

*Demographic Transition, Health Care and Social Security*

Edited by Wen-Shan Yang and Mei-Ling Lee

Sun Yat-Sen Institute for Social Sciences and Philosophy,

Book Series (37), pp. 283-319, Academia Sinica

February 1996, Taipei, Taiwan

## Life Insurance for Old Age Security? An Exploration of the Characteristics and Motivations of Insureds in Taiwan\*

Rose Maria Li\*\* Laura Duberstein Lindberg\*\*\*

Hui-Sheng Lin\*\*\*\*

### I. Introduction

The growth of the elderly population in Taiwan has been accompanied by social and economic changes that put pressure on traditional ways of providing for the elderly (Li, 1994; Sun, 1991; Chang and Ofstedal, 1991). A combination of an increasingly elderly population and decline in birth rate means that the greater

---

\* Paper presented at the Conference on Demographic Transition, Health Care and Social Security, Sun Yat-Sen Institute for Social Sciences and Philosophy, Academia Sinica, Taipei, Taiwan, Republic of China, May 23-25, 1994. This paper has benefited from discussion with Y. Grace Chang and Kuan-jeng Chen.

\*\* Health Scientist Administrator (Demographer), National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland, U. S. A.

\*\*\* Research Associate, The Urban Institute, Washington, D. C., U. S. A.

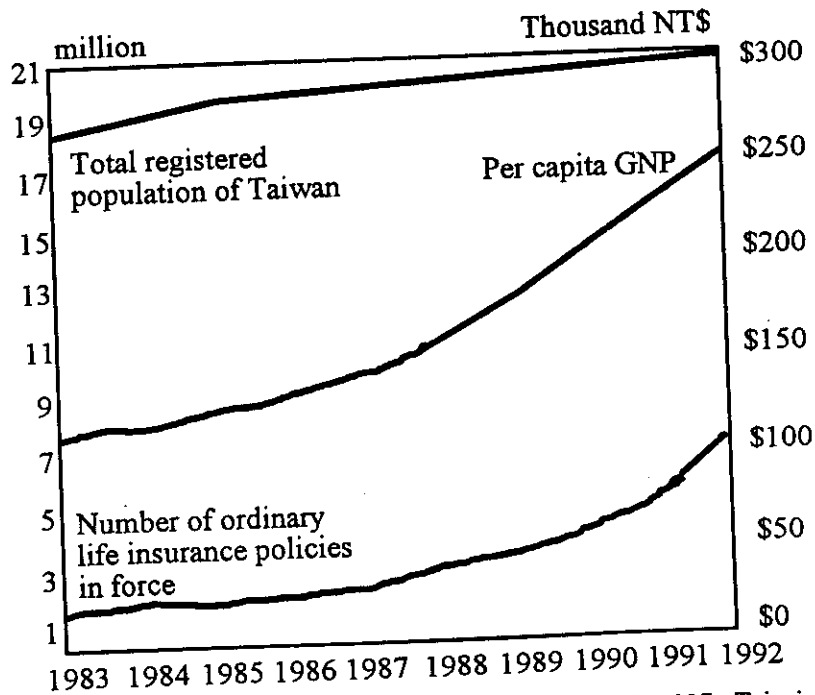
\*\*\*\* Chief, Research and Planning Division, Taiwan Provincial Institute of Family Planning, Taichung, Taiwan, R. O. C.

responsibility of caring for elderly members must be shared among fewer siblings. Rising female labor force participation has further constrained the availability of traditional caregivers. Yet, compared to western industrialized countries, far fewer non-familial mechanisms exist in Taiwan to provide for the economic, social and psychological well-being of the elderly. Perhaps in response to such social trends, the purchase of life insurance has become increasingly suggested as a means of ensuring old age security.<sup>1</sup>

The life insurance market in Taiwan has burgeoned, especially after the ROC government opened the market to U.S. insurers in 1987. The life insurance industry tends to grow in tandem with increasing wealth and population, as illustrated in Figure 1. Total life insurance premiums have risen from NT\$1.9 billion in 1973 to NT\$145 billion in premiums in 1990, making it the 16th largest market in the world (Ying, 1975; Schmidt, 1992). In the last decade, the amount of ordinary (non-group) life insurance in force has grown nearly eight-fold from NT\$782,149 million (1,698,884 policies) in 1983 to NT\$5,966,044 million (7,923,680 policies) in 1992 (Taipei Life Insurance Association, 1993, p. 84). The amount of group life insurance in force has also grown nearly eight-fold in value. In 1983, there were 2,522 group policies in force that covered 241,604 persons and were valued at NT\$47,564 million. By 1992, there were 36,569 group policies in force that covered 769,457 persons and were valued at NT\$372,580 million (Taipei Life Insurance Association, 1993: 85).

The growing life insurance market in Taiwan, as in other parts of Asia, mirrors a shift in cultural attitudes. Traditionally, it was considered unlucky to buy life insurance for fear of tempting fate.

Such frank admission of future mortality therefore was superstitiously avoided (Graham, 1977). Instead, people relied primarily on the extended family system for support. Recent increases in life insurance purchases suggest the weakening of these traditional attitudes and a growing emphasis on more formal mechanisms of support. Although the life insurance business in Taiwan has mushroomed in recent years, little has been published about the characteristics and motivations of those who purchase policies in Taiwan.



Source: Monthly Statistics of the Republic of China, No. 337; Taipei Life Insurance Association, 1993.

Figure 1: Increase in Population, Per Capita GNP, and Life Insurance in Force: Taiwan, 1983-1992

This study of life insurance among the elderly in Taiwan is motivated for a number of reasons. First, Taiwan is in a period of rapid economic growth and, as the dramatic aggregate trends in the purchase of life insurance suggest, cultural change. Studying who buys life insurance, and why they buy the insurance, increases our understanding of these ongoing economic and social changes. However, we must acknowledge that examining life insurance only among older individuals will limit the conclusions we can draw about such changes. The elderly form only a partial, albeit distinct, portion of those purchasing insurance. But better understanding of life insurance participation among the elderly is important for the practical reason of examining it as an example of formal mechanisms of care which may influence well-being in later years. In this paper, we use data from the 1991-92 Telephone Follow-up to the 1989 Survey of Health and Living Status of the Elderly in Taiwan to examine the characteristics and motivations of those who have ever purchased life insurance. We supplement this individual-level data with aggregate-level industry data to speculate on the importance of *guanxi* and *renqing* in the life insurance business.

## II. Life Insurance Industry in Taiwan

The life insurance market in Taiwan is controlled by an oligopoly of experienced players. For example, in 1991 Cathay Life Insurance Company held 49% of the market and Shin Kong 25%, while Aetna (the first U.S. insurer to operate in Taiwan) enjoyed about 75% of total U.S. insurance sales in Taiwan (Chan, 1992). At the end of 1992, there were 8 domestic and 10 foreign life insurance

companies in the Taiwan area, all of which are members of the Taipei Life Insurance Association (see Appendix I). The Association's Annual Reports and publications are perhaps the only available source of publicly-available data on the life insurance industry in Taiwan.

In the remainder of this paper, industry statistics are presented only for "ordinary" policies, i.e., the type of life insurance for which premiums are charged on an annual basis and are purchased by individuals from agents. The Taipei Life Insurance Association distinguishes between policies of "pure endowment," "endowment," and "insurance against death" which is more commonly referred to as "term" insurance. An endowment policy provides a payout to the beneficiary if the insured dies within a specified time, and provides a cash value to the insured if s/he survives. Whole life is an endowment policy that can be effective for the whole of one's life so long as premiums are paid. Term insurance covers only the risk of mortality; there is no savings component attached to it. Although group insurance policies also experienced rapid growth, they are not discussed in this paper since they account for less than 2.5% of total life insurance premium income, are usually issued without medical examination, are normally paid for by an employer and are usually only in force while with that employer (Lavine, 1993).

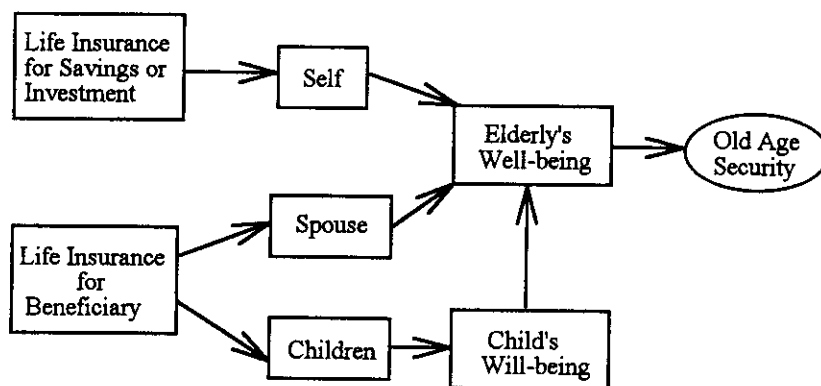
### III. Theoretical Perspectives

The extended family has traditionally been relied upon to buffet misfortune and assist with the provision of economic security in old age. (Cain, 1983). In his wealth flow model, Caldwell argues that

increased wealth and economic opportunities are expected to result in a reversal of wealth flows from parents to children, and an associated weakening of intergenerational family obligations. With greater economic development, functions of the family are assumed by new institutions (Freedman, 1971) with provision of economic security increasingly shifted to the larger community (Cowgill and Holmes, 1972). Research examining the extent of the integration between familial and nonfamilial support in Asia is emerging (e.g., Thornton and Lin, 1994; Hermalin, Ofstedal and Chang, 1992; DaVanzo and Chan, 1994). While much research on aging in Asia has focused on intergenerational transfers (e.g., Lee, Parish and Willis, 1994; Li, Xie and Lin, 1993; Tsuya and Martin, 1992) and living arrangements of the elderly (e.g., Andrews, et al., 1986; Casterline, et al., 1991) as obvious indicators of old age support and familial obligation, less attention has been given to the use of life insurance as an example of the integration between familial and nonfamilial support for old age security.

We hypothesize that life insurance offers both direct and indirect mechanisms for influencing the well-being of the elderly, and thus their old age security. The underlying premise is that individuals will maximize the likelihood that they will be cared for in old age. As Figure 2 shows, life insurance may be purchased as a savings or investment vehicle for oneself and/or as a means of providing resources to others when deceased. Savings offers a direct mechanism for influencing old age security, by improving the financial well-being of the elderly individual upon payment. Life insurance which benefits the future well-being of a spouse also can be considered a direct link to old-age security. Thus, both the

motivations of saving while alive, and care for spouse, represent a direct reliance on the formal market for influencing old age well-being.



**Figure 2: Hypothesized Relationship between Life Insurance Outcome and Old Age Security**

In contrast, benefits paid to children directly influence only the child's well-being. Yet in this case, life insurance may also indirectly offer old-age security if the transfer of resources to children improves the well-being of the elderly. The child's expectation of future financial payment may strengthen the sense of responsibility or obligation to care for a parent. This is referred to as a "strategic bequest motive" since the elderly purchase life insurance as a strategy for influencing their children's behavior.

If the purpose of life insurance is to directly, or indirectly, improve the well-being of the elderly, and thus provide some old-age security, then individuals with a stronger demand for old-age security should be more likely to purchase insurance. The strength of this demand will vary in relation to the potential risk of

inadequate familial care, since life insurance may offer a market substitute for care by children. Moreover, individuals with a stronger preference for the independence and autonomy offered by personal financial resources, as opposed to familial or informal resources, should also be more likely to purchase insurance.

Since life insurance purchase may be motivated by the demand for care in old-age, greater familial resources available to an individual should reduce their likelihood of purchasing insurance. In this case, the fewer the number of children the more likely an individual should be to purchase insurance. As Cain (1983) suggests in his landmark work, higher fertility offers a means of old age security since risk is spread across more children. We expect this relationship will vary with the gender composition of children. Most parents in Taiwan live with adult sons, not daughters (Freedman, et al., 1982; Thornton, et al., 1984). As in other Chinese societies, the cultural emphasis on son-provided care suggests that individuals without a son may feel a greater need to rely on formal sources of old-age security, and thus are hypothesized to be more likely to purchase insurance.

Although children can represent an insurance policy of sorts for parents in later years, it is also true that parents are concerned about safeguarding their children's well-being. As such, a parent may be more strongly motivated to purchase life insurance if there are more children who depend on the parent's support. Life insurance may be used as a strategic bequest, with future benefit promised to children to promote care in old age. In contrast to the previous reasoning, this suggests a positive association between number of children and the purchase of life insurance. This argument is also relevant with



respect to a spouse. On the one hand, having a spouse is an indication of an available resource of informal care, and so should be negatively related to having life insurance. However, individuals may be more likely to purchase life insurance as a means of security for their spouse upon being widowed. Because of these competing relationships, it is not evident *a priori* what the association between family and the purchase of life insurance should be.

It is also important to consider the implications of the fact that formal life insurance is a relatively new consideration in Taiwan. This suggests that individuals with a stronger orientation to the formal and more "modernized" economy should be more likely to purchase insurance. Reflecting this relationship, we hypothesize that younger and more educated individuals are more likely to purchase life insurance, as would persons with a greater preference for autonomy or independence. Additionally, greater income, which itself is an indication of an orientation towards savings, financial institutions etc., should also be positively associated with purchasing life insurance.

#### IV. Data and Methods

In 1991-92 a sample of Taiwan elderly were queried about whether they have any life insurance, (see Appendix II), as well as health insurance coverage, health status and living arrangements. The questions were part of a telephone follow-up of the 1989 baseline Survey of Health and Living Status of the Elderly in Taiwan conducted by the Taiwan Provincial Institute of Family Planning. Based on a national probability sample (N= 4,049) of the entire

elderly population aged 60 and over in 1989, the baseline survey provides unusually detailed information about the individual characteristics of the elderly, their children, and their main sources of support.<sup>2</sup> About 88% of the 1989 sample were followed up in 1992, with 3,223 coded as alive and 340 coded as dead. The status of 11 persons was uncertain and 475 failed to complete the interview.<sup>3</sup> The impact of those lost to follow-up on the overall representativeness of the data appears to be minor. The age, sex, and educational composition of the 1991-92 sample is virtually the same as in 1989, although there are slightly smaller proportions of Mainlanders and large-city residents included in the 1991-92 sample.<sup>4</sup> The data collected in 1991-92 on life insurance purchases can be linked to the 1989 baseline data to examine the characteristics of insureds.

Based on 3,034 valid responses among survivors in 1992, 401 (or 13.2 percent) reported ever having had a life insurance policy, 229 (7.5 percent) of which are currently insured. 189 respondents either did not respond or did not know if he or she was covered by life insurance. The reasons for purchasing life insurance were asked only of respondents who were currently covered by a life insurance policy. Information on the primary beneficiary was also collected.

Explanatory variables can be grouped into two categories: familial resources (marital status, number of living children, number of living sons); and socioeconomic resources (age, sex, education, place of birth, type of residence, income). Since ethnicity and place of birth are very similar, ethnicity was excluded from the analysis because there were relatively more missing responses. Respondents with missing values for any of the explanatory variables of interest in

later multivariate analyses were also dropped from bivariate tabulations so as to allow for greater comparability between the bivariate results and the net effects deriving from the multivariate analyses. We also examined distributions by familial and socioeconomic/demographic attributes for those who have ever purchased insurance (i.e., including in the sample those who no longer have insurance). The patterns of associations for those currently and ever having life insurance were similar and are therefore not shown.

Before we present the characteristics associated with life insurance purchase, we explore the relationship of the named primary beneficiary to the insured. We also examine the stated reasons for purchasing life insurance among those who are currently insured. We then employ logistic regression analysis to examine differentials in the likelihood of having life insurance.

## **V. Findings**

### **1. Beneficiaries of life insurance**

Life insurance benefits can be paid out for a number of reasons. Benefit payments can be initiated when a policy matures, the insured dies, the policy is surrendered or annulled by the insured (perhaps for its cash value), the policy is canceled by the insurer because of misrepresentation by the applicant, or as medical or disability payments.

**Table 1: Relationship of Beneficiary to Current Owner of Life Insurance**

Beneficiary	All	Currently Married	Not Currently Married	Have Children
Spouse	30.8	40.1	N/A	31.5
Children	33.5	25.6	58.2	34.2
Self	23.6	21.5	29.1	23.4
Other/don't know	12.3	12.8	10.9	10.8
Total	100%	100%	100%	100%
No. cases	227	172	55	222

Table 1 presents the distribution of reported beneficiaries, among those currently owning life insurance. Recall that only those who currently have life insurance were asked about the beneficiary. The first column shows the values for all individuals, while the latter columns limit the distributions according to specific familial forms. If an individual names their spouse as the main beneficiary of their life insurance, he or she presumably is providing for the future old-age security of the spouse. Indeed, spouses predominate over children as the named beneficiary among those currently married (and thus at risk of naming a spouse as beneficiary). Among those who are not married (predominately widowed), nearly 60 percent name their children as the beneficiary. If children are the beneficiary, this presumably may strengthen their children's sense of obligation to care for the elder parent through the promise of future life insurance proceeds. About one-quarter of individuals with insurance name themselves as beneficiary. This is the most direct form of old-age security, since the insurance is providing a means of savings and investment. Finally, about 12 percent either did not know who is listed as their beneficiary or listed someone other than self, spouse

or child(ren). This was slightly more common among women, especially those who are currently married, and may reflect a tendency for older women to be less involved in financial decisions than their spouses.

## 2. Reported motivations of insureds

Of those who reported having an active policy, multiple reasons were possible (Table 2): 45 percent considered life insurance as a saving or investment vehicle, and 22 percent viewed life insurance as a safeguard for the beneficiary, usually a spouse or children. What is remarkable is that 41 percent purchased the life insurance at least partly as a favor to the salesperson, and more than a quarter (27 percent) purchased life insurance *only* as a favor to the salesperson.

**Table 2: Reasons for Purchasing Life Insurance, among Those Who Currently Have an Active Policy (N = 227; Row Percentages in Bold)**

	Yes	No	Don't Know or NA
For saving or investment	102 <b>44.9</b>	120 <b>52.9</b>	5 <b>2.2</b>
Safeguard for beneficiary	50 <b>22.0</b>	170 <b>74.9</b>	7 <b>3.0</b>
As a favor to salesperson	92 <b>40.5</b>	127 <b>55.9</b>	8 <b>3.5</b>
Other	33 <b>14.5</b>	184 <b>81.1</b>	10 <b>3.9</b>

Note: Other reasons include in case of accidental injury or death.

## 3. Characteristics of insureds

Bivariate analyses of the survey data show that life insurance was owned disproportionately by those at younger ages (aged 60-64 in 1989), more educated, higher incomes (NT\$20,000+), married and with other than one living child<sup>5</sup> (Table 3). Although not

shown, males were more likely than females to have responded positively to having purchased life insurance at some time in their life; males account for 65 percent of those claiming life insurance coverage at some time. This is consistent with reports from a 1991 survey of insurance companies selling individual policies (Chan, 1992). Having a life insurance policy appeared to be independent of sex, place of birth (Taiwan, Mainland), or having a living son.

Although the preceding bivariate results provide a useful indication of the relative importance of familial and socio-demographic resources, they do not control for the presence of multiple explanatory variables. For example, because younger respondents tend to be more educated, part of the differences by education may also reflect age or cohort effects. In our multivariate analyses, we achieve statistical controls by simultaneously including various additive effects and interaction effects in a logistic regression to model the likelihood or log-odds of having life insurance. Since the dependent variable in both models is dichotomous, logistic regression is an appropriate statistical method. An odds-ratio greater than 1.0 means that the characteristic is associated with an increased likelihood of (ever) having insurance, as compared to the reference category; an odds-ratio less than 1.0 indicates a decreased likelihood.

Individuals with monthly income under NT\$20,000 are distinguished from those with greater income and those who did not report their income (about 13 percent). Since it is likely that the decision to purchase life insurance is influenced to a greater extent by the educational level of the husband rather than the wife, we created a "head-of-household" education variable composed of

Table 3: Factors Associated with Current Life Insurance Ownership

		Proportion with life insurance N = 227	1991-92 Total sample N=2,989
<b>FAMILIAL RESOURCES</b>			
<b>Marital Status</b>	Not currently married	5.7	972
$\chi^2=7.7, 1 \text{ d. f. } (p=0.006)$	Married	8.5	2,017
<b>Number of Living Children<sup>1</sup></b>	None	3.5	145
$\chi^2=18.8, 8 \text{ d. f. } (p=0.016)$	1	3.4	176
	2	7.1	240
	3	6.5	352
	4	6.9	448
	5	10.8	501
	6	8.5	483
	7	9.3	324
	8 or more	6.3	320
<b>Living Son(s)<sup>1</sup></b>	None	6.3	334
$\chi^2=0.9, 1 \text{ d. f. } (p=0.339)$	One or more	7.8	2,655
<b>DEMOGRAPHIC/SOCIOECONOMIC ATTRIBUTES</b>			
<b>Age in 1989</b>	60-64	13.2	1,134
$\chi^2=104.9, 3 \text{ d. f. } (p=0.000)$	65-69	7.2	879
	70-74	2.0	538
	75 and above	0.7	438
<b>Sex</b>	Female	7.1	1,289
$\chi^2=0.9, 1 \text{ d. f. } (p=0.337)$	Male	8.0	1,700
<b>Household Education<sup>2</sup></b>	Illiterate	4.0	794
$\chi^2=23.1, 2 \text{ d. f. } (p=0.000)$	Primary(1-6 years)/Can Read	8.2	1,496
	Jr/Sr/College(7-17 years)	10.4	699
<b>Total Monthly Income</b>	< NT\$20,000	6.3	2,132
$\chi^2=21.6, 2 \text{ d. f. } (p=0.000)$	NT\$20,000+	12.5	481
	Missing	8.5	376
<b>Place of Birth</b>	Taiwan <sup>3</sup>	7.9	2,362
$\chi^2=1.7, 1 \text{ d. f. } (p=0.196)$	Mainland China	6.4	627

Notes: <sup>1</sup> Responses of N/A for number of living children and number of living sons were coded as zero for never-married respondents.

<sup>2</sup> Household education is composed of respondent's education if the respondent is male and spouse's education if the respondent is female. If spouse's education was not stated for a female respondent, the respondent's own education served as a proxy.

<sup>3</sup> Includes 6 respondents with place of birth other than Taiwan or Mainland China.

respondent's education if the respondent is male and spouse's education if the respondent is female. If spouse's education was not stated for a female respondent, own education served as a proxy. Head-of-household education is a categorical variable with three levels: (1) illiterate; (2) primary (1-6 years/can read); (3) junior high or more. Age of respondent and number of living children were treated as continuous variables.<sup>6</sup> All other independent variables (if currently married, have at least one son, male, born in Mainland China, income exceeds NT\$20,000, income missing) were treated as categorical and are represented as dichotomous indicators in the regressions. We included an interaction effect for missing income and sex because we expect that women and men may have different reasons for not reporting income. Women may be less knowledgeable about financial matters whereas men may be more deliberate in failing to report income.

We hypothesized that there were competing factors driving the relationships between availability of family and the purchase of life insurance, so that *a priori* it was not clear whether the associations would be positive or negative. In fact, our analyses offer evidence of these competing relationships. Table 4 shows that the more children an individual has, the greater the likelihood of having life insurance. However, net of the number of children, having at least one son reduced the likelihood of having insurance. This can be seen more clearly in Table 5, which presents the predicted probabilities of currently having life insurance for a number of characteristics and interactions.<sup>7</sup> For example, if an individual has three children, but no sons, the individual has a 9 percent chance of having life insurance; with three children and at least one son, they



have only a 6 percent probability of currently having insurance. This pattern supports the hypothesis that the presence of at least one son reduces the risk of needing non-familial care.

**Table 4: Logistic Regression Explaining Current Life Insurance Ownership**

	Coefficient	Odds Ratio	p-value
Intercept	-2.23		0.0001
<b>Familial Resources</b>			
Currently married	-0.48	0.62	0.0407
Number of living children	0.14	1.15	0.0013
Living son(s)	-0.47	0.62	0.1010
<b>Socioeconomic/Demographic Attributes</b>			
Age-60	-0.18	0.83	0.0001
Male	-0.50	0.60	0.1203
Head of household's education	0.37	1.45	0.0013
Income NT\$20,000+	0.40	1.49	0.0307
Income missing	-0.25	0.78	0.5442
Place of birth Mainland China	-0.47	0.62	0.0302
<b>Interactions</b>			
Male * Currently married	0.68	1.97	0.0600
Male * Income missing	0.86	2.37	0.0738
<b>Model chi-square (11 d. f.)</b>		<b>161.646</b>	<b>0.0001</b>
<b>Number of cases</b>		<b>2,989</b>	
<b>Number of respondents with life insurance</b>		<b>227</b>	

Notes: Number of living children is treated as a continuous variable with a top code of 8+. Age is treated as a continuous variable with a top code of 75+, and is normalized as the respondent's age in 1989 less 60 (the minimum age at survey). Head of household's education is treated as a categorical variable with three levels: (1) illiterate; (2) primary (1-6 years)/can read; and (3) junior/senior/college (7-17 years).

For both men and women, being currently married is negatively associated with having life insurance. This indicates that married individuals purchasing life insurance for the spouse's benefit is not a major factor in these relationships. It may be that individuals who are not married are using life insurance as a form of personal

savings. Additionally, life insurance which benefits the children may be used to "sweeten the pot" for children in caring for their unmarried (e.g., widowed) parent; married individuals have less need for care by children and are thus less likely to purchase insurance to influence their children's behavior.

**Table 5: Illustrative Predicted Probabilities of Having Life Insurance**

	Predicted Probability	SD
<b>Sex * Marital Status</b>		
Male * Currently married	5.98	5.85
Male * Single	9.04	8.37
Female * Currently married	9.21	8.51
Female * Single	13.52	11.60
<b>Sex</b>		
Male	6.49	5.89
Female	9.98	8.53
<b>Number of Living Children * Living Son(s)</b>		
None	6.22	5.25
One * No sons	7.04	5.86
Three * No sons	8.94	7.25
Six * No sons	12.61	9.70
One* Living son(s)	4.60	3.97
Three* Living son(s)	5.92	5.01
Six * Living son(s)	8.53	6.95
<b>Age in 1989</b>		
60	17.80	6.81
70	3.54	1.66
75+	1.47	0.07
<b>Education</b>		
Illiterate	5.29	4.30
Primary/Can read	7.37	5.81
Junior/Senior/College	10.14	7.68
<b>Total Monthly Income</b>		
NT\$20,000+	10.20	8.13
Less than NT\$20,000	7.27	6.08
<b>Place of Birth</b>		
Taiwan	8.28	6.81
Mainland China	5.45	4.67

The differences by gender in the relationship with marital status and life insurance support this hypothesis. Among any gender/marital status combination, it is single women who are the most likely to have insurance.<sup>8</sup> Indeed, single women have among the highest predicted probabilities of having life insurance of any group examined — 13.5 percent. While both single men and single women may need to rely upon their children for care and assistance, children may consider caring for their mothers the greater burden, perhaps because of their reduced status. Interestingly, while the association between having insurance and marital status differs by gender, there is no evidence of an additive effect of gender itself. Controlling for the other characteristics, men are no more likely than women to currently have life insurance.

The relationship between the socioeconomic traits and having life insurance generally support the hypothesis that insurance is purchased by those with a more "modern" orientation. The differences by age are striking, with a sharp decline in the probability of owning insurance with advancing age. Education also was positively associated with currently having insurance; the probability of having life insurance would double if everyone in our sample were to have at least a junior high education compared to if all were illiterate. This likely reflects, in part, access to information about life insurance, and perhaps investments more generally. This hypothesis would also explain the differences in the association between income and having insurance, since having relatively high income is positively associated with insurance. Finally, there is an increased probability of having insurance among those born in Taiwan as opposed to Mainland China. This may be due to more expansive

(*guanxi*) and entrenched social networks (*renqing*) among Taiwanese natives, especially when we consider that when those who purchased life insurance only as a favor to the salesperson were dropped from the model (61 cases), there was no longer any significant difference between those born in Mainland China and those born in Taiwan (results not shown).

## VI. Discussion

Although less than 10 percent of the respondents in our survey are currently covered by life insurance, it is intriguing that about 40 percent of those with life insurance reported the purchase was in part for savings/investment and about 20 percent also reported a desire to safeguard the beneficiary. These motivations both suggest a recognition that a life insurance policy can serve as a mechanism for financial security. However, about 40 percent reported purchasing their life insurance at least partly as a favor to the salesperson. We suggest that these favors may represent an investment in social capital (*renqing*) and the influence of *guanxi* in decisions regarding the purchase of life insurance.

It is possible that "huge numbers of policies are written, stay on the books long enough for the substantial first-year commission to be paid, and then go off the books, often to be rewritten by the same agent" (Dacey, 1989: 84). We would expect that persons who felt pressured into buying life insurance may simply neglect to keep up with the premiums and therefore allow their policies to "lapse." On policies terminated before maturity, the cash value (if any) is refunded to the policyholder. It should be possible to investigate

separately the life insurance industry data on lapses for domestic and foreign life insurance firms. We would expect that domestic companies have higher lapse rates, or lower persistency rates, compared to their foreign counterparts because the domestic companies are accustomed to marketing their products within a strong social nexus. Unfortunately, the annual report published by the Taipei Life Insurance Association (1993) do not provide enough information to permit the computation of lapse rates. The majority of lapses occur within the first two years of a policy, when the cash value is low or nil. It is not clear whether lapsed policies with little or no cash value are counted among the policies for which benefits have been paid. Policies that have matured (say, after 10 years) but have not yet been paid would not be considered in force nor would the policy be counted as having paid benefits.

There is, nevertheless, some evidence to support the claim that persistency rates among foreign life insurance companies are higher than the domestic companies. As shown in Table 6, foreign companies show impressive gains in new business, business in force, and benefit payments between 1988 and 1992. For foreign companies, benefits paid were about 3% of business in force. In contrast, benefits paid make up about 15% of the business in force for locally-owned life insurance companies. The greater frequency of benefit payments among locally-owned insurers suggests that agents affiliated with locally-owned companies may be more forgiving in granting coverage to risky applicants, perhaps because there is a stronger sense of *renqing* or *guanxi*.

Although the survey data do not allow us to distinguish among the different types of life insurance policies, it is generally

uneconomical for retired persons to purchase life insurance. Life insurance is normally purchased to protect a future income stream, particularly if there are dependents involved. Term insurance premiums become increasingly costly at older ages as the risk of mortality increases with age. Endowment insurance is only useful if it provides a convenient method of savings, for those who otherwise would not save, but it is accepted that other financial mechanisms (e.g., bonds, mutual funds, money market accounts, certificates of deposit, interest-bearing checking or savings accounts) would provide a much more satisfactory rate of return (Dacey, 1989). It is therefore reasonable that relatively few elderly currently carry life insurance. However, it is certainly curious that even this small number (nearly 10 percent) of elderly respondents currently have life insurance. It will be of interest to track whether the proportion of elderly with life insurance increases in the next decade because of increasing concern about old age security, particularly for spouses. The concern for old age security is clearly demonstrated by the numbers of insureds motivated by a desire to save or invest for the future.

Cultural values, including an aversion to the linking of death with financial gain, superstitions about the mysterious link between life insurance and death, and a sense of fatalism which would preclude the natural consideration of life insurance, have all been mentioned as barriers to the widespread acceptance of life insurance in Asia (Skully, 1985; Richmond, 1993). Unfortunately, our data offer little insight about superstitious beliefs and whether there is an aversion to attaching a price to one's life. About 34 percent of the reasons given for never purchasing life insurance are grouped under

the category: "Feel that having life insurance is of no use, of no value, *not interested in buying it*, not necessary to buy it, *don't want it*, health is still good." It is therefore impossible to sort out those who believe that their family would not benefit by insurance, as opposed to those who would reject coverage even if their family could benefit from it. The mixing of death with financial gain is not a comfortable topic of discussion within Chinese families. This is reflected in the relatively infrequent use of wills in Taiwan (Li, 1993) and may be an important reason for the relatively low prevalence of life insurance coverage in Taiwan and other Asian countries with similar values. Superstitions linking the purchase of life insurance with actual loss of life appear to be declining in Asia, especially if we are to believe the popular press (e.g., Skully, 1985; Richmond, 1993; Marchand, 1989; Graham, 1977). What may be most convincing evidence of a change in values is the slow but steady shift in the mix of new insurance business toward term policies that provide a payout in the event of death as is indicated by Table 6.

There are a number of limitations to our data, in addition to their cross-sectional nature. The required brevity of the 1991-92 follow-up survey restricted our ability to collect additional data that would have proven helpful in our analysis. In spite of their shortcomings, we believe the data are still very useful for providing insights that can be tested in future surveys. In future data collection efforts, we propose adding questions to clarify:

1. whether the policy held is term or includes some sort of savings scheme;
2. face amount of the policy (i.e., the amount the beneficiary would receive if the insured dies),<sup>9</sup>

3. premium costs and who pays;
4. when the policy was purchased or how long the policy has been held;
5. distinction between the "beneficiary" and the "owner" of a policy;
6. whether estate planning has been considered.

The cash value of a savings policy can be estimated from the face amount, premium costs, and duration of policy. Also required are better data on multiple beneficiaries and income (minimally with broad income groupings). It is important to probe more deeply into the reasons for owning and not owning life insurance. Multiple motivations for purchasing insurance (many of which were apparently not mentioned by the respondents) are likely to include tax considerations, income protection for beneficiaries, burial/funeral costs,<sup>10</sup> general savings, and/or savings toward a particular goal (e.g., son's wedding, daughter's dowry, child's education). Questions about superstitious beliefs held by the respondent regarding death and dying, and concerns about old-age security, should be asked early on and apart from the life insurance questions as these attitudes may influence the decision NOT to purchase life insurance.

The degree to which social obligation and exchange enters into the decision to purchase life insurance also deserves further probing, especially since we expect to see this reason diminishing in importance in future years. It would be useful to know whether the insurance transaction was initiated by the salesman or respondent (e.g., "Were you approached by a sales agent or did you decide to



Table 6: New Business, Business in Force, and Benefit Payments: Taiwan vs. Foreign Life Insurance Companies

	New business: Number of new individuals covered during year					Business in Force: Number of individuals covered at the end of the year					
	1988	1989	1990	1991	1992	1988	1989	1990	1991	1992	
<b>Locally-owned</b>											<b>Foreign-owned</b>
Percent increase		16.64%	20.60%	-0.93%	8.33%		193.34%	64.99%	77.42%	28.25%	
Ordinary life insurance	1,305,409	1,522,617	1,836,237	1,819,110	1,970,620	10,027	29,413	48,528	86,096	110,421	
Pure endowment	86	81	135	65,836	84,815	0	0	0	0	136	
Endowment	1,088,284	1,203,515	1,411,252	1,234,499	1,217,748	1,397	4,004	6,645	14,278	19,912	
Insurance against death	217,039	319,021	424,850	518,775	668,057	8,630	25,409	41,883	71,818	90,373	
Percent increase		20.49%	18.37%	13.04%	14.83%		271.84%	110.81%	93.57%	60.53%	
Ordinary life insurance	4,148,843	4,999,125	5,917,483	6,688,961	7,680,757	9,973	37,084	78,175	151,326	242,923	
Pure endowment	10,786	9,066	8,411	65,612	125,183	0	0	0	0	136	
Endowment	3,679,274	4,301,948	4,912,863	5,279,599	5,714,184	1,396	4,983	10,209	21,866	37,640	
Insurance against death	458,783	688,111	996,209	1,343,750	1,841,390	8,577	32,101	67,966	129,460	205,147	
Percent increase		27.78%	45.55%	36.30%	4.69%		9900.00%	246.84%	-37.96%		
Ordinary life insurance	429,006	548,182	797,853	1,087,465	1,138,469	0	31	3,100	10,752	6,671	
Pure endowment	4,974	3,965	2,502	2,275	6,353	0	0	0	0	0	
Endowment	414,454	530,532	754,694	1,043,463	1,096,426	0	0	914	3,148	2,233	
Insurance against death	9,578	13,685	40,657	41,727	35,690	0	31	2,186	7,604	4,438	

Note: Causes of benefit payments include maturity, death, medical, disability, surrender (annual), and annuity.

seek coverage on your own?"), and test the extent to which the degree of social distance (e.g., whether the agent is a close relative, distant relative, good friend, or acquaintance) is associated with the likelihood of purchasing life insurance as a favor to the sales agent.

## VII. Conclusion

The dramatic aggregate trends in the purchase of life insurance in Taiwan suggest underlying cultural and economic changes which are worthy of study. If the growth of life insurance represents a cultural shift, these changes need to be observed across a range of cohorts, particularly as a large proportion of insurance in Taiwan is purchased by those between ages 20 and 50 (Chan, 1992). Nevertheless, a better understanding of life insurance participation among the elderly is important for the very practical reason of examining factors likely to influence the well-being of the elderly.

There are many reasons to expect that life insurance will increasingly predominate in the future. The aging of Taiwan (9 percent aged 65+ in 2005; nearly 14 percent by 2020) suggests that old age security can only become a greater issue (U.S. Bureau of the Census International Database). Taiwan's future elderly population will be increasingly composed of persons with more education, greater income, and greater exposure to non-familial mechanisms of older age support (e.g., the impending nationalization of health insurance and social security). In light of our findings, these characteristics are associated with greater likelihood of life insurance coverage. Furthermore, the business world perceives much more room for life insurance growth as Taiwan's utilization rate is

considered low when compared to that of the U.S., Japan and South Korea (Chan, 1992). U.S. firms already have worked aggressively to "educate their clients about coverage needs, suggesting the addition of riders to their policies depending on an individual's background, and introducing ways to reduce the client's premiums. The concepts of a ten-day decision period, lower rates for women, discounts for non-smokers, and premium reductions have been introduced into the competition by U. S. firms" (Chan, 1992).

We find that the growth of life insurance in Taiwan does not appear to represent a dramatic shift from a reliance on familial to market sources of care for the elderly. Instead, our data suggest that the elderly in Taiwan use formal mechanisms in a manner that strengthens and complements a reliance on familial care. Rapid economic growth and development in Taiwan, as evidenced by the availability of life insurance, does not seem to have dramatically altered the historical ideal of strong filial loyalty. These findings corroborate recent research which finds continued patrilineal patterns of support in Taiwan and other East Asian settings (Lee, et al., 1994; Casterline, et al., 1991). Yet the evidence of what appears to be strategic bequest behavior suggests that individuals are using market resources to influence informal patterns of behaviors. In addition, the finding that much insurance is purchased, at least in part as a favor, is also evidence of this same strategy of involvement in the formal market to potentially influence more informal relations. This combining of both traditional and more modern strategies of personal relations is an example of the adaptive process by which Taiwan adjusts to its rapid economic growth and cultural change.

## Notes

- 1 See, for example, Anonymous (1992: 8), and Graham (1977: 35).
- 2 Details of the sampling plan and questionnaire are available in Taiwan Provincial Institute of Family Planning, Population Studies Center and Institute of Gerontology, University of Michigan 1989.
- 3 Ku-sen District of Kaohsiung City was not followed up (41 cases). The remaining 434 respondents who did not complete the follow-up interview show no apparent regional clustering.
- 4 Mainlanders comprise 26 percent of the baseline sample in 1989 and 21 percent of the 1991-92 telephone follow-up survey sample. Similarly, the percent of large-city residents is 29 percent and 26 percent, respectively.
- 5 Number of children and number of living sons was coded as zero for never-married respondents who were associated with responses of N/A.
- 6 Age is normalized as the respondent's age in 1989 less 60 (the minimum age at survey).
- 7 The predicted probability of having life insurance is calculated directly from the logistic regression as:  $\text{Probability of having life insurance} = \frac{\exp(\sum \beta_i X_i)}{1 + \exp(\sum \beta_i X_i)}$ . The calculation of predicted probabilities for each characteristic essentially simulates a scenario where everyone in the sample is assumed to have the characteristic of interest.
- 8 "Single" refers to those who were never married, widowed, divorced or separated.
- 9 Face amount is limited to a maximum of NT\$20 million ( $\approx$  US\$800,000) (Jones, 1991).
- 10 For example, Zelizer (1994) documents the importance of insurance among the poor in early 20th century America to pay for a proper burial, not to subsidize survivors.

## References

- Andrews, G. R., A. J. Esterman, A. J. Braunack-Mayer, and C.M. Rungie.  
1986 *Aging in the Western Pacific: A Four Country Study*. Western Pacific Reports and Studies No. 1. Manila: World Health Organization Regional Office for the Western Pacific.
- Anonymous  
1992 "Life Insurance Accepted as Crutch for Old Age," *The Free China Journal* IX (1, January 7): 8.
- Cain, Mead  
1983 "Fertility as an Adjustment to Risk," *Population and Development Review* 9 (4): 688-702.
- Casterline, J., L. Williams, A. I. Hermalin, M. C. Chang, N. Chayovan, P. Cheung, L. Domingo, J. Knodel and M. B. Ofstedal.  
1991 "Differences in the Living Arrangements of the Elderly in Four Asian Countries: The Interplay of Constraints and Preferences," *Comparative Study of the Elderly in Asia Research Reports 91-10*. Ann Arbor: University of Michigan Population Studies Center.
- Chan, Ellen  
1992 "The Life Insurance Market in Taiwan," Partial extract. U.S. Department of Commerce, International Trade Administration, Market Research Reports. National Trade Data Bank - The Export Connection (CD-ROM). ISA9207. November 30, 1993.
- Chang, M. C. and M. B. Ofstedal  
1991 "Changing Attitudes toward Old-Age Support in Taiwan: 1973-1985," *Comparative Study of the Elderly in Asia Research Reports 91-8*. Ann Arbor: University of Michigan Population Studies Center.

Cowgill, Donald O. and Lowell D. Holmes (eds.)

1972 *Aging and Modernization*. New York: Meredith Corporation.

DaVanzo, Julie and Angelique Chan

1994 "Living Arrangements of Older Malaysians: Who Coresides with their Adult Children?" *Demography* 31(1, February): 95-113.

Dacey, Norman F.

1989 *What's Wrong with Your Life Insurance*. New York: Macmillan Publishing Company.

Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China

1994 *Monthly Statistics of the Republic of China*. No. 337.

Freedman, Ronald

1971 "Norms for Family Size in Underdeveloped Areas," in Roger Revelle, Ashok Khosla and Maris Vinovskis (eds.), *The Survival Equation: Man, Resources, and His Environment*, pp. 16-32. Boston, MA: Houghton Mifflin.

Freedman, Ronald, Ming-cheng Chang and Te-hsiung Sun

1982 "Household Composition, Extended Kinship and Reproduction in Taiwan: 1973-1980," *Population Studies* 36: 395-411.

Graham, J.

1977 "Asia's Insurance Business," *Insight for Decision-makers in Asia* (April): 27-53.

Hermalin, Albert I., Mary Beth Ofstedal, and Ming-Cheng Chang

1992 "Types of Support for the Aged and their Providers," *Comparative Study of the Elderly in Asia Research Reports 92-14*. Ann Arbor: University of Michigan Population Studies Center.

Hwang, Kwang-kuo

- 1987 "Face and Favor: The Chinese Power Game," *American Journal of Sociology* 92 (4, January): 944-74.

Jones, David C.

- 1991 "U. S. Life Companies Find Taiwan Alluring," *National Underwriter Life & Health Financial Services Edition* (April 8): 2.

Lavine, Alan

- 1993 *Your Life Insurance Options*. New York: John Wiley & Sons, Inc.

Lee, Yean-Ju, William Parish and Robert Willis

- 1994 "Sons, Daughters, and Intergenerational Support in Taiwan," *American Journal of Sociology* 99 (4): 1010-1041.

Li, Rose Maria

- 1993 "Division of Family Property in Taiwan," *Journal of Cross-Cultural Gerontology* 8: 49-69.
- 1994 "Aging Trends--Taiwan," *Journal of Cross-Cultural Gerontology* 9 (3): 389-402.

Li, Rose Maria; Xie, Yu; and Lin, Hui-Sheng

- 1993 "Division of Family Property in Taiwan," *Journal of Cross Cultural Gerontology* 8(1): 49-69.

Marchand, Christopher

- 1989 "A Win for Washington," *Far Eastern Economic Review* 144 (April 6): 78-79.

Richmond, Henry S.

- 1993 "The Macau Life Insurance Industry Market in Hong Kong," Report (March) prepared at the American Consulate General-Hong Kong. National Trade Data Bank-The Export Connection, Item ID: IT Market 111097800, November 30, 1993, USDOC, International Trade Administration Market Research Reports.

Schmidt, Jonathan K.

- 1992 "Insurance Firms Face Stern Competition as Market Opens," *The China Post* (July 4): 20.

Skully, Michael T.

- 1985 *ASEAN Financial Co-Operation: Developments in Banking, Finance and Insurance*. New York: St. Martin's Press.

Sun, T. H.

- 1991 "Population Projections and Future Implications: Taiwan, Republic of China," Paper Presented at the Workshop on Aging (East-West Population Institute and the Department of Health, Executive Yuan, Republic of China), Honolulu, Hawaii, February 3-9.

Taipei Life Insurance Association.

- 1993 *Annual Report of Life Insurance, Republic of China, 1992*. (June).

Taiwan Provincial Institute of Family Planning, Population Studies Center and Institute of Gerontology, University of Michigan

- 1989 *Survey of Health and Living Status of the Elderly in Taiwan: Questionnaire and Survey Design*. Comparative Study of the Elderly in Four Asian Countries, Research Report No. 1 (December), Population Studies Center, University of Michigan.

Thornton, Arland and Hui-Sheng Lin (eds.)

- 1994 *Social Change and the Family in Taiwan*. Chicago, IL: University of Chicago Press.

Thornton, Arland, Ming-cheng Chang and Te-hsiung Sun

- 1984 "Social and Economic Change, Intergenerational Relationships and Family Formation in Taiwan," *Demography* 21: 475-99.

Tsuya, N. O. and L. G. Martin

- 1992 "Living Arrangements of Elderly Japanese and Attitudes toward Inheritance," *Journal of Gerontology* 47: S45-54.



Ying, S. W.

1975 "Insurance Industry in the Republic of China," *Industry of Free China* 43 (1, January): 24. Taipei.

Zelizer, Viviana A. Rotman

1994 *The Social Meaning of Money*. New York: Basic Books.

## Appendix I

### Life Insurance Companies in Taiwan

---

#### Domestic Companies:

The First Life Insurance Company, Ltd.  
Cathay Life Insurance Company, Ltd.  
China Life Insurance Company, Ltd.  
Nan Shan Life Insurance Company, Ltd.  
Kuo Hua Life Insurance Company, Ltd.  
Shin Kong Life Insurance Company, Ltd.

Life Insurance Department of CTC  
Taiwan Life Insurance Company, Ltd.

#### Foreign Companies with Taiwan Branch:

Aetna Life Insurance Company of America  
Life Insurance Company of Georgia  
Metropolitan Insurance and Annuity Company  
Pruco Life Insurance Company  
Connecticut General Life Insurance Company  
American Life Insurance Company  
The Manufacturers Life Insurance Company of America  
Transamerica Occidental Life Insurance Company  
New York Life Insurance & Annuity Corporation  
American Family Life Assurance Company

## Appendix II

### 1991-92 Telephone Follow-up to the 1989 Survey of Health and Living Status of the Elderly in Taiwan: Questions Pertaining to Life Insurance

---

3.10 Do you have any life insurance now?

- 1 Yes → [go to 3.10a-3.10e]
- 2 No → [skip to 3.10f]
- 3 Don't know → [skip to 3.10f]

3.10a How many types of life insurance policies do you currently have?

3.10b Who is the beneficiary?

- 1 Yourself
- 2 Spouse
- 3 Son
- 4 Daughter
- 5 Grandchild
- 6 Other relative
- 7 Other non-relative
- 0 Don't know

3.10c Why did you purchase life insurance? (check all that apply)

- 1 As a method of saving or investment
- 2 As income protection for beneficiaries

- 3 As a favor to the insurance salesperson (or not comfortable to refuse)
- 4 Other (e.g., in case of accidental injury or death)

3.10d When did you purchase this life insurance policy? (ROC year)

3.10e Before this time, did you ever own a life insurance policy?

- 1 Yes
- 2 No
- 0 Don't know

3.10f Have you ever had life insurance before?

- 1 Yes → [go to 3.10g-3.10h]
- 2 No → [skip to 3.10i]
- 3 INAP (Currently has life insurance)
- 0 Don't know → [FINISH]

3.10g When did your last life insurance policy begin? (Enter ROC year)

3.10h Why do you no longer continue your insurance policy?

- 01 Already expired
- 02 Red-tape (procedural difficulty); had to interrupt
- 03 Financial difficulty; couldn't afford to continue insurance
- 04 Felt that having insurance was not useful, not worth it
- 05 Already very old

- 07 Insurance company would not continue the policy  
(if have serious illness)
- 77 Other
- 88 INAP (If have life insurance now, or never had life  
insurance)

3.10i Why have you never bought life insurance?

- 01 Already expired
- 02 Don't know how to buy life insurance; the process is  
too complicated; or because of procedural difficulty  
(red tape) couldn't successfully buy it
- 03 Financial difficulty; couldn't afford to buy life  
insurance
- 04 Feel that having life insurance is of no use, of no  
value, not interested in buying it, not necessary to  
buy it, don't want it, health is still good
- 05 Already very old
- 07 Insurance company wouldn't sell a policy to the  
respondent because of a serious illness
- 77 Other
- 78 Never thought about buying it
- 88 INAP (If already has insurance)