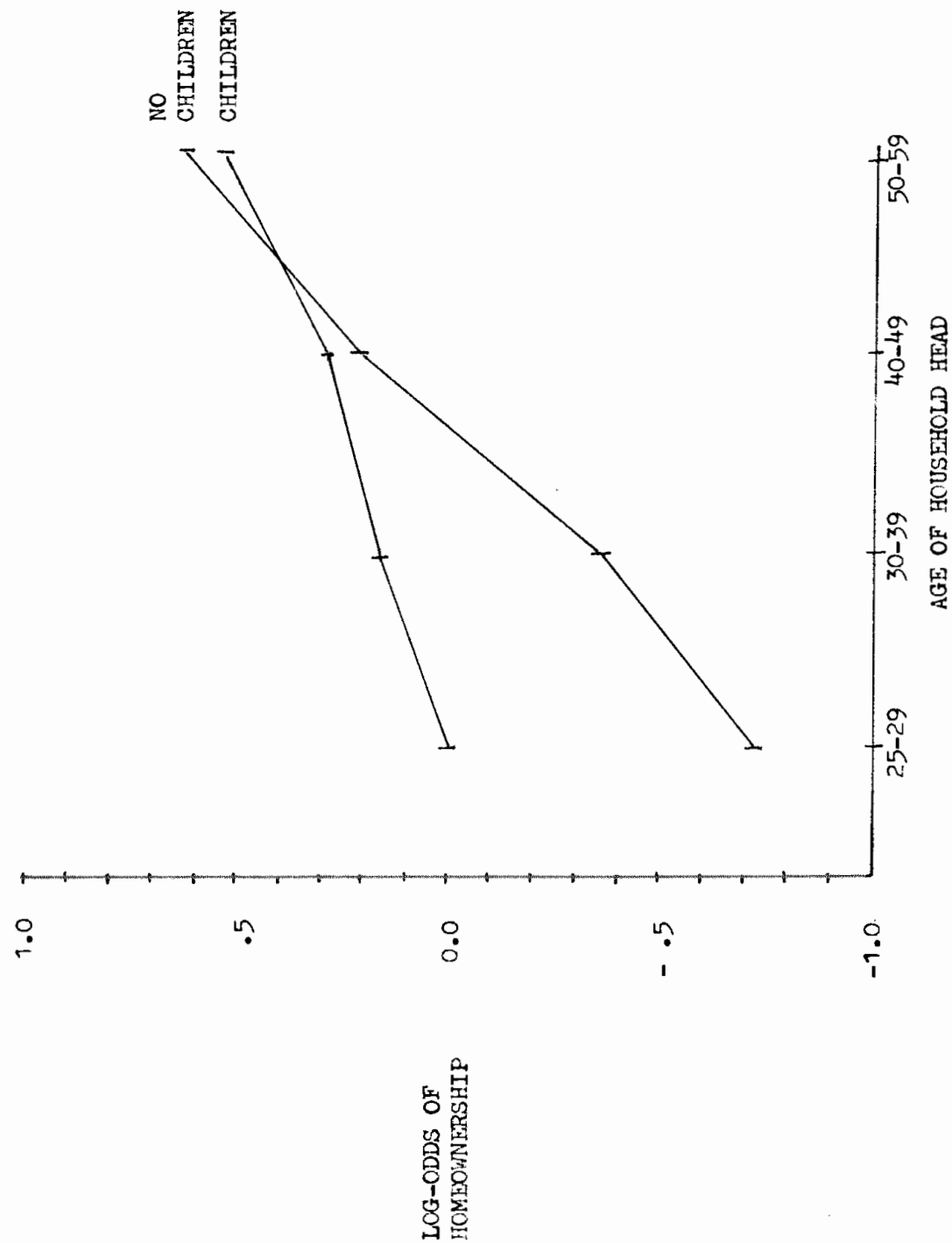


FIGURE 2

EFFECTS OF PRESENCE OF CHILDREN AND AGE OF HOUSEHOLD HEAD
ON LOG-ODDS OF HOMEOWNERSHIP

ALL HOUSEHOLD HEADS

1976 ANNUAL HOUSING SURVEY

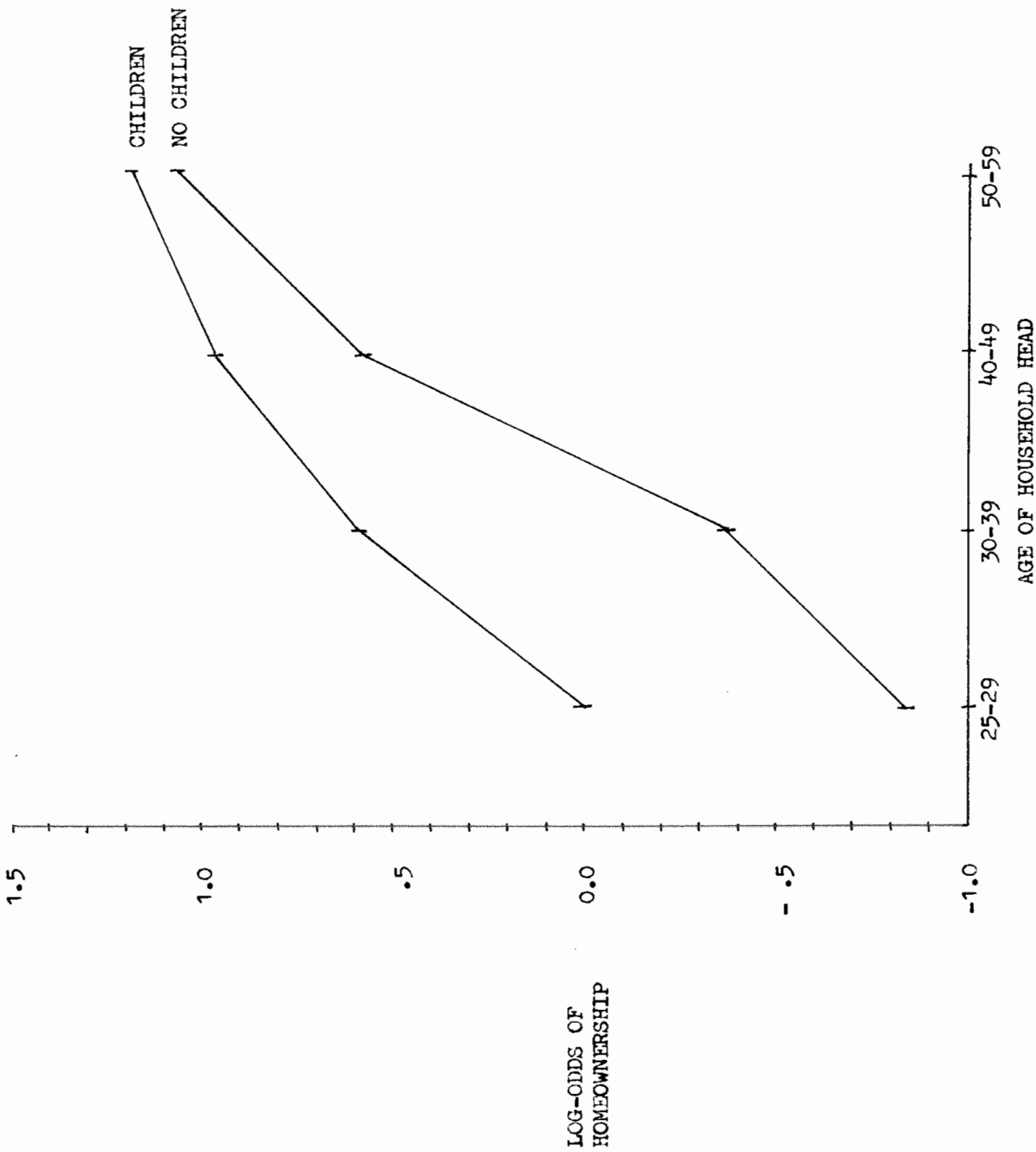


FIGURE 3

EFFECTS OF MARITAL STATUS/SEX AND AGE OF HOUSEHOLD HEAD
ON LOG-ODDS OF HOMEOWNERSHIP

ALL HOUSEHOLD HEADS

1976 ANNUAL HOUSING SURVEY

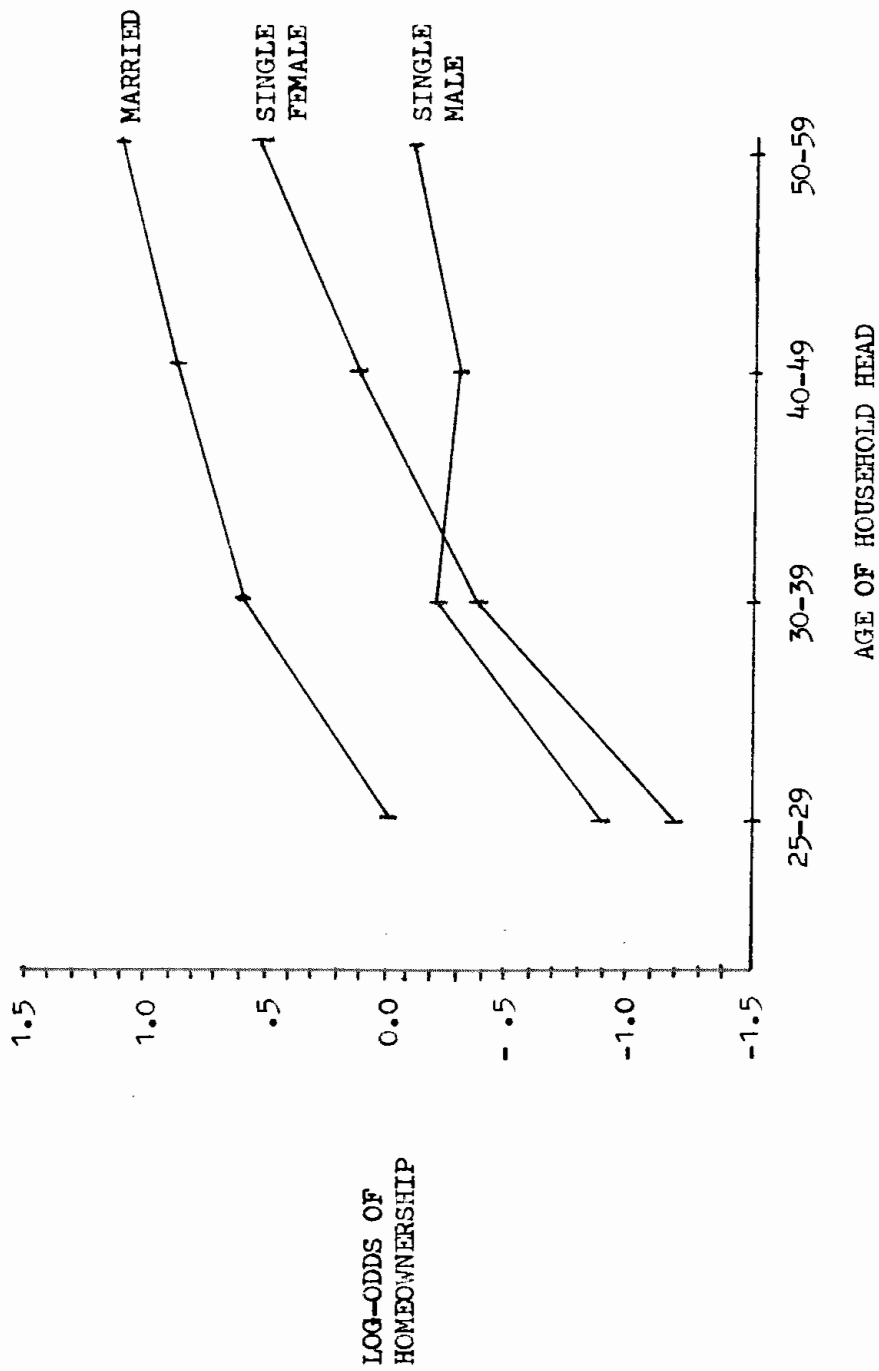


FIGURE 4

EFFECTS OF PRESENCE OF OTHERS AND PRESENCE OF CHILDREN
ON LOG-ODDS OF HOMEOWNERSHIP

HOUSEHOLD HEADS WHO MOVED DURING THE LAST TWELVE MONTHS

1976 ANNUAL HOUSING SURVEY

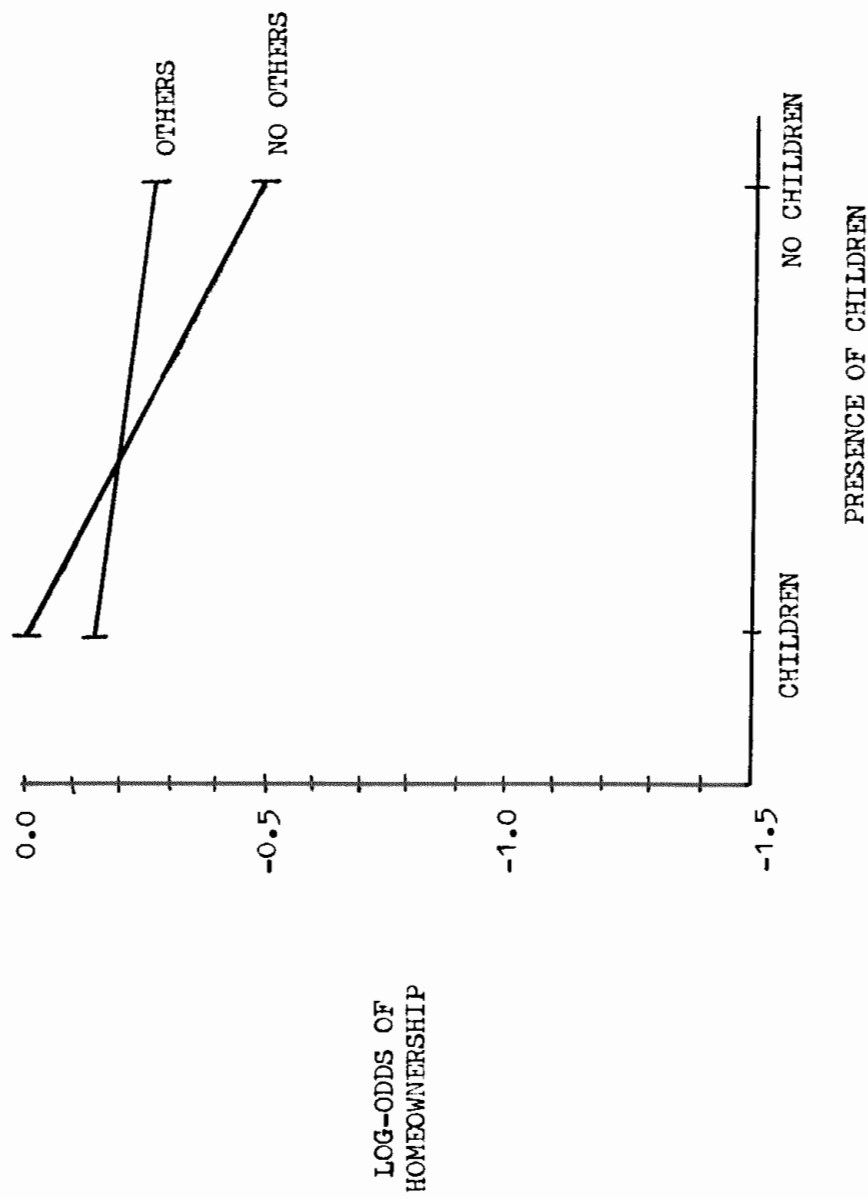


FIGURE 5

EFFECTS OF PRESENCE OF OTHERS AND MARITAL STATUS/SEX
ON LOG-ODDS OF HOMEOWNERSHIP

HOUSEHOLD HEADS WHO MOVED DURING THE LAST TWELVE MONTHS

1976 ANNUAL HOUSING SURVEY

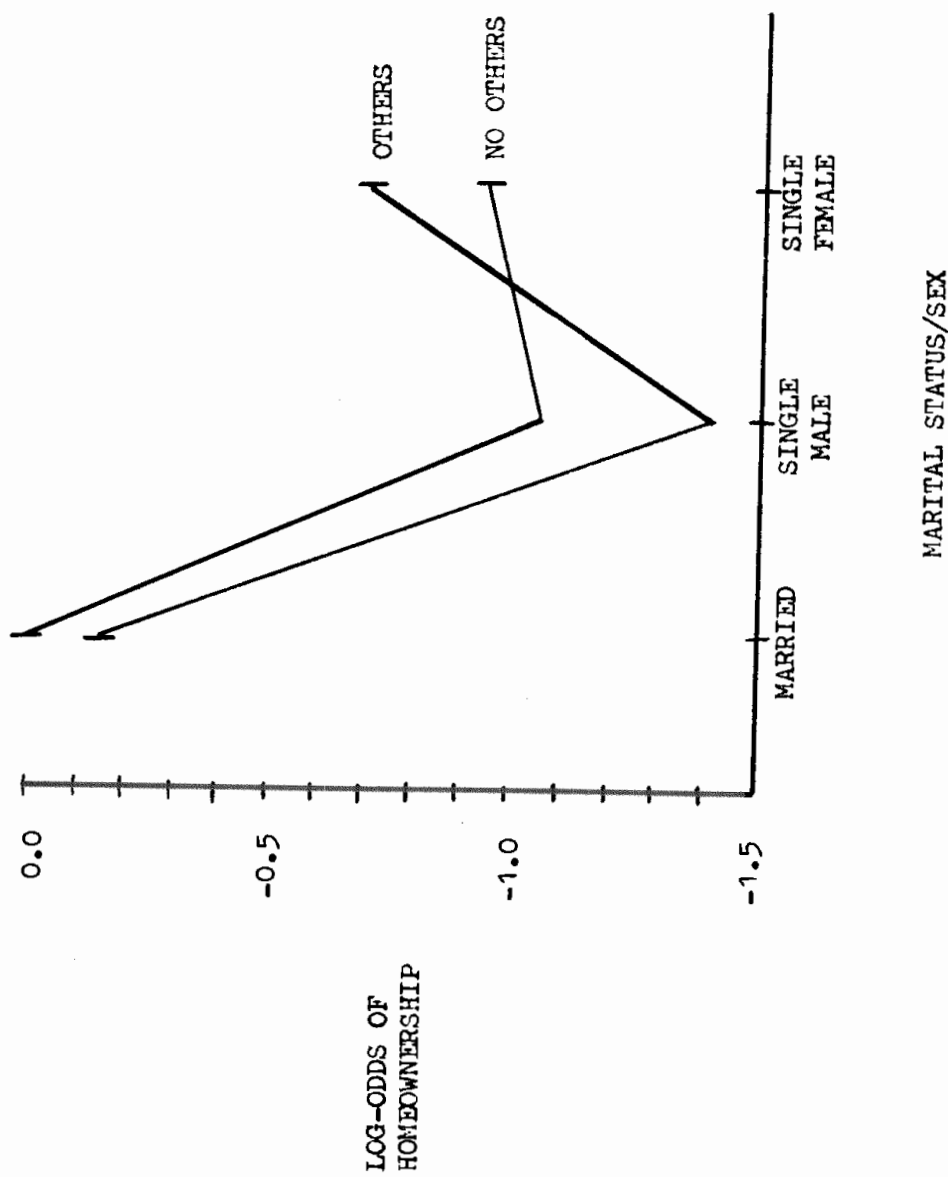


FIGURE 6

EFFECTS OF PRESENCE OF OTHERS AND PRESENCE OF CHILDREN
ON LOG-ODDS OF HOMEOWNERSHIP

ALL HOUSEHOLD HEADS

1976 ANNUAL HOUSING SURVEY

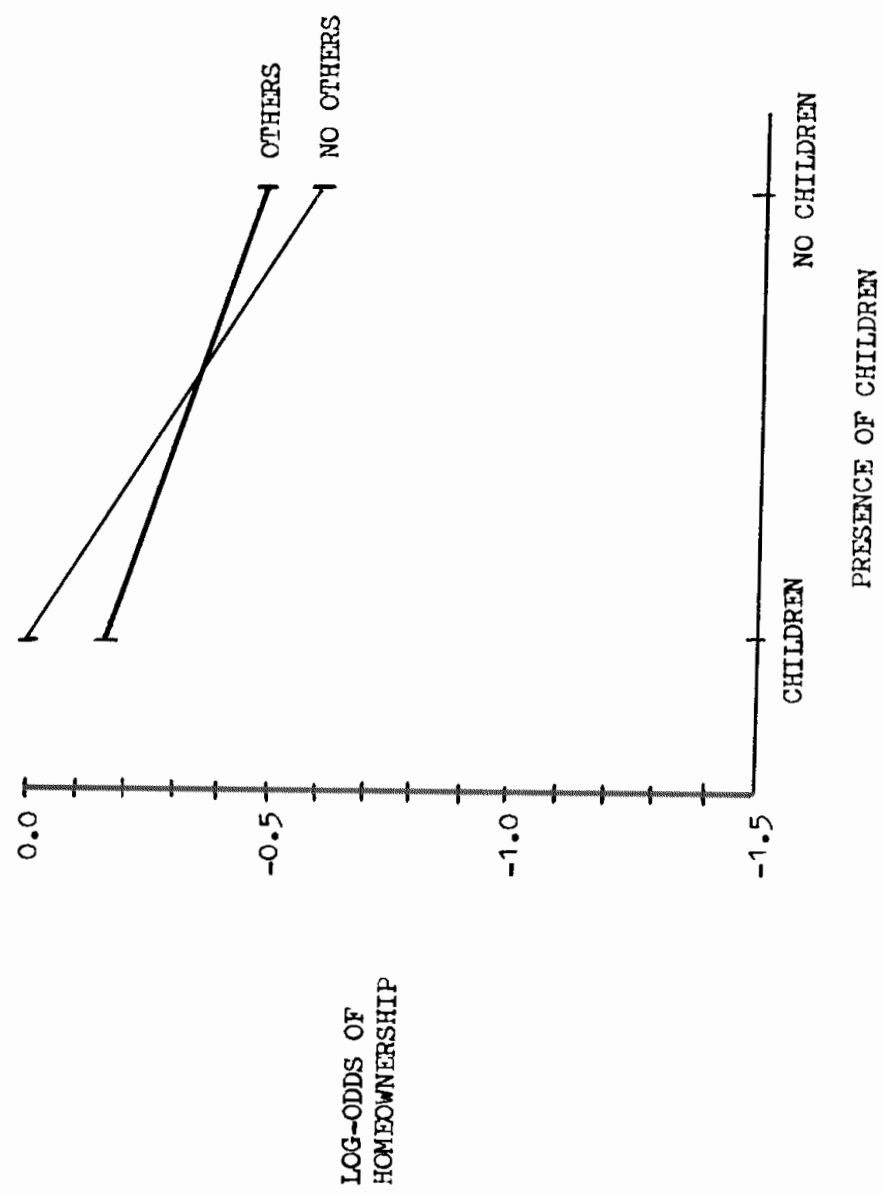
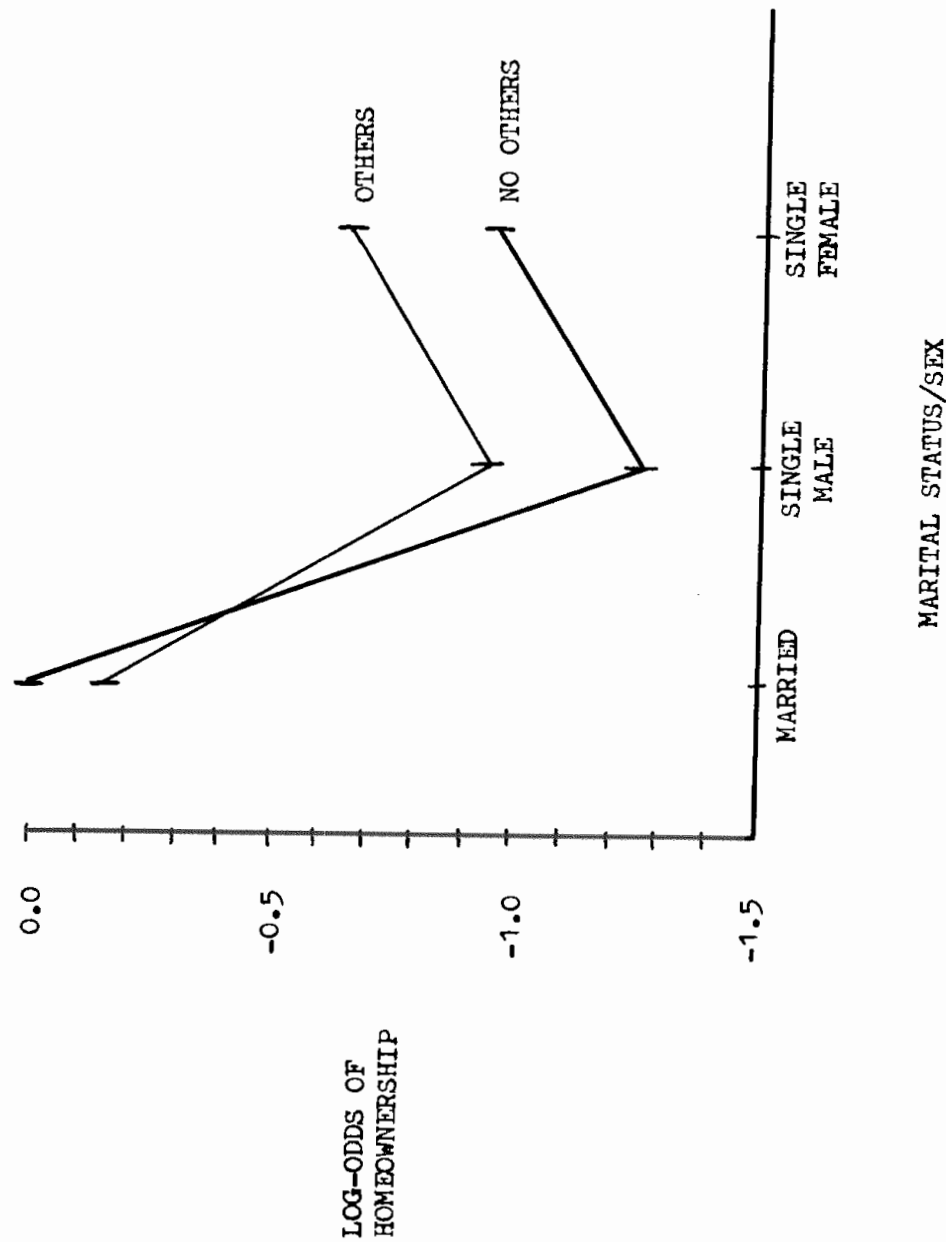


FIGURE 7

EFFECTS OF PRESENCE OF OTHERS AND MARITAL STATUS/SEX
ON LOG-ODDS OF HOMEOWNERSHIP

ALL HOUSEHOLD HEADS

1976 ANNUAL HOUSING SURVEY



Mailing Address:

Center for Demography and Ecology
4412 Social Science Building
1180 Observatory Drive
University of Wisconsin
Madison, WI 53706