

미국 노인층의 자산 상속 계획
- 유언장 준비를 중심으로 -
Estate Planning among the U.S. Elderly
- Focusing on Wills -

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<Abstract>

The purpose of this study was to investigate older people's planning for estate distribution by examining the factors associated with their will-holding status. This study used data from the 1994 Assets and Health Dynamics among the Oldest Old (AHEAD) Survey, Wave One. The objectives of this study were (a) to establish profiles of older people who have a written will and to compare their financial portfolios across will-holding status; (b) to identify factors that influence the decision to make a will, and (c) to draw implications for family economists, financial educators, planners, and policy makers.

The results suggested that a household's financial resources (i.e., liquid and illiquid assets, housing equity, and household income) positively influence the probability of having a will. Older people who resided in a community property state and who were in poor health were less likely to be will-holders than their counterparts, holding financial resources and other variables constant. Demographic characteristics such as age, education, and race, and behavioral characteristic also were significant determinants of the likelihood of having a will. Volunteer participation and charitable contribution, which are proxies for altruism, increased the likelihood of having a will. The probability of having a will also was higher among those who had life insurance

and had given inter-vivos gifts of more than \$5,000 to their children or grandchildren in the past 10 years. On the other hand, the likelihood of having a will declined with increasing number of biological children.

From the findings, implications for financial planners and educators were suggested along with directions for future research.

본 연구의 목적은 미국 노인층을 중심으로 자산 분배 계획(estate planning)의 한 형태인 유언장 작성 현황 및 유언장 준비에 영향을 미치는 요인들을 살펴보는 것이다. 이를 위하여 미시간 대학 Survey Research Center에서 조사하고 National Institute on Aging에서 지원한 1994년 미국 노인층의 자산과 건강 역동성에 관한 조사(Assets and Health Dynamics Among the Oldest Old) Wave 1을 이용하였으며, 조사대상자는 70세 이상의 5,365 노인가구이다. 본 연구의 구체적인 목표는 (1) 유언장을 준비한 노인들의 profile을 작성하고, 유언장 준비 여부별 노인들의 financial portfolio에 어떤 차이가 있는지를 비교하고, (2) 유언장 작성과 관련된 여러 요인들을 조사하며, (3) 본 결과를 바탕으로 가정경제학자 및 가계재무상담자에게 시사점을 제시하는 것이다.

주요 결과는 (1) 자산 분배 계획(유언장 준비, 증여, 종신보험 가입등) 정도는 노인층들에게서 조차 낮은 것으로 나타났다. (2) 나이가 많으며, 부유하고, 교육수준이 높으며, 백인이고, 건강한 노인들이 그렇지 않은 노인들보다 유언장 준비를 할 확률이 높았으며, (3) 이타심(altruism)의 proxy 변수인 자선봉사 활동 참여와 기부여부도 유언장 준비에 긍정적인 영향을 미치는 것으로 나타났으며, (4) 재무 advisor가 있고, 자녀수가 적은 노인들이 그렇지 않은 노인들에 비해 유언장을 준비할 가능성이 높았다. (5) 그리고, 종신보험에 가입했거나, 지난 10년간 자녀에게 증여를 한 노인들이 그렇지 않은 노인들에 비해 유언장을 준비할 확률이 낮게 나타났다. 조사 결과를 바탕으로 가계 재무 상담자 및 후속 연구를 위한 제언들이 제시되었다.

주제어(Key Words): 자산 분배 계획(Estate planning), 유언장(Will), 노인(Elderly), 애타적 상속이론(Altruistic Bequest Theory), 미국 노인층의 자산과 건강역동성에 관한 조사(AHEAD)

I. Introduction

The number of elderly in the U.S. population has increased continuously over the last two decades. The proportion of older people in the U.S. who are aged 65 and over was 11.3% in 1980 and 12.5% in 1990, and that proportion is projected to be 18.5% in 2025(U.S. Bureau of the Census, 1999). This trend will be accelerated as baby boomers, who comprised one-third of the American population in 1990, grow older.

As a group, the elderly population controls substantial amounts of wealth. Individuals over 65 years of age hold approximately 32% of all family net worth in the U.S.(U.S. Bureau of the Census, 1999). The rising values of real estate, pension plans, and retirement plans have contributed to the

enhanced economic well-being of older people. As a consequence, older people are increasingly interested in conserving wealth during their lifetimes and arranging for its effective transfer when they die. Bequests and inter-vivos gifts are two major vehicles to transfer wealth. Many researchers and policy makers have documented the importance of bequests as a major tool for transferring wealth. Bequests are recognized as an important mechanism of wealth redistribution or "insurance" among family members(Becker, 1974; Cox & Raines, 1985; Morgan, 1983). Bequests also play an important role by redistributing wealth and welfare in society in the form of estate and inheritance taxes.

Recent studies estimated that baby boomers will inherit an estimated \$10 trillion to \$41 trillion over the next 20 years, and an estimated \$100 billion in

estate taxes will be paid over the next five years (Chatzky, 1998; Kapoor, Dlabay, & Hughes, 1999; Melton, 2000). However, parents of baby boomers and baby boomers themselves are largely unprepared for the orderly transfer of wealth (Chatzky, 1998; Crenshaw, 1996; Melton, 2000).

Types of bequests might be categorized as either planned or accidental bequests (Smith, 1997). Planned bequests involve optimal estate planning, considering the needs and resources of bequest givers and beneficiaries, and the opportunity of tax savings. A legal written will is a basic tool of estate planning that offers benefits before and after death (Kapoor et al., 1999). However, over 60% of Americans die without a will (Garman & Fogue, 1997; Runde & Zischang, 1994), and some studies estimate that as many as one-half to two-thirds of elderly Americans do not have a will (Ferraro, 1990; Rossi & Rossi, 1990).

A will is a legal mechanism for (a) distributing assets according to the wishes of the deceased, the needs of family members, and the needs of significant others; and (b) minimizing taxes on the distributed property. Having a written will, therefore, minimizes conflict among family members and allows a clear and orderly distribution of wealth. Possible alteration of intestate distribution processes and the desire for faster, cheaper probate procedures are other motives for making a will (Sussman, Cates, & Smith, 1970).

The importance of having a will as basic tool of estate planning suggest a strong need to examine why the elderly do not have a will and how other financial asset holdings affect the preparation of a will. Although the aging population and their bequest behavior have received substantial attention from academia, financial planners, and

policy makers, few studies have been conducted on older people's planned bequest behavior through a written will.

Therefore, specific objectives of this study are: (a) to establish profiles of older people who have written wills and to compare their financial portfolios by will-holding status; (b) to develop a conceptual framework that identifies the factors that influence the decision to make a will, and to estimate the size and the direction of the effects of those factors.

This research will contribute to the knowledge of estate planning and planned bequest behavior of older people. First, a better understanding of the bequest behaviors of older people which interact with other financial asset holdings and other aspects of family life will shed light on elderly households' consumption, savings, and wealth redistribution among family members and to society. Second, this research will increase awareness of the importance of having a will among financial educators and legal practitioners. This research may be used as the point of departure for developing more effective educational materials and programs regarding making wills and the process of bequeathing one's estate. Furthermore, the findings of this study will be useful to understand bequest behavior of Korean elderly in the sense that demographic and lifestyle trend in Korea become similar to that of U.S.

II. Review of Literature

1. Life-Cycle-Permanent-Income Theory

Life-cycle income hypothesis (Ando & Modigliani, 1963; Modigliani & Brumberg, 1954) and

permanent income hypothesis(Friedman, 1957) have been widely used as important theories in explaining household consumption and saving behavior since the 1950s.

The traditional versions of life-cycle and permanent income hypotheses also assume that individuals have perfect foresight about the future. These two approaches, however, lead to opposite predictions of bequest behavior. These two hypotheses were combined into life-cycle-permanent-income hypothesis(LCPIH) by Deaton (1992) to incorporate precautionary and bequest saving motives by relaxing the certainty equivalence assumption. The LCPIH suggests that age-wealth profiles might not be hump-shaped, but rather depicts a rising trend in early and middle life that levels out in old age, due to desire to leave bequests and precautionary savings.

Bequest saving motives has been documented by previous studies(Bernheim, 1991; Kotlikoff & Summers, 1981; Laitner & Juster, 1996). Kotlikoff and Summers(1981) found that intergenerational transfers explain about four-fifths of U.S. wealth accumulation. Bernheim(1991) provided evidence that a significant aspect of saving is attributed to the bequest motive and people prefer having wealth in bequeathable form(e.g., financial assets) to a non-bequeathable form(e.g., annuities).

The LCPIH depicts a more accurate and applicable theoretical background for studying bequest motive and behavior than either the life-cycle income hypothesis or permanent income hypothesis.

2. Altruistic Bequest Motive Theory

Altruistic bequest theory explains that parents'

utility is determined not only by their own consumption but also by the wealth or resources of their offspring. That is, parents maximize their lifetime utility and gain satisfaction by increasing the economic well-being of their children through leaving bequests(Becker, 1974; Becker & Tomes, 1979; Menchik & David, 1983; Tomes, 1981).

The altruistic model of bequest was originated by Becker(1974) where economic theory was used to analyze interactions between members of the same family or persons with different characteristics. According to his theoretical model of bequest behavior, family members are motivated to maximize not their own individual income but the total family income because they are altruistic toward each other. They share a same family utility function which makes the redistribution of income among them possible without detracting from the well-being of any family members. Becker(1974) extended an altruistic model of wealth transfer by including charitable transfers which are motivated by the desire to improve the well-being of unrelated persons.

3. Previous studies on wills

Simon, Fellow, & Rau(1982) conducted a telephone survey of 750 people randomly selected from the files of the National Family Opinion Panels residing in Alabama, California, Massachusetts, Ohio, and Texas. Chi-square tests indicated that the will-holder group were older, better educated, in higher income brackets, and had larger estates than the non-holders. Respondents who had white collar or professional jobs, had no minor children, and resided in Ohio were more likely to have wills than those who had blue collar jobs, had minor children,

and resided in other states.

In a descriptive analysis of involvement with and knowledge about estate planning, Edwards (1991) reported a lack of knowledge about estate planning and low level of involvement with it among a sample of 35 Utah men and 35 women in 1985 and 1986. The percentages of will-holders among women and men were 37.8% and 35.2%, respectively. About 4% of the women set up trusts compared to 12.7% of the men. The proportion of men and women who had life insurance policies were 80.3% and 59.9%, respectively. Even though the actual level of preparation for estate planning was low, the respondents still considered estate planning as an important part of comprehensive financial planning.

Schwartz(1993) profiled will-holders using the sample of 319 wills probated in Providence, Rhode Island in 1985. In this study, the contents of probated wills were qualitatively analyzed. Sixty two percent of the testators were female and 60% of testators owned at least one house or residential property. The range of estate values was between \$1,000 and more than \$21 million. The estimated median and mean estate values were \$69,000 and \$124,000, respectively.

Using a life course perspective, Rossi and Rossi (1990) examined parent-child relations and support beyond the death of the parents, focusing on testators and beneficiaries of written wills and life insurance policies. The sample was 1,393 adults over 18 years old randomly drawn from the Boston standard metropolitan area. Having a written will was very closely correlated to the age of the respondents. The percentage of will holders increased with age, and approximately 60% of respondents in their 60s had a will. Descriptive analysis showed that the widowed were more likely to have written wills than were the married. Having

a written will was not prevalent among those who were separated, divorced or never married.

Using data from one experimental module of the Asset and Health Dynamics among the Oldest Old(AHEAD) survey, wave one, Goetting(1996) investigated the probability of leaving a financial bequest and having a will among 521 elderly. The model of probability of having a will was estimated using six hierarchical models of logistic regression analysis. Race, education, and wealth were significant in all six hierarchical models. Having higher education and greater wealth increased the probability of having a will. In three models, the elderly who were older and had lower levels of difficulty with IADL were more likely to have wills than those who were younger and felt greater difficulty with IADL.

This study, however, included only parental characteristics as explanatory variables in the model. Family-related variables or children's characteristics were disregarded. The exclusion of relevant variables might lead to biased estimated coefficients assuming that these omitted relevant variables and the included variables are correlated. Therefore, children's characteristic and family-related, and altruism-related variables need to be incorporated into the model to generate unbiased and consistent estimation results.

Existing research on the decision to have a will, however, is limited in several ways. Previous studies on the characteristics of will-holders either used small nonrandom samples in specific geographical areas, or they used only descriptive or bivariate analytical techniques(e.g., Edwards, 1991; O'Connor, 1996; Rossi & Rossi, 1990; Schwartz, 1993; Simon et al., 1982). Previous studies also are limited because they used probated wills(e.g., Engler-Bowles & Kart,

1983; Schwartz, 1993, 1996), which reveal wealth transfers among wealthy populations (Davies, 1996; McGarry, 1997). Therefore, it is difficult to generalize the results of previous studies to the total U.S. population. Additionally, wills themselves often do not contain other relevant demographic, economic, and family structure information that are important to consider in studying bequest behavior (Engler-Bowles & Kart, 1983).

In order to have a better understanding of an older person's planned bequests through a will, a systematic and comprehensive investigation of the decision to have a will is necessary. In addition, appropriate theories and modeling need to be utilized and developed to make a more precise evaluation of the impact of related factors. To date, no comprehensive research investigating the transfer of assets with a theoretical framework has been conducted. One reason, is data limitation. This study uses data from the Assets and Health Dynamics among the Oldest Old (AHEAD) survey, Wave one. It is the only existing source of national data containing information on written will holding and beneficiary types included in a will. Also, the AHEAD survey uses a sample of older people over 70 years old, which is a desirable population group for studying bequest behavior. This data set provides an opportunity to generate additional knowledge and to help fill a gap in the knowledge of bequest behavior and estate planning.

III. Methodology

1. Theoretical Model of Altruistic Bequests

The theoretical framework of this study is based

on the assumption that older people maximize their utility from their heir's economic well-being, charitable bequests as well as their own consumption. The conventional neoclassical economic model based on altruistic bequest theory is developed because this model presents economic rational of bequest behavior.

In a simple model of utility maximization, an older person's utility is determined by his/her own consumption (C), economic well-being of heirs (W_h) (e.g., spouse, child, grandchild), and charitable bequests (CB). An older person attempts to maximize utility from C, W_h , and CB subject to income and time constraints. His/her utility function is assumed to be strictly concave (i.e., the combination of C, W_h , CB is preferred to C, W_h , or to CB only) and twice differentiable, and it is specified as follows.

$$U = U(C, W_h, CB; S_1) \quad (1.1)$$

Where, U = Amount of satisfaction gained from a particular combination of (C, W_h , CB) under given preference shifters,

C = An older person's own consumption,
 W_h = Heir's economic well-being ($h=1, 2, \dots, n$),
 CB = Charitable bequests, and
 S_1 = Preference shifters of an older person.

Maximizing utility by combining a budget constraints generates an indirect utility functions as follows.

$$V = v(P_C, P_B, P_{CB}, I, W, H_i; S_1, S_{2i}) \quad (1.2)$$

An older person's utility becomes a function of the price of his or her own consumption (P_C), the price of bequests to heirs (P_B), the price of charitable bequests (P_{CB}), the income (I) and wealth (W) of an older person, and the heir's income (H_i)

given exogenous preference and productivity shifters. The optimal level of utility obtainable will increase with income (I) and wealth (W) of an older person, income of heirs (H_i); it will decrease with rising of other prices (P_C, P_B, P_{CB}). It is homogeneous of degree zero in income and prices, which means that if all prices and income were doubled, the optimal quantities demanded would remain unchanged.

2. Data and Sample

The data for this study are drawn from the first wave of Assets and Health Dynamics among the Oldest Old(AHEAD) survey. It was conducted by the Survey Research Center at the University of Michigan and funded by the National Institute on Aging. It is designed to provide policy makers with current information regarding the impact and interrelationships of changes in health, financial, and family domains relative to older Americans.

3. Measurement of Variables and Hypotheses

1) Dependent Variables

For the analysis of estimating the likelihood of having a written will, the dependent variable is a discrete choice indicating whether or not a respondent has a written will.

2) Independent Variables

The independent variables are divided into eight categories based on a theoretical model. Financial resource variables are included to measure the income (I) and wealth (W) of an older person. The health status, a taxable estate, and residence in a

community property state are included to examine the effect of price (P_C, P_B, P_{CB}). Five categories of preference shifters (S_1) are included in an empirical model: demographic variables, behavioral characteristic, altruism factors, other estate planning, and beneficiary characteristics. Refer to <Table 1> for the detailed measurement of the variables and for the hypothesized sign.

4. Model Specification

When individuals make a decision to have a will, they have two choices: having a will, and not having a will($j = 1, 2$). Individuals are assumed to choose alternatives that yield higher utility. That is, individuals would have a will if the derived utility from having a will is greater than utility derived from not having a will. Here, $V_j(j = 1, 2)$ represents the utility derived from having a will and not having a will, respectively. The utility of each alternative is assumed to be composed of deterministic and stochastic portions (random error terms), and can be specified for each individual, i , as follows:

$$V_{ij} = \beta_j X_i + \varepsilon_{ij} \quad (4.1)$$

Where, β_j : A vector of coefficients relating the explanatory variables to the valuation of alternative j ,

X_i : A vector of explanatory variables (i.e., financial resources, price-related factors, demographic variables, behavioral characteristic, altruism-related factors, other estate planning tools, and beneficiary characteristics), and

ε_{ij} : Random error term.

$P_1 = \text{Prob}(A; V_{ij})$

<Table 1> Measurement of Variables & Hypothesized sign on the Decision to Have a Will

Variables	Measurement	Hypothesized Sign
Financial Resources		
Liquid assets (\$)	Sum of the balances in checking and saving accounts, CDs, saving bonds, Treasury bills and money market funds	+
Illiquid assets (\$)	Market value of trusts, stocks, mutual funds, bonds, IRA, Keogh, vehicles, business equity, annuities, real estate and land-associated liabilities	+
Housing equity (\$)	\$ value of home and land - mortgage and mortgage related debt	+
Total household income (\$)	Total annual family income before tax	+
Price-Related Factors		
Had a taxable estate	1 if size of estate (liquid + illiquid + housing equity) is more than \$600,000 (\$1.2 million for a couple), 0 if otherwise	+
Living in a community property state	1 if resided in a community property state, 0 if otherwise	-
Self-reported health status	1 if health status is excellent or very good, 0 if otherwise	+
Excellent/very good	1 if health status is good, 0 if otherwise	+
Good(Fair/poor) ^a		
Preference Shifters		
Demographic Variables		
Age		
75-79	1 if age of the respondent is 75-79, 0 if otherwise	+
80 and over(Under 75) ^a	1 if age of the respondent is over 80, 0 if otherwise	+
Education		
High school graduates	1 if completed high school, 0 if otherwise	+
College and higher (Less than high school) ^a	1 if had college education or higher, 0 if otherwise	+
Married	1 if married, 0 if otherwise	+
Race		
Black	1 if Black, 0 if otherwise	-
Hispanic	1 if Hispanic, 0 if otherwise	-
Other(White) ^a	1 if Asian or "Others", 0 if otherwise	-
Behavioral Characteristic		
Had a financial advisor	1 if had a financial advisor, 0 if otherwise	+
Altruism-Related Factors		
Volunteer participation	1 if participated in volunteer work totaling more than 100 hours for religious or other charitable organization in the past 12 months, 0 if otherwise	+
Made a charitable contribution	1 if donated more than \$500 to religious or charitable organization in previous year, 0 if otherwise	+
Other Estate Planning Tools		
Given an inter-vivos gift	1 if gave financial help including education of more than \$5,000 to children (grandchildren) in past 10 years, 0 if otherwise	?
Trust	1 if put any assets into a trust, 0 if otherwise	?
Life Insurance	1 if had any life insurance, 0 if otherwise	?
Beneficiary Characteristics		
Presence of biological children	1 if had biological children, 0 if otherwise	+
# of biological children	Total number of biological children	-

Note. ^a reference category

Where, P_1 : The probability of having a will on condition of V_{ij} , and

A: Binary response, will-holding status (yes/no).

5. Analysis

To compare the characteristics of respondents and their financial portfolios by will-holding status, chi-square and t-test were used. The dependent variable for the model of the decision to have a will is discrete; 1 if had a will, 0 if otherwise. Therefore, this study uses the logit model for the analyses because the use of linear function leads to biased and inconsistent estimates of the coefficients.

IV. Results and Discussion

1 Sample Characteristics

<Table 2> presents the profiles of the will-holders and non-holders. About 66% of the total sample had written wills ($N=3,523$), whereas about 34% of the sample did not ($N=1,842$).

Will-holders had higher mean and median values of financial resources than non-holders. The mean values of wealth and income were much higher than the median, which means that a large proportion of households were concentrated at the low end of the distribution. The median value of illiquid assets was \$20,000 for will-holders, whereas non-holders held only \$2,000 in illiquid assets. The median values of total household income for will-holders and non-will holders were \$18,000 and \$9,000, respectively. Similar patterns can be observed in liquid assets and housing equity.

Almost four percent of will-holders had a taxable estate, compared to only one percent of non-holders. More non-holders resided in community property states (26.5% vs. 33.3%) and more will-holders (40%) than non-holders (27%) reported their health status to be excellent or good.

Will-holders were more educated than non-holders. More married elderly (46%) had written wills than did non-married elderly (33.4%). The proportion of White was much higher in the will-holder group (94.6%) than in the non-holder group (69.6%). About 18% of will-holders had a financial advisor, whereas only 6.6% of non-holders did. Will-holders were more involved in volunteer work (16.9% vs. 8.5%) and monetary charitable contributions (41.1% vs. 18.2%) than non-holders. More will-holders (85.2%) had biological children than did non-holders (82.9%), but the average number of biological children was lower for will-holders (2.46) than for non-holders (3.22).

Other estate planning tools that include an inter-vivos gift, trust, life insurance (term or whole), or deed of title (to house) represented a higher percentage of will-holders than non-holders. Will-holders also were more involved in inter-vivos gift giving (24.9% vs. 10.6%).

2. Comparison of Financial Portfolios by Will-Holding Status

<Table 3> further divides asset holdings into more specific categories to compare older people's financial portfolios by their will-holding status. The median and mean values are reported for each financial asset category. Overall, compared to non-holders, will-holders had higher median and mean values of liquid assets, housing equity, net worth,

<Table 2> Summary of Descriptive Statistics by Will-Holding Status(Weighted)

Variables	Holders (N=3,523)	Non-holders (N=1,842)	
Frequencies and Percentage(%)			Chi-square
Price-related factors			
Had a taxable estate	132 (3.8)	19 (1.0)	43.34***
Living in a community property state	934 (26.5)	613 (33.3)	22.91***
Health status			
Excellent/very good	1,417 (40.2)	498 (27.1)	157.59***
Good	1,111 (31.5)	566 (30.7)	
Fair/poor	954 (28.2)	778 (42.2)	
Demographic variables			
Age			4.84
Under 75	984 (27.9)	565 (30.7)	
75-79	1,149 (32.6)	547 (29.7)	
Over 80	1,390 (39.5)	730 (39.6)	
Education			410.89***
Less than high school	1,121 (31.8)	1,036 (56.2)	
High school	1,171 (33.2)	488 (26.5)	
College and higher	1,231 (34.9)	319 (17.3)	
Married	1,621 (46.0)	615 (33.4)	97.39***
Race			899.40***
White	3,334 (94.6)	1,282 (69.6)	
Black	104 (3.0)	285 (15.5)	
Hispanic	61 (1.7)	236 (12.8)	
Other	24 (0.7)	39 (2.1)	
Behavioral characteristic			
Had a financial advisor	629 (17.9)	122 (6.6)	137.26***
Altruism-related factors			
Volunteer participation	597 (16.9)	157 (8.5)	76.56***
Made a charitable contribution	1,447 (41.1)	336 (18.2)	335.54***
Other estate planning tools			
Given an inter-vivos gift	877 (24.9)	195 (10.6)	183.31***
Trust	407 (11.5)	80 (4.3)	107.63***
Life insurance	2,131 (60.5)	888 (48.2)	47.92***
Term life insurance	1,217 (34.5)	589 (32.0)	0.00
Whole life insurance	985 (27.9)	301 (16.4)	102.19***
Deed of title	144 (4.1)	73 (3.9)	0.50
Beneficiary characteristics			
Presence of biological children	3,001 (85.2)	1,527 (82.9)	4.90*
Means and Standard Deviations			t-statistics
Financial resources			
Liquid assets(\$)	34,910 (73,905) 8,200 ^a	12,793 (35,124) 209 ^a	16.85***
Illiquid assets(\$)	169,846 (504,437) 20,000	37,118 (122,504) 2,000	15.56***
Housing equity(\$)	77,744 (148,917) 50,000	32,676 (70,754) 0	16.64***

<Table 2> Continue

Variables	Holders (N=3,523)	Non-holders (N=1,842)	
Total household income(\$)	26,169 (33,871) 18,000	13,967 (13,636) 9,000	19.47***
Beneficiary characteristics			
Number of biological children	2.46 (1.96)	3.22 (2.90)	-11.52***

Note. ^a represents median values.

*p<.05. **p<.01. ***p<.001.

<Table 3> Comparison of Financial Portfolios by Will-Holding Status(Weighted)

Financial Resources	Holders(N=3,523)		Non-holders(N=1,842)		Total(N=5,365)	
	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Liquid assets(\$)						
Checking/savings, and/or Money market funds***	23,240 (55,119) 5,000 ^a		9,000 (27,649) 200 ^a		19,048 (49,100) 2,500 ^a	
CDs, saving bonds, and/or T-bills***	11,670 (43,125) 0		3,794 (18,358) 0		9,352 (37,740) 0	
Illiquid assets(\$)						
Real estate***	30,522 (164,671) 0		8,940 (43,876) 0		24,170 (140,700) 0	
Vehicles***	9,106 (48,052) 4,000		3,745 (12,043) 5		7,528 (40,962) 2,000	
Business***	9,046 (64,573) 0		2,337 (34,715) 0		7,071 (57,498) 0	
IRA, Keogh***	11,640 (46,427) 0		3,542 (23,965) 0		9,257 (41,274) 0	
Stock, and/or Mutual Funds***	36,231 (227,984) 0		4,010 (27,030) 0		26,747 (192,628) 0	
Bonds***	8,006 (57,640) 0		938 (17,292) 0		5,925 (49,423) 0	
Trusts***	53,245 (245,720) 0		9,766 (64,154) 0		39,721 (205,053) 0	
Term life insurance***	3,021 (13,616) 0		1,650 (6,814) 0		2,617 (12,036) 0	
Whole life insurance***	6,251 (31,789) 0		1,746 (9,361) 0		4,925 (27,259) 0	
Other assets***	3,687 (19,460) 0		1,399 (10,687) 0		3,013 (17,375) 0	
Housing equity (\$)**	77,744 (148,917) 50,000		32,676 (70,754) 0		64,479 (132,448) 35,000	
Net worth (\$)**	233,138 (471,756) 114,000		77,113 (150,391) 16,150		169,160 (391,574) 77,000	
Total household income (\$)**	26,169 (33,871) 18,000		13,967 (13,636) 9,000		22,578 (29,918) 14,090	

Note. ^a represents median values.

***p<.001 in t test.

and household income. However, the median values for subcategories of illiquid assets were much smaller(zero) than the means, regardless of will-holding status, reflecting that illiquid assets are concentrated among the smaller number of wealthy older people.

<Table 4> reports the fraction of the respondents who hold each financial asset. Further, median and mean value of assets owned by these sample elderly are calculated. Overall, compared to non-holders, will-holders held mixed portfolios of assets and had higher levels of median and mean values for the majority of asset categories. Business and "other assets", however, reveal different patterns. The proportion of business asset owners was five times higher for will-holders(5.5%) than for non-holders(1.1%), although median value was higher for non-holders(\$32,500 vs. \$42,500). Mean values of

"other assets" were insignificant between the two groups(\$26,287 vs. \$24,332) despite of big differences in ownership(13.1% vs. 4.3%). These suggest that there might be interaction between the type of assets people own and the existence of a will.

This study showed little difference between the two groups in ownership of term life insurance. A similar percentage of each group(34.5% vs. 32.0%) owned term life insurance.

While there is high correlation between presence of a will and level of income or wealth, there also exists considerable heterogeneity in presence of a will among households with similar amounts of financial resources. Although the level of financial resources is likely an important reason why older people differ in preparing a will, a significant number of older people with high levels of financial resources do not have a will.

<Table 4> Fraction of Respondents with Financial Resources by Will-Holding Status(Weighted)

Financial Resources	Holders % hold	Non-holders % hold	Total % hold
Liquid assets			
Checking/savings, and/or Money market funds***	83.0	57.9	
CDs, saving bonds, and/or T-bills***	27.2	9.9	21.2
Illiquid assets			
Real estate***	23.0	8.9	18.2
Vehicles	99.9	99.9	99.9
Business***	5.5	1.1	4.0
IRA, Keogh***	19.8	6.4	15.2
Stock, and/or Mutual Funds***	26.3	6.4	19.5
Bonds***	7.7	1.6	5.6
Trusts***	11.5	4.3	9.1
Term life insurance	34.5	32.0	33.7
Whole life insurance***	27.9	16.4	24.0
Other assets***	13.1	4.3	10.1

Note. ***p<.001 in chi-square test.

3. Results of the Logit Analysis for Having a Written Will

The estimated coefficients for having a written will model, along with marginal effects, are presented in <Table 5>. Marginal effects explain the changes in probability of having a will as the magnitude of the independent variables changes.

As hypothesized, older people with higher liquid and illiquid assets, housing equity, and total household income were more likely to have a written will than were those with lower levels of those assets. As housing equity increased by \$100,000, the probability of having a will increased by 0.13, other things being equal. As suggested by altruistic bequest theory, asset holdings and household income are important predictors of the likelihood of leaving a bequest, which may affect

<Table 5> The Results of the Logit Analysis of the Probability of Having a Written Will

Variables	Coefficients (Standard errors)	Marginal Effects
Financial resources		
Liquid assets	4.52E-6 (1.06E-6)***	8.91E-7
Illiquid assets	1.46E-6 (4.13E-7)***	2.88E-7
Housing equity	6.51E-6 (7.12E-7)***	1.28E-6
Total household income	9.27E-6 (3.27E-6)**	1.83E-6
Price-related factors		
Had a taxable estate	-0.58 (0.41)	-0.126
Living in a community property state	-0.34 (0.08)***	-0.070
Health status		
Excellent/very good	0.16 (0.09)*	0.032
Good(Fair/poor) ^a	0.11 (0.08)	0.021
Demographic variables		
Age		
75-79	0.31 (0.09)***	0.060
80 and over(Under 75) ^a	0.64 (0.09)***	0.123
Education		
High school graduates	0.21 (0.08)*	0.040
College and higher(Less than high school) ^a	0.33 (0.10)***	0.063
Married	0.14 (0.08)	0.027
Race		
Black	-1.55 (0.10)***	-0.356
Hispanic	-1.61 (0.16)***	-0.375
Other(White) ^a	-1.16 (0.28)***	-0.270
Behavioral characteristic		
Had a financial advisor	0.60 (0.13)***	0.106
Altruism-related factors		
Volunteer participation	0.39 (0.11)***	0.072
Made a charitable contribution	0.40 (0.09)***	0.076
Other estate planning tools		
Given an inter-vivos gift	0.27 (0.11)**	0.052
Trust	-0.29 (0.19)	-0.060
Life insurance	0.30 (0.07)***	0.059
Beneficiary characteristics		
Presence of biological children	0.15 (0.10)	0.030
Number of biological children	-0.06 (0.02)***	-0.013
Constant	-0.51 (0.14)***	
-2 Log Likelihood	5277.03	
Chi-Squared	1620.48***	
N	5365	

Note. ^a reference category

*p<.05. **p<.01. ***p<.001.

the decision to have a will. These findings suggest that *wealthy older people might be more encouraged to write a will to minimize estate or inheritance taxes, or to hand over a family business, or to make charitable bequests*(Goetting, 1996). On the other hand, the unwealthy are less apt to have a will because of minimal assets to transfer and the up-front legal fees incurred in writing a will.

Consistent with the hypothesis and the Simon et al.' study(1982), living in a community property state was negatively related to the likelihood of having a written will. As expected, health status was found to be another important predictor associated with having a will. Compared to those who were in fair or poor health, the respondents who were in either excellent or very good health were more likely to have a will. This result suggests that those who face or expect substantial health care expenditures due to their poor health is less able to leave a bequest than those are in good health(McGarry, 1997; Smith, 1997). Older people who are in poor health may save and conserve resources for their current and future health care needs and other emergencies, which in turn may discourage them from writing a will. The findings reported support the LCPIH that incorporates the existence of bequest and precautionary saving motives.

As age increased, so did the likelihood of having a will. Respondents aged 75-79 and aged 80 and over were more likely to be will-holders than were those aged under 75. As people get older, they consider bequests more seriously and start to plan for the transfer of their estate(McGarry, 1997; Smith, 1997).

As expected, education was confirmed as an

important factor in explaining the presence of a will. Older people who had a high school or college/post college education were more likely to have a written will than those with less than high school education, reflecting that less educated older people may not be aware of the importance of having a will, or that they might be overwhelmed by the task of writing a will.

Race was another significant factor in predicting the likelihood of having a will, holding other variables constant. Black, Hispanic, and other racial groups were less likely to be will-holders than were White. Being Hispanic or Black lowered the likelihood of having a will by 0.38 or 0.36, respectively, compared to being White. These findings reflect that historical and cultural disparities in economic and legal status among racial/ethnic groups(Goetting, 1996) cause great differences in the view of having a will or in the attitude toward writing a will. Differences in attitude toward dying, level of trust in the legal system, or trust in attorneys(Brown, 1989; Hemmons, 1995) might explain heterogeneity of writing a will, among the various racial groups.

Consistent with the hypothesis, having a financial advisor was positively associated with the likelihood of having a will. For the respondents with a financial advisor, the probability of having a will increased by 0.11 compared to those without a financial advisor, other factors being equal. This finding confirms an importance of advisors' role in their clients' estate planning(e.g., having a will).

Altruism factors had significant and positive effects on the likelihood of having a will, as expected. This reflects that those who are more altruistic about other people's well-being tend to prepare a will to bequeath their material wealth to

others(e.g., charity) as well as to family members. Or, these findings might imply that representatives of non-profit institutions, during the process of soliciting volunteer participants and charitable donors, inform and educate older people on the benefits of having a will, and bequeathing for charities.

Other estate planning vehicle measures were significant in explaining the likelihood of having a will. Those who had given more than \$5,000 in inter-vivos gifts to their children(or grandchildren) in the past 10 years, or who had purchased life insurance, were more likely to be will-holders. Considering ownership of life insurance as a strong bequest motive to provide for the well-being of their surviving spouse or offspring (Bernheim, 1991), these findings may explain that those who have strong bequest motives are more likely to have a will. Or, older people who have life insurance or have involved in inter-vivos gift tend to have a will because they are aware of the importance of having a will. These findings suggest that life insurance and inter-vivos giving behavior may not be substitutes for a will.

As hypothesized, the number of biological children was negatively associated with the likelihood of having a written will. As the number of biological children increased, the probability of having a will decreased. Although financial resources were controlled in this study, older parents with many children may have lower wealth due to human capital investment on children. Or, they already may have used a significant portion of their wealth in support of their children financially(e.g., through inter-vivos gifts); therefore they may feel less obligation to leave bequests. Alternatively, another explanation

of this finding is that respondents with many children may avoid estate planning due to potential disputes among children over distribution or due to the difficulty in splitting estates equally or equitably among children. According to Lochray(1992), some people avoid estate planning because they fear family arguments over particular assets assigned in a will.

V. Conclusion

The purpose of this study was to investigate older people's planning for estate distribution by examining the factors associated with their will-holding status. This study used data from the 1994 Assets and Health Dynamics among the Oldest Old(AHEAD) Survey, Wave One. The objectives of this study were (a) to establish profiles of older people who have a written will and compare their financial portfolios across will-holding status; (b) to identify factors that influence the decision to make a will, and (c) to draw implications for family economists, financial educators, planners, and policy makers.

This is the first study to present a comprehensive investigation of preparing for the orderly transfer of one's estate among older individuals by identifying the characteristics of will-holders. This study also developed a model based upon altruistic bequest theory, life-cycle-permanent-income hypothesis, and the findings of previous research to reflect the complexity of estate planning and bequest behavior. It provides additional information and contributes to knowledge of planned bequest behavior and estate

planning research.

The logit analysis of the decision to have a will model suggested that a household's financial resources(i.e., liquid and illiquid assets, housing equity, and household income) positively influence the probability of having a will. Older people who resided in a community property state and who were in poor health were less likely to be will-holders than their counterparts, holding financial resources and other variables constant. Demographic characteristics such as age, education, and race, and behavioral characteristic also were significant determinants of the likelihood of having a will. Volunteer participation and charitable contribution, which are proxies for altruism, increased the likelihood of having a will. The probability of having a will also was higher among those who had life insurance and had given inter-vivos gifts of more than \$5,000 to their children or grandchildren in the past 10 years. Alternatively, the likelihood of having a will declined as the number of biological children increased.

From the findings, implication for financial educators and future research are suggested. First, older people should be encouraged to understand the importance of estate planning as part of a way to *preserve their wealth and to secure their own and their family's financial well-being*. In this study, it was found that estate planning is not widely implemented as a significant aspect of financial management practices. Even though this study used an age group(i.e., people aged 70 or older) in which bequest decisions and plans for transferring assets at death already may have been made, it was found that about one-third of sample of elderly did not have a will. Writing a will

usually is not a pleasant task so failure to recognize its importance is rather common. Involvement with trusts and inter-vivos gifts was also very low. Though currently much estate planning information is available from community services, extension education programs, educational materials and programs are not necessarily designed for older people. Therefore, it is important to design educational materials and programs specifically for older individuals. These materials and programs should be designed to be easily accessible by older people.

This study revealed that those who were younger, less educated, Black, Hispanic, or another non-White racial group were less likely to have a will than those who were older, more educated, and White. In order to serve the needs of older people, financial educators and planners should develop a variety of strategies for older people with unique circumstances and distinct demographic characteristics. To achieve this purpose, it is essential to assess the various needs of older people with different characteristics when designing information about wills and estate planning. With this information, educational programs about wills and estate planning that meet the specific needs of the culturally diverse elderly population need to be developed.

The important role of financial educators or planners in advising and counseling older people in writing a will and preparing other elements of estate planning clearly was supported in this study. This finding indicates that those with a financial advisor are aware of the importance of having a will and estate planning, and are acquainted with implementation of those estate planning. They also may be more knowledgeable

about various ways of reducing their tax-burden than those without a financial advisor. Absence of financial advice or counseling may have contributed to the lack of knowledge about the importance of estate planning and the implementation of such actions. Therefore, it is essential to increase awareness of the importance of estate planning and knowledge about how to implement it for these disadvantaged elderly group. Appropriate use of media and effective educational programs through community service organizations and cooperative extension programs would help these older people who do not have a financial advisor.

This study repudiates the commonly held belief that one of the reasons why people do not have a will is that they have will substitutes, which may better serve their financial needs and objectives (Lochray, 1992). This study showed that most of the people, who do not have a will, do not have will substitutes either. This indicates that people do not prepare a will either because they do not understand the importance of estate planning as part of comprehensive financial planning or because they are not familiar with how to implement it. Financial educators and planners, hence, should inform clients of the risk of not having a will and of the advantages and disadvantages of will substitutes.

Finally, several imitations and implication for future research are followed. In this study, measures of wealth and income were reported by the respondent. Responses about income and wealth on surveys often are unreliable because people tend to underreport them, especially for those with higher levels of income and wealth (Schulz, 1995). Future studies need to be aware of

these measurement errors. This study also has limitations due to missing information in the data set. Information about the price of bequests(i.e., expected appreciation or discount rate of the transferred assets and estate tax rates) were unavailable. Two measures were used as proxies for the price of bequests: (a) whether or not an estate is taxable, and (b) whether or not a respondent resides in a community property state. It is unlikely that these price-related factors capture the real price effects adequately. Future research is recommended to examine in depth the effect of the price of bequests on the decision to have a will and on decisions regarding selection of specific beneficiaries. Lastly, it would be interesting to compare the findings of this study to that utilizing Korean elderly to find out any similarities and differences in estate planning between two countries.

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