Housing Expenditures of Elderly Households and Implication for Economic Well-Being

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노인가계의 주거비지출과 경제복지

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1970년대 이래로 노인들의 평균적인 경제상태가 향상되어 왔지만, 상당한 수의 노인들이 여전히 빈곤할 뿐만 아니라 노인들 각자가 경험하는 경제복지는 다르다. 본 연구는 노인들이 경험하는 경제복지를 조사하고 이를 바탕으로 상이한 노인가계들간의 복지상태를 비교하였다. 경제복지는 주거비가 차지하는 가계소득에 대한 비로 측정하였다. 노인가계는 노부부가계, 노인남성가계, 노인여성가계로 구분하였다. 미국의 3,449 노인가계들이 연구분석에 사용되었다. 노인가계들간의 경제복지를 비교하기 위해 다중회귀분석이 사용되어졌다. 분석결과에 의하면 상이한 노인가계들간에 경제복지는 상당한 차이가 있었다. 특히 노인여성인 경우 경제복지가 가장 낮은 것으로 나타났다.

INTRODUCTION

There are significant variations in the economic status of the elderly in the United States. Although the economic position of elderly individuals has, on the average, improved since 1970 (when the poverty rate was about 25% compared with 12% in 1988), many elderly are still poor (Hurd, 1989; Hurd & Wise, 1989; U.S. Department of Commerce, 1990b). Those most likely to be poor are the unmarried (compared with married) and females (compared with males). Unmarried elderly women in the United States deserve special attention because their economic resources are often inadequate and therefore their consumption of necessities, and hence their well-being, is likely to be low.

The 1987 poverty rate for unmarried elderly, those who were never-married, widowed, divorced, or separated, was higher than for married elderly, approximately 27% compared to 8%. In particular, the rate for unmarried elderly women was higher than that for their male counterparts, about 25% compared with 19% (U.S. Department of Commerce, 1989a, 1989b, 1990b; U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989). Although the individual income of married elderly women may also be low, they are likely to benefit from the income of their spouses.

Despite such variations in the economic status among the elderly, the population of the

elderly has often been regarded as homogeneous. Despite their low economic position, unmarried elderly women have received little attention. The purpose of this study is to examine the economic well-being experienced by the elderly, with a comparison among the elderly.

Several measures of economic well-being may be found in the literature. Perhaps the commonest is income. The average income of unmarried elderly women is lower than that of other population groups (Hurd & Wise, 1989); however, their needs may also be lower, since expenditure needs are affected by household size, housing tenure, and other factors. Thus, income may not provide a clear picture of the status of their well-being. An alternative is to examine consumption of necessities. According to Engel (Cochrane & Bell, 1956), the proportion of income or total consumption expenditures that goes to necessities declines as family income increases; thus, the budget share devoted to food or housing might be used as a measure of economic well-being.

Unlike expenditures for food or clothing, expenditures for rent, mortgage or other housing costs cannot readily be reduced (Courtless, 1971). As Stone (1990) indicated, housing costs generally make "the first claim on a household's disposable income" (p. 4), with non-housing expenditures as a residual having to adjust to what is left. That is, when a household pays more than it can afford for housing, it may be unable to meet its non-housing needs at a minimum level of adequacy. Hence, the likelihood that a poor household will be without adequate food and other necessities for part of a month is made considerably greater when the household's housing costs consume a large share of its income. Therefore, budget share devoted to housing can be expected to be correlated to household well-being, and, thus, is an appropriate measure of economic well-being of households. Despite the implication of budget share on housing for economic well-being, there has been little study of it.

The study is needed for two reasons: First, the elderly population is increasing not only in the absolute numbers, but as a share of the total population in the United States. From 1980 to 1985 the number of households with householder age 65 and over increased by 27%, more than three times the rate of increase in the population as a whole. By 2000, there are expected to be over 22 million such households, over 23% of the total population (U.S. Department of Census, 1986).

Furthermore, projections made by the U.S. Department of Commerce (1989c) to the year 2080 indicate a continuous increase in the number of elderly women in the United States. Due to sex differentials in life expectancy, and the changing marital composition of the population, there is a possibility of increasing numbers of unmarried elderly women who are poor. A study of the economic well-being of the elderly, comparing it among the elderly, will help to document the need for specific social and economic policies which have specific target groups.

Second, since the late 1970's, there has been an increase in the burden of housing costs. In the decade from 1977 to 1988, the price level for housing doubled, while incomes in the lowest income quintile rose by a smaller amount (U.S. Department of Commerce, 1990a, 1990b). Hence, the problems faced by poor households in finding affordable housing worsened appreciably (Leonard, Dolbeare & Lazere, 1989). According to a report by Stone (1990), nearly 27 million households in the United States face so great "a squeeze between inadequate incomes and high housing costs" (p. 1)

that they are unable to meet their non-shelter needs at even a minimum level of adequacy after paying for their housing. A study of budget share devoted to housing costs will help us to understand the current phenomenon of housing burden on individual elderly households. It will provide information which can be used to improve economic well-being of the elderly by focussing attention on a critical unmet need.

BACKGROUND

As household income rises, the proportion of it spent on housing declines. Data from the 1987 American Housing Survey (1989) showed that while the household (including both renter and homeowner households) with income under $5,000 paid, on the average, at least 70% of their income for housing costs in 1987, households with an income of $20,000 to $30,000 spent 21% and households with income in the $40,000 to $60,000 range paid, on the average, approximately 17%.

Further, the percentage of housing costs differs with housing tenure. Homeowners without mortgage debt paid the lowest percentage of their income for housing (13%), followed by home owners with mortgage (21%) and renters (29%) in 1987. The respective percentages for the elderly were 18%, 27% and 37% (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989).

Poor Households

According to standards established by the U.S. Department of Housing and Urban Development (HUD), housing is considered to be affordable if it consumes no more than 30% of the household's adjusted income (Leonard, Dolbeare & Lazere, 1989). By this HUD standard, about 70% of all the poor households below the poverty level in the United States did not live in affordable housing in 1987.

Both homeowners and renters suffered from high housing costs. Nearly one-third of all poor homeowners, approximately 4,608 households, paid at least 70% of their income for housing in 1987. In the same year, 50% of the poor homeowners had housing costs that consumed more than half of their income. The burden of poor homeowners included high costs for other housing expenses in addition to mortgage payments. Typically, the poor homeowner households that incurred these costs paid 35% of their income for fuels, other utilities, real estate taxes and insurance. Forty-one percent of about seven million renter households below the poverty level in 1987 paid at least 70% of their income for housing costs, including rent and utilities. Fifty-seven percent of the poor households paid at least 50% of their income for housing (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989). In summary, these extremely high housing costs imply a substantial burden of housing costs for approximately 12 million households living below the poverty level in 1987.

Elderly Households

Elderly households, an increasing segment of the population, are more likely to have low or moderate incomes than non-elderly households. In 1987, 26% of elderly households spent 30% or more of their income in housing. About 37% of all elderly households living below the poverty level spent at least 50% of their income on housing costs (U.S. Department of Commerce & U.S. Department of Housing and Urban Development,

1989).

In addition to facing a heavy burden of housing costs, a significant number of poor elderly households lived in substandard housing. In 1987, about 12% of poor elderly households lived in housing that had moderate or severe physical problems. In contrast, 5% of elderly households that were not poor lived in substandard housing (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989).

Homeowners. Elderly households are more likely than the non-elderly to own their homes. The 1987 American Housing Survey showed that about 80% of elderly households owned their homes in 1987. Many may have relatively low housing costs because they own their homes free and clear of mortgage payments. The survey showed that, in 1987, 83% of all elderly homeowners and about 88% of elderly households below the poverty level owned their homes free of mortgages (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989).

Despite the large proportion of elderly homeowners who have paid off their mortgages, many bear high housing costs. In 1987, 24% of all elderly homeowners paid more than 30% and 10% paid at least half of their income on housing. The high cost burden on elderly homeowners reflects the fact that their incomes are typically much lower than those of younger consumers. In 1987, about 14% of elderly homeowners were below poverty level, and 44% had income no more than twice the poverty line (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989).

In conclusion, elderly homeowners incur high housing costs even when free of mortgage payments. Such costs consists of utilities, maintenance, property taxes, and insurance, often constituting a substantial burden. As Stahl (1989) pointed out, one of reasons for the high housing costs of elderly homeowners may be the "ratchet effect in housing consumption" (p. 93) among the elderly. That is, income decreases due to the death or retirement of the primary wage earner often do not result in a decrease in the housing consumption of the household. Rather, the established housing consumption of the household is likely to be sustained, despite the decrease in income level.

Renters. Although renters constitute a minority of all elderly households (about 20% in 1987) and also of poor elderly households (about 30% in 1987), their housing problems are also significant. In fact, this reflects the fact that elderly renters are predominantly a low-income group. The median income of elderly renters was $8,727 in 1987, compared with $15,414 among elderly homeowners. In 1987, one of three elderly renters was poor, and seventy percent had incomes no more than twice the poverty line. Nearly three out of five elderly renters (58%) spent 30% or more of their income for rent and utilities. About three out of ten elderly renters (28%) spent at least half their income for housing expenses (U.S. Department of Commerce & U.S. Department of Housing and Urban Development, 1989).

Housing tenure by marital status. About 88% of married elderly couples owned housing in 1987, compared to about 64% of unmarried elderly men and 65% of unmarried elderly women. About 12% of married elderly couples were renters in 1987, about 36% of unmarried elderly men and 35% of unmarried elderly women (U.S. Department of

Commerce & U.S. Department of Housing and Urban Development, 1989).

METHODOLOGY Model

In the theory of consumer demand, individual households are assumed to maximize their utility from consumption goods and services, subject to the constraint that total expenditures in a given time period must not exceed income available in the time period. Quantity for a particular good is, thus, a function of income, price, and tastes and preferences of households. That is,

$$U = f(Q) \quad (1)$$

$$\text{subject to } \Sigma p_i q_i \leq Y \quad (2)$$

$$\text{Therefore, } q_i = q(Y, p_i, T\&P) \quad (3)$$

where U is utility obtained by a household in a given time period, Q is a vector of consumption goods and services, p_i is price of the ith good, q_i is quantity of the ith good, Y is current income of the household in the time period, and T & P represent tastes and preferences of the household.

Well-being refers to the state of being satisfied. It is an outcome (in part) of the consumption of goods and services. Given the close association between consumption and well-being, it is reasonable to assume that utility and well-being are synonymous and that measures based on consumption are good indicators of well-being.

Well-being is influenced not only by the absolute amount of consumption goods and servives, but also by the balance among categories of consumption goods and services (Hoyt, 1938). Balance can be expressed as percentage of income allocated to each category and utility or well-being at any given level of income can be regarded as being a function of percentage allocation.

Assume that the ith good is housing and the price of housing is costs (p_h) for housing consumption (q_h). Further, assume that there are two categories of consumption goods and services on which households spend their money: Housing (q_h), and non-housing goods and services (q_{non}). Thus, utility of a household is derived from the combination of housing and non-housing consumption. That is,

$$U = f(q_h, q_{non}) \quad (4)$$

If p_h of q_h increases and the quantity of q_h cannot be reduced, then percentage of income allocated to q_h will increase, and, thus, quantity of non-housing goods and services will be reduced. Although the utility from q_h may remain constant, that from q_{non} will be reduced and hence total utility or well-being (U) will be reduced.

Housing is a necessity, meaning that meeting one's needs for minimally adequate housing must take precedence over other less urgent needs. Therefore, percentage of income on housing can be inferred to indicate well-being and will, in this analysis, be used as a measure of economic well-being. It will be estimated by the ratio of housing expenditures to income of a household, expressed as a percentage. The higher the percentage, the lower the economic well-being of household.

A knowledge of the socio-demographic characteristics of a household is essential to the study of consumption behavior. As Stone (1990) pointed out, housing needs are influenced by household size and type. Thus, household size and type, as well as other household characteristics,

are associated with its tastes and preferences for housing. The price or cost of housing can be assumed to be constant for all households. Therefore, (based on equations 1 and 3), economic well-being is hypothesized to be related to income and socio-demographic characteristics of the household. The model is as follows:

$$E = a_0 + a_1x_1 + a_2x_2 + \ldots\ldots + a_nx_n + e \qquad (5)$$

where E is economic well-being of a household (represented by percentage of income spent on housing), x_1 is income, x_2, ..., x_n are socio-demographic characteristics of the household, and e is error term.

Hypothesis

The hypothesis of this study was that there are differences in economic well-being among the elderly. In particular, the economic well-being of unmarried elderly women is lower than that of other elderly.

Data

The data for the empirical analysis were taken from the 1988 Consumer Expenditure Survey by the Bureau of Labor Statistics (BLS), U.S. Department of Labor (1990a). The Consumer Expenditure Survey utilizes national probability samples of households, designed to represent the United States population. The survey design is a rotating panel survey with quarterly interviews in which each sample household is interviewed once each quarter for five consecutive quarters. The first interview is used only for bounding purposes. One-fifth of the households are replaced each quarter in the sample. The 1988 interview survey data tape contained the reports of more than 5,000 sample households for each of five consecutive quarters from the first quarter of 1988 through the first quarter of 1989, respectively.

The unit of analysis is the consumer unit (CU). The consumer unit is, as defined by the BLS (U.S. Department of Labor, 1990a), (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements, (2) a person living alone or sharing a household with others or living as a roomer in a home, but who is financially independent[1], or (3) two or more persons living together who pool their income to make joint expenditure decisions.

In each consumer unit, one person was defined as the reference person. This was the first member mentioned by the respondent when asked who owned or rented the home. It is with respect to this person that the relationship of other consumer unit members was determined. The term "householder" will be used to denote the reference person.

To prepare a data set for this study, CU's in which age of householder was 65 and over were After the adjustment, the study for analysis was 3,559 elderly CU's. To assess the representativeness of the study sample, mean annual after-tax income was compared with average annual after-tax income of all elderly CU's, reported by BLS (1990b). In general, the mean annual after-tax income of the study sample and

1. The BLS determined the financial independence by three major expense categories, i.e., housing, food, and other living expenses. To be considered financially independent, at least two of the three major expense categories had to be provided by the respondent (U.S. Department of Labor, 1990a).

BLS estimation were similar in magnitude.
identified in each of four quarters of 1988, making a total sample of 4,076 CU's. [2]Several tests were performed to assess the accuracy of the data. Each variable was checked for missing data and top-coding. Cases that had missing values or that were top-coded because of extreme values were excluded. Those that did not report income completely or reported no expenditures for housing were omitted from the study sample.

Method of Analysis

Variables. The dependent variable was the percentage of annual after-tax income of a CU devoted to housing in the survey year. Annual housing expenditures of the CU were estimated by multiplying total housing expenditures for the quarter by 4. Housing expenditures included expenditures on shelter, utilities, fuels and public services, household operations, and housing furnishings and equipment.

Socio-demographic variables are essential to the study of housing consumption because they serve as proxies for tastes and preferences of consumers (Ferber, 1973; Hamermesh, 1984). The 1987 American Housing Survey (1989) showed that there were differences in the housing expenditures of households depending on type, size, age of householder, housing tenure, race of householder, region, and income. In addition to these variables, education of householder was also included in the model. Urbanization, which, according to the housing survey, is also associated with housing expenditures, was not included because "urban", as defined in the BLS survey, included the rural population within metropolitan statistical areas and was not reported in one region.

CU type was divided into three groups, based on the marital status and sex of householder: Married elderly couple, unmarried elderly man, and unmarried elderly woman. These three groups were represented by two dummy variables, with the married elderly couple as a reference group. Housing tenure was divided into three groups: Homeowner with mortgage, homeowner without mortgage, and renter. Renter was used as a reference group. Total annual after-tax income of a CU was used as the income variable in the model. The income defined by the BLS (1990a) is the combined income earned by all consumer unit members 14 years old or over during the 12 months preceding the interview. The income includes: Wage and salary income; income from self-employment; pensions and social security income; unemployment and worker's compensation; public assistance or welfare; interest on savings accounts or bonds, dividens, and royalties; rental income; income from regular contributions; and food stamps. Education of householder was measured by years of education. Race of householder was divided into white and non-white groups. Non-white was assumed as a reference group. It included black, Asian and Pacific Islanders, American Indians, Aleut, Eskimo, and others. For region, midwest was used as a reference.

Analysis. Multiple regression analysis was used to test for differences in level of economic well-being among CU types. Also, it was used to examine the relationship between economic well-being of CU's and income and socio-demographic variables. To test for

2Some CU's were interviewed in more than one of the four quarters. Each interview was treated as a separate observation.

collinearity, the correlation coefficients between housing and socio-demographic and income variables in the model were examined. All the correlation coefficients were less than .5. The correlation matrix among variables is presented in Table 1. The hypothesis was tested by exmining the level of significance of b coefficients. The F-value was used to test the significance of R^2.

EMPIRICAL RESULTS

Sample Characteristics

The sample characteristics were examined in two ways, one with the sample as a whole, and the other with three types of elderly consuming units (CU's) grouped by marital status and sex, married elderly couple, unmarried elderly man and unmarried elderly woman CU's. The characteristics are summarized in Table 2 and Table 3. Of the 3,559 CU's, nearly half were married elderly couple CU's, about 11% were unmarried elderly man CU's, and about 41% were unmarried elderly woman CU's. The CU's averaged two persons in size. Comparing CU size among three types of the elderly CU's, CU's of married elderly couple had higher size than other two CU types.

Approximately 60% of the elderly CU's were homeowners without mortgage, about 14% were homeowners with mortgage, and about 25% were renters. For housing tenure of married elderly couples, the percentage of homeowner without mortgage was the highest (65.1%), followed by homeowner with mortgage and renter. For unmarried elderly man CU's, the percentage of homeowner without mortgage was the highest (56.2%). About one-third of unmarried elderly woman CU's (33.7%) were renter, and about 10% were homeowner with mortgage. More than half of CU's with unmarried elderly men were homeowners without mortgage (about 61%). Homeowner with mortgage was the lowest (7.5%). About 31% was renters. Compared with married elderly couple CU's, substantial proportions of unmarried elderly man and unmarried elderly woman CU's were renters. Average annual after-tax income of the elderly CU's was $16,774. That of married elderly couple CU's was the highest, followed by unmarried elderly man CU's and unmarried elderly woman CU's. In fact, the average annual after-tax income of the married elderly CU's was about twice that of the unmarried elderly woman CU's. About 52% of the income of these elderly CU's was devoted to housing consumption. Among three types of the elderly CU's, the percentage of income devoted to housing consumption by unmarried elderly woman CU's was the highest (64%). That of unmarried elderly man CU's was 61.2%. That of married elderly couple CU's was that lowest (38.6%).

Average age of the elderly was about 74. The average age of householders of married elderly couples was less than that of householders of unmarried elderly men, 72 and 74, respectively. The average age of householders of unmarried elderly women, as 75 years old, was the highest. The education level of the elderly householders was, on the average, low. About three-fourths were high school graduates or less. Among three types of the elderly CU's, the eudcation level of unmarried elderly woman householders was lower that the other two elderly CU's. Nearly nine-tenths of the elderly householders were of the white race, while the remainded were about equally distributed among the other three regions.

Regression Results

The hypothesis that there are differences in economic well-being experienced by the elderly and, in particular, the economic well-being of unmarried elderly women is lower than that of other elderly was partially supported. The results of the regression analysis are summarized in Table 4. The F-ratio for the model and t-values for unmarried elderly woman, homeowner with mortgage, income, education, and race were significant in the regression analysis. Two percent of the variance was explained.

The percentage spent on housing was positively related to unmarried elderly woman. It was about 16 percentage points higher if the householder was an unmarried elderly woman, indicating that, other factors being held constant, unmarried elderly women spent more in relation to income on housing than did married elderly couples. However, there was no difference in the percentage spent on housing by married elderly couple CU's and CU's headed by unmarried elderly man, other factors being equal. Meanwhile, test statistic with respect to unmarried elderly man and unmarried elderly woman showed that the percentage spent on housing of unmarried elderly man CU's was significantly different from that of unmarried elderly woman CU's. That is, unmarried elderly woman CU's spent a higher percentage of income on housing than did unmarried elderly man CU's. The percentage spent on housing was significantly and positively related to education. That is, when other factors were held constant, elderly CU's with higher education spent a larger percentage of their income on housing.

The percentage spent on housing was negatively related to being a homeowner without mortgage, indicating that, other factors being held constant, the elderly householder who owned a home without mortgage spent a smaller share of income on housing than did renters. However, there was no difference in the percentage spent on housing by homeowners with mortgage and renters. Income was also negatively related to the percentage spent on housing. There was a significnat and negative relationship between race and the percentage spent on housing. Elderly CU's whose householders were white spent a smaller percentage on housing than those whose householders were non-white.

Age, CU size, and region were not significantly related to the percentage spent on housing by the elderly.

CONCLUSIONS AND IMPLICATIONS

The results of this study indicate that, in particular, the economic well-being of unmarried elderly women is lower than that of other elderly. This was true even when income, housing tenure, and other factors were the same. Why unmarried elderly women should be find themselves constrained to spend a higher percentage of income on housing than other elderly do is a matter for speculation. More research is needed to find out what special circumstances or needs lead to the situation.

Homeownership does yield significant economic benefits for the elderly in the form of lower housing costs, but only if there is no mortgage debt. Homeowners with debt spent about the same percentage of income on housing as did renters. Unmarried elderly women who are renters are of concern. Even if the relative number of unmarried elderly women who are renters is small, they are poor.

Most of the variance in economic

well-being, as measured by percentage spent on housing, was not accounted for by the model. Further study is needed to identify other factors associated with well-being. Nevertheless, the results provide substantial support for the existence of a difference in economic well-being between the unmarried elderly women and other elderly. The findings of this study suggest that social and economic welfare policies should not be uniform among the elderly. There is a need for housing alternatives which can accomodate the needs of single elderly women at a cost they can afford in order to safeguard their economic well-being. Unless new options become available, their well-being is likely to continue to be lower than that of mainstream America.

Table 1 Correlation Matrix for Variables

	E	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}
E	1.00												
X_1	-.11	1.00											
X_2	.00	-.16	1.00										
X_3	.04	.15	.21	1.00									
X_4	.08	.04	.06	-.51	1.00								
X_5	.02	-.08	.00	-.07	.00	1.00							
X_6	.06	-.25	.20	-.10	-.08	-.30	1.00						
X_7	.05	.09	.03	-.02	.11	-.06	-.04	1.00					
X_8	.00	.28	-.18	.08	.03	-.05	.05	.19	1.00				
X_9	.04	.26	-.24	.16	.01	-.19	-.40	-.12	-.02	1.00			
X_{10}	.02	-.02	.02	-.03	-.07	.03	.01	.10	-.01	-.03	1.00		
X_{11}	.03	-.03	.01	.03	-.03	.03	-.01	-.15	-.04	.05	-.28	1.00	
X_{12}	.02	.08	-.02	.08	-.09	.04	.04	-.04	.13	-.02	-.24	-.26	1.00

Note: E is housing as a percentage of income; X_1 is income; X_2 is age of householder; X_3 is homeowner with mortgage; X_4 is homeowner without mortgage; X_5 is unmarried elderly man; X_6 is unmarried elderly woman; X_7 is race of householder; X_8 is CU size; X_{10} is north; X_{11} is south; X_{12} is west

Table 2. Characteristics of Elderrly Consumer Units

(N = 3,559)

Variables	Mean or Percentage
CU type:	
married ederly couple	47.6
unmarried elderly man	11.2
unmarried elderly woman	41.2
CU size	1.8
Housing tenure:	
homeowner with mortgage	14.2
homeowner without mortgage	61.0
renter	24.8
Income ($)	16,774
Housing as a percent of income	51.6
Age of householder	73.8
Education of householder:	
high school or less	74.6
more than high school	25.4
Race:	
white	88.6
non-white	11.4
Region:	
north	20.7
midwest	23.6
south	23.2
west	32.5

Table 3. Charteristics of Elderly Consumer Unites By Marital Status and Sex

Variables	Mean or Percentage		
	married elderly couple	unmarried elderly man	unmarried elderly woman
CU size	2.3	1.3	1.3
Housing tenure:			
homeowner with mortgage	19.2	7.5	10.1
homeowner without mortgage	65.1	61.1	56.2
renter	15.7	31.4	33.7
Income ($)	22,777	12,652	10,952
Housing as a percent of income	38.6	61.2	64.0
Age of householder	72.4	73.8	75.3
Education of householder:			
high school or less	71.2	75.1	78.4
more than high school	28.8	24.9	21.6
Race:			
white	91.0	83.4	87.2
non-white	9.0	16.6	12.8
Region:			
north	19.5	23.6	21.4
midwest	39.6	36.2	35.7
south	22.8	26.4	22.8
west	18.1	13.8	20.1

Table 4. REGRESSION RESULTS ON ECONOMIC WELL-BEING FOR ELDERLY CONSUMER UNITS

Independent variables	coefficients
Unmarried elderly man	14.43 (1.46)
Unmarried elderly woman	15.62** (2.25)
CU size	.72 (.20)
Homeowner with mortgage	15.12 (1.57)
Homeowner without mortgage	-18.80** (-2.78)
Income	-9.20** (-5.79)
Age of householder	-.13 (-.30)
Education	1.77** (2.49)
Race	-19.68** (-2.15)
North	8.14 (1.11)
South	7.19 (.98)
West	-8.87 (1.07)
R^2(adjusted)	.021
F-ratio	7.37**

Figures in parentheses are t values
* Significant at .05 level
** Significant at .01 level

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