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# Problem B: Factors Associated with Levels of Living of the Elderly in Hamblen County, Tennessee

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## To the Graduate Council:

I am submitting herewith a thesis written by Anthony C. Griffin entitled "Problem B: Factors Associated with Levels of Living of the Elderly in Hamblen County, Tennessee." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agriculture and Extension Education.

, Major Professor

We have read this thesis and recommend its acceptance:

ARRAY(0x7f6ff9860820)

Accepted for the Council: Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

I am submitting herewith a Problem in Lieu of Thesis written by Anthony C. Griffin entitled "Factors Associated with Levels of Living of the Elderly in Hamblen County, Tennessee." I recommend that it be accepted for three quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Extension.

We have read this problem and recommend its acceptance:

Accepted for the Council:

Vice President for Graduate Studies and Research

# PROBLEM B: FACTORS ASSOCIATED WITH LEVELS OF LIVING OF THE ELDERLY IN HAMBLEN COUNTY, TENNESSEE

A Problem in Lieu of Thesis

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Anthony C. Griffin

March 1972

#### **ABSTRACT**

The purpose of this investigation was to identify some of the factors associated with the levels of living of elderly residents of Hamblen County, Tennessee. Levels of living were determined by the number of selected home improvements items possessed by each household.

Multiple regression analysis was the statistical tool used to assess levels of living. Possession of these home improvement items was analyzed according to 11 independent variables.

The variable "education of the female" accounted for approximately 18 percent of the variation in levels of living, and appeared to be the best overall predictor of variations in level of living of the households surveyed. Women with more education tended to have a significantly larger number of home items than did those with less education.

Nearly 6 percent of the variation in levels of living was accounted for by where the senior female member of the household was reared. Elderly women reared outside Hamblen County tended to have a significantly larger number of home items than those reared in Hamblen County.

Approximately 4 percent of the variation in levels of living was accounted for by marital status. Married couples tended to have a significantly greater number of home items than those who were not married.

Income of the household head accounted for approximately 2 percent of the variation in levels of living. Those elderly with higher

incomes tended to have a significantly larger number of home items than those with lower incomes.

The major lifetime occupation of the male household head accounted for nearly 1 percent of the variation in levels of living. Those who worked in professional or semi-professional occupations tended to have a significantly greater number of home items than those who worked in skilled or semi-skilled jobs. Also, those who worked in skilled or semi-skilled occupations tended to have a significantly larger number of home items than those who reported farming to be their major lifetime occupation.

These five independent variables accounted for approximately 31 percent of the variation in levels of living of the households surveyed. While other variables were also significantly related to level of living, they did not appreciably add to the percent of variation accounted for in levels of living.

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#### CHAPTER I

#### SITUATION AND NEED FOR THE STUDY

#### Introduction

The number of elderly people in Tennessee has increased considerably in recent years. From 1940 to 1967, the number of those aged 65 and over had more than doubled, 1 and according to 1970 Census information, there are presently some 383,000 people in this age group in Tennessee, comprising almost 10 percent of the state's population.

However, the overall purchasing power of the elderly has not kept pace with their increasing numbers. <sup>2</sup> In Hamblen County, Tennessee, the locale of this study, 80 percent of the elderly household heads in 1967 earned under \$3,000 per year, and 70 percent of elderly heads of households in Tennessee earned under this amount in 1967. <sup>3</sup>

Federal assistance programs such as Medicare, Social Security, and Old Age Assistance reflect the public concern regarding the nation's elderly. However, in order to help meet the social, economic, and political needs of a growing population of elderly citizens, further research is needed.

Frank O. Leuthold and Merton Badenhop, "The Social-Economic Position of the Elderly in Tennessee and the Cumberland Plateau Region,"

Tennessee Farm and Home Science, Progress Report 62 (Knoxville: Agricultural Experiment Station, University of Tennessee, April, May, June, 1967), pp. 2,3.

Ewald W. Busse and Eric Pfeiffer (eds.), <u>Behavior and Adaptation</u> in Late Life (Boston: Little, Brown, and Company, 1969), p. 382.

<sup>3</sup>Leuthold and Badenhop, op. cit., p. 3.

# Purpose of the Study

This study was conducted in an effort to identify some of the factors associated with the levels of living of a randomly-selected sample of Hamblen County residents, aged 65 and over.

# Methods

A total of 133 elderly persons (i.e., aged 65 and over) were interviewed in a 1968 survey designed and conducted by the Department of Agricultural Economics and Rural Sociology of the University of Tennessee, Knoxville.

Level of living in this study was determined to be the number of 16 selected home improvement items in each of the households of the elderly interviewed.  $^4$ 

Included in the survey data were 71 married couples where the husband was 65 years of age or over, and 62 formerly married persons who were in this age group. Data on former husbands and wives were included with that of those who were married at the time of the study.

Possession of these home items was analyzed according to the following independent variables: (1) education of the male, (2) education of the female, (3) place where the male was reared (i.e., whether in Hamblen County or elsewhere), (4) place where the female was reared (i.e., whether in Hamblen County or elsewhere), (5) marital status, (6) income of the household head, (7) major lifetime occupation of

<sup>&</sup>lt;sup>4</sup>These home items were: telephone, electric range, refrigerator, deep freeze, automatic clothes washer, television, clothes dryer, color television, piped-in water, hot water heater, flush toilet, bath or shower, dishwasher, air-conditioning, and air-conditioning in the car.

the elderly male in the household, (8) the elderly female's age at marriage, (9) family income, (10) number of living children, and (11) residence (i.e., whether alone or with others).

Multiple regression analysis was the statistical tool used to measure relationships between the above variables and levels of living. The simple coefficient of correlation (r) measures relationships between each independent variable and level of living.

#### CHAPTER II

#### DISCUSSION OF FINDINGS

#### Education

Data in Table I show that the education of the female was significantly related (r=.423) to levels of living. This variable accounted for nearly one-fifth (18%) of the variation in living levels.

The 52 females who had less than eight years of formal education reported an average of 7.3 of the 16 home items. The 49 women having from eight to eleven years of schooling averaged 8.3 home items, while the 21 completing high school reported 9.6 of these items. Eleven women had completed 12 or more years of school, and reported 10.8 home items.

The education of the male also was significantly related (r=.342) to level of living. In the set of 11 variables where education of the female and 10 other items were included, the education of the male did not account for an appreciable increase in the percent of variation explained (.16%).

#### Place Where Reared

As shown in Table II, there was a significant correlation (r=.209) between where the female was reared and level of living. This variable accounted for approximately 6% of the variation in levels of living of the households surveyed.

In 67 of the 133 households interviewed, the female was reared

Table I Relationship Between Education of the Female and Male and Level of Living for 133 Households  $^{\rm a}$ 

Years of Education	N	Female <sup>b</sup> Level of Living	N	Male <sup>C</sup> Level of Living
0-7	52	7.3	57	7.8
8-11	49	8.3	42	8.8
12	21	9.6	23	10.2
More than 12	_11	10.8	_11	9.3
Total	133	8.6	133	8.6

Level of living refers to the average number of home items in each household.

Table II

Relationship Between Place Where the Male and Female Were Reared and Level of Living for 133 Households<sup>a</sup>

Place Reared	N	Female <sup>b</sup> Level of Living	N	Male <sup>C</sup> Level of Living
Hamblen County	67	8.1	70	8.2
Outside Hamblen County	66	9.1	63	9.0
Total	133	8.6	133	8.6

Level of living refers to the average number of home items in each household.

 $<sup>^{\</sup>rm b}$  Pearson r=.423 (.05) accounting for 17.9% of the variation in levels of living.

 $<sup>^{\</sup>text{C}}\text{Pearson r=.342}$  (.05) accounting for .16% of the variation in levels of living.

 $<sup>^{</sup>b}$ Pearson r=.209 (.05) accounting for 5.7% of the variation in levels of living.

Pearson r=.191 (.05) accounting for .27% of the variation in levels of living.

in Hamblen County. These had an average of 8.1 of the 16 home items.

The remaining 66 households reported that the senior female member was reared outside Hamblen County. These averaged 9.1 of the selected home improvement items.

There was a significant correlation (.191) between place where the male was reared and level of living. However, the place where the male was reared did not account for an appreciable increase in the percent of variation explained (.27%).

# Marital Status

The marital status of the persons interviewed was significantly related (-.256), in a negative direction, to levels of living. As shown in Table III, nearly 4 percent of the variation in levels of living was accounted for by this variable. Those elderly who were married tended to have a significantly larger number of home items than those who were single or widowed. The 71 married couples reporting had an average of 8.8 home items, while the 62 people who were widowed or otherwise single averaged 7.9 of these items in the home.

## Income of the Household Head

Data in Table IV show that the income of the household head was significantly related (.387) to level of living. Approximately 2 percent of the variation in levels of living may be accounted for by this variable. The 85 people with incomes up to \$2,900 per year averaged 8 of the 16 home items. Twenty-eight people earned from

Table III

Relationship Between Marital Status and Level of
Living for 133 Households<sup>a</sup>

Marital Status <sup>b</sup>	N	Level of Living
Married	71	8.8
Single or Widowed	62	7.9
Total	133	8.6

<sup>&</sup>lt;sup>a</sup>Level of living refers to the average number of home items in each household.

Table IV

Relationship Between Income of the Household Head and Level of Living for 133 Households a

Income	N	Level of Living
Up to \$2,900	85	8.0
\$3,000 to \$4,900	28	8.9
\$5,000 or more		10.7
Total	133	8.6.

<sup>&</sup>lt;sup>a</sup>Level of living refers to the average number of home items in each household.

 $<sup>^{</sup>b}$ Pearson r=-.256 (.05) accounting for 3.6% of the variation in level of living.

<sup>&</sup>lt;sup>b</sup>Pearson r=.387 (.05) accounting for 2.2% of the variation in levels of living.

\$3,000 to \$4,900 per year and had an average of 8.9 home items. Twenty elderly with incomes of \$5,000 or more per year reported an average of 10.7 of the 16 home items.

## Occupation

Data in Table V show that some relationship (.271) was found between the occupation of the elderly male in the household and level of living.

Approximately 1 percent of the variation in levels of living may be accounted for by this variable.

Fifty-two persons reported farming to be the major lifetime occupation of the elderly male of the household. These had an average of 7.9 home items. Forty-seven people worked in skilled or semi-skilled jobs, and averaged 8.7 of these items. The 34 elderly males who had worked in professional or semi-professional jobs had an average of 9.6 home items.

Table V

Relationship Between Major Lifetime Occupation of the Male and Level of Living for 133 Households<sup>a</sup>

Occupation	N	Level of Living
Farmer	52	7.9
Skilled, semi-skilled	47	8.7
Professional, semi-professional	34	9.6
Total	133	8.6

<sup>&</sup>lt;sup>a</sup>Level of living refers to the average number of home items in each household.

Pearson r=.271 (.05) accounting for 1.4% of the variation in levels of living.

#### CHAPTER III

#### SUMMARY AND CONCLUSIONS

During the summer of 1970, a research study was initiated by the Department of Agricultural Economics and Rural Sociology of the University of Tennessee, Knoxville, to determine the levels of living of a randomly-selected sample of elderly residents (i.e., those 65 years of age and over) in Hamblen County, Tennessee. Information for the present study was compiled from research conducted by the Department of Agricultural Economics and Rural Sociology during 1968.

A total of 133 elderly residents, representing as many households in Hamblen County, responded to personal questionnaires. Level of living for each household was determined by the number of selected home improvement items possessed by each household.

Possession of these home items was analyzed according to the following independent variables: (1) education of the female, (2) education of the male, (3) place where the female was reared (i.e., in Hamblen County or elsewhere), (4) place where the male was reared (i.e., in Hamblen County or elsewhere), (5) marital status, (6) income of the household head, (7) major lifetime occupation of the elderly male in the household, (8) age of the female at marriage, (9) family income, (10) number of living children, and (11) residence (i.e., whether alone or with others). Multiple regression analysis was the statistical tool used to assess level of living according to the above independent variables.

It was found that the variable "education of the female" appeared to be the best overall predictor of the variation in levels of living of the households interviewed. This variable accounted for approximately 18 percent of the variation in levels of living. Women with more education tended to have a significantly larger number of home items than those with less education.

Nearly 6 percent of the variation in levels of living may be predicted on the basis of whether the senior member of the household was reared in Hamblen County or elsewhere. Those elderly women who were reared outside Hamblen County tended to have a significantly larger number of the 16 home items than those who were reared in Hamblen County.

Approximately 4 percent of the variation in levels of living of the households interviewed were accounted for by marital status.

Married couples tended to have a significantly greater number of home items than those who were widowed or otherwise single.

Approximately 2 percent of the variation in levels of living were accounted for by the income of the household head. Those elderly with higher incomes tended to possess a significantly larger number of home items than those with lower incomes.

Nearly 1 percent of the variation in levels of living were explained by the major lifetime occupation of the elderly male in the household. Those elderly males who worked in skilled or semi-skilled capacities tended to have a significantly larger number of home items than those who reported farming to be their major lifetime occupation.

Also, those who worked in professional or semi-professional capacities

tended to have a significantly greater number of home improvement items than those who worked in skilled or semi-skilled jobs or those who were farmers.

Five independent variables, then (i.e., education of the female, place where the female was reared, marital status, income of the household head, and major lifetime occupation of the elderly male of the household), accounted for approximately 31 percent of the variation in levels of living of the households surveyed. Three other variables (i.e., family income, place where the male was reared, education of the male) were also significantly related to levels of living. However, they did not appreciably add to the percent of the variation accounted for in levels of living. All ll independent variables accounted for 32.6 percent of the variation in levels of living of the elderly Hamblen County residents surveyed.

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