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The decrease in life insurance ownership: Implications for financial planning

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Abstract

Based on our analyses of Survey of Consumer Finances datasets, the proportion of households owning a life insurance policy decreased from 72% in 1992 to 60% in 2016. We estimated logistic regressions on the likelihood of ownership of any, term, and cash value life insurance. We conclude that changes in household characteristics accounted for the decrease in term life insurance ownership, but not for the decreases in any and in cash value life insurance ownership. We also found a positive association between use of a financial planner and life insurance ownership. We discuss implications for financial planning.

JEL classification: D12; D14; G22

Keywords: Life insurance; Declining insurance demand; Survey of Consumer Finances

1. Introduction

Life insurance is an important component of risk management and insurance planning, and is also important in other financial planning topics, including employee benefits, income tax planning, and estate planning. "As late as 1960, life insurance was the

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substance of financial planning. . . " (Brandon and Welch, 2009, p. 2). However, the importance of life insurance seems to be decreasing in terms of ownership rates, and the relative number of life insurance agents (Scism, 2016). Also, the Certified Financial Planner Board (2015) list of principal knowledge topics weight for risk management and insurance for the CFP Exam, has decreased from 14% (Hanna, et al., 2011) to 12% (Certified Financial Planner Board, 2015). A *Wall Street Journal* article (Scism, 2016) suggested that because of consolidation and decreasing ownership rates, the life insurance agent may be going the way of the dinosaur. Cordell, Finke, and Lemoine (2007) noted the long-term trend of decreasing ownership of cash value life insurance between 1995 and 2004, and Retzloff (2010) reported that life insurance ownership in the United States was at a 50 year low. However, life insurance is still a vital safety net for U.S. households. The premature death of a wage-earner is one of the more serious financial risks a household faces. Income replacement and burial expenses are the top two reasons households own life insurance (Durham, 2015).

The main purpose of our research was to ascertain factors related to the decline of life insurance ownership rates of U.S. households. We analyzed a combination of 1992 to 2016 Survey of Consumer Finances (SCF) datasets, and found that ownership of life insurance decreased until 2013 and then stayed about the same in 2016. We conducted logistic regression analyses of the pooled dataset to analyze the extent to which changes in the composition of U.S. households might have contributed to the decreases in any, term, and cash value life insurance. Further, we conducted additional analyses to investigate the role of financial planner use on life insurance ownership. Our study contributes to some implications for financial planners by providing insights into life insurance ownership trends.

2. Literature review

2.1. Overview of life insurance

Without life insurance, most families would need to reduce their current standard of living in the event of the death of a spouse or partner (Auerbach and Kotlikoff, 1991; Bernheim, Carman, Gokhale, and Kotlikoff, 2003; Bernheim, Forni, Gokhale, and Kotlikoff, 2003). Cash value and term life insurance are the two main categories of life insurance. In addition to the insurance aspect of a cash value life policy, it also provides a savings component and is intended to last the insured's "whole" life. Term policies are pure insurance that are associated with a set number of years ranging from one to 40 with 20 years being a common term contract length. If the insured dies during this contract period, the beneficiary receives the face amount of the policy. If one dies after the contract expires, no benefits are paid to the beneficiary. Employer-provided group life insurance is one of the most common types of employer benefits, and in 2017, 60% of employers provided it, with 73% of eligible employees participating in group life insurance (Greenwald and Fronstin, 2019).

2.2. Previous studies on life insurance ownership

Mulholland, Finke, and Huston (2016) examined the declining trend in cash value life insurance ownership rates using the 1992 to 2010 waves of the SCF. The proportion of cash value life policies relative to term life policies dramatically decreased over this period. They found a substitution effect, as those who owned term life insurance were less likely to own cash value life insurance. However, Frees and Sun (2010) found a complementary effect, as those who owned term life insurance were more likely to own cash value life insurance. Mulholland et al. (2016) and Glazer (2007) noted that in addition to the income protection features of term life insurance, cash value life insurance policies have been marketed as tax-advantaged investments. However, with the introduction of more tax-advantaged savings instruments such as Roth IRAs, along with the introduction of tax-advantaged savings plans for college costs, many households now have attractive alternatives to cash value life insurance for important financial goals. Increases in federal income tax marginal rates could potentially decrease the demand for cash value life insurance. Mulholland et al. (2016) noted that cash value life insurance has had an important role in estate planning tools, especially when more households were potentially subject to the federal estate tax. The increases in the exemption amounts for the federal estate tax have generally reduced the number of households potentially subject to the tax after 2004. Mulholland et al. (2016) also noted that the cost of term life insurance has dropped substantially since the introduction of internet marketing and price comparisons, but the cost of cash value life insurance has not dropped as much. Heo, Grable, and Chatterjee (2013) examined the 2004 and 2008 National Longitudinal Survey of Youth 1979 cohort that consisted of respondents aged 43–51. Heo et al. (2013) noted that there was a net decrease of one percentage in life insurance ownership over this period.

Guillemette, Hussein, Phillips, and Martin (2015) analyzed the 1992 through 2010 SCF datasets, finding a decreasing ownership trend and examined if household size affected life insurance ownership differently for minority households. Compared with White households, as household size increases, the likelihood of life insurance ownership decreases for both Black and Hispanic households. Additionally, they found that being employed, age, education, presence of children, homeownership, and being married to be positively associated with having life insurance. Relative to 1992, all subsequent survey years were significant and negative with the exception of 1995 that was not significantly different than 1992. They also found that self-employed households were less likely to own life insurance compared with those working for an employer, and Hispanic households were less likely to own life insurance than otherwise comparable White households, while Black households were more likely to own life insurance than White households.

Gutter and Hatcher (2008) examined the demand for life insurance using the 2004 SCF, with an objective of determining factors related to White and Black household life insurance ownership differences. Gutter and Hatcher (2008) found age to be positively correlated to life insurance ownership. Homeownership was positively related to life insurance ownership while the likelihood of life insurance ownership for those with children was not different from those without children. Mountain (2015), using the 2013 SCF, examined life insurance ownership for working coupled households aged 30–64. Mountain (2015) estimated that the

median proportion of insurable human wealth insured with life insurance was only 28%. Age and education were positively associated with life insurance ownership. Households with a Black respondent were more likely, and those with Hispanic and Asian/other respondents were less likely, to own life insurance than households with a White respondent. Married couples were more likely to own life insurance than partnered couples.

Liebenberg, Carson, and Dumm (2012) explored the determinants of life insurance demand for both term and whole life policies in a dynamic analysis where the authors used 1983–1989 SCF panel datasets in a Cragg model. They found that new parents were more likely to own life insurance than those who were not new parents, and households who had started a new job were more likely to increase their holdings of term insurance coverage than those who had not. Bernheim, Carman et al. (2003) examined financial vulnerability and life insurance coverage at all stages of the life cycle. The authors proposed two explanations on why a household with financial vulnerabilities might not be protected by life insurance: (1) young households purchased long term life insurance contracts but failed to update them as life events change; (2) actual needs had no effect on purchase.

Finke, Huston, and Waller (2009) used data from the 2004 SCF and compared the difference of life insurance purchases between people who were advised by either financial planners or brokers (dealers) to those who were not. They found that households that used financial planners and that used broker/dealers shared similar demographic characteristics. More important, the estimation results showed that people who relied primarily on financial planners were more likely to purchase adequate life insurance holdings, while the use of broker/dealers had no impact on levels of life insurance. Finally, households who were wealthier, self-employed, and home-owning tended to purchase more adequate life insurance holdings. Baek and DeVaney (2005) developed a model of term and whole life insurance ownership and amount of coverage, and tested the effects of human capital, bequest motives, and risk variables, as well as other household characteristics. They found that ownership of term life insurance decreased with age, was higher for middle income households than for low income households, and higher for homeowners than for renters, but education was not significantly related to term life insurance ownership. They also found that ownership of cash value life insurance was highest for those over the age of 65, and there was also a positive relationship with age controlling for other characteristics including life expectancy. Cash value life insurance ownership was also negatively related to having excellent health, positively related to the level of liquid assets, and those in the highest income tax bracket were more likely to own than those in the lowest bracket. Ownership was not significantly related to attitudes about leaving a bequest.

Using Finke et al. (2009) as framework, Scott and Gilliam (2014) focused on baby boomer life insurance adequacy before and after the 2008 financial crisis. The authors used 2004 and 2010 SCF datasets to represent before and after the 2008 financial crisis. They found that the use of a financial planner was higher among household with adequate life insurance. In addition, having a financial planner acted as a positive predictor of life insurance adequacy in 2004, while it had no impact on life insurance adequacy in 2010, after the 2008 financial crisis. Mountain (2015) found that households who consulted a financial planner or broker were more likely to own life insurance and also, given ownership, to have higher face value

amounts, however, he did not find the financial planner or broker variable to be significant when exploring the proportion of insurable human wealth that was insured by life insurance.

2.3. Overview of past research on life insurance

We reviewed selected research on factors related to life insurance ownership and adequacy. While previous researchers have found a number of household characteristics to be related to life insurance ownership, none of the studies have had a focus on identification of factors related to changes in life insurance ownership over many years. We estimated models of life insurance ownership with a combined dataset of 1992 through 2016 SCF datasets; thus, using more recent data than previous research, some of which included datasets only through 2010. By estimating a time trend controlling for household characteristics, we investigated the question of whether the decrease in life insurance ownership has been primarily because of changes in household characteristics, or to some other factors, such as the increasing availability of alternative tax advantaged investment options such as 401k accounts (Mulholland et al., 2016).

3. Methods

3.1. Data and sample selection

We used a pooled dataset from nine waves of the Survey of Consumer Finances (SCF), from 1992 to 2016. The Federal Reserve Board (FRB) has released the SCF cross-sectional dataset triennially since 1983. Hanna, Kim, and Lindamood (2018) provide detailed information about using SCF datasets. For more information about specific variables, see Board of Governors of the Federal Reserve System (2014, 2017). The total sample size of the pooled dataset is 44,634. There were 883 cases where life insurance ownership was missing (shadow variables with values over 90, see Hanna et al., 2018), and those cases were excluded from our analyses. The final analytic sample was 43,751.

3.2. Measurement of variables

3.2.1. Dependent variable

The SCF has life insurance ownership variables for both term life insurance and cash value life insurance. For our empirical analysis as well as the life insurance ownership trend, we use three separate binary dependent variables: whether the respondent or any family member has, term, cash value, or any life insurance policy (i.e., term or cash value). The actual questions are presented in Appendix 1.

3.2.2. Independent variables

Following the existing literature on life insurance ownership, the set of independent variables included survey year, age of the household head, age squared, marital status (married, single male, single female, and partnered), education of the household head (less

than high school, high school, some college, bachelor degree, and postbachelor degree), race/ethnicity (White, Black, Hispanic, and Asian/others), presence of a child under 18, current income compared with normal income (low, normal, and high), log of household income, home ownership, employment status of the household head (salary worker, self-employment, retired, and not working) and health status of a household head (excellent, good, fair, and poor). In the SCF, race/ethnicity is of the respondent (Lindamood, Hanna, and Bi, 2007), but for convenience, we refer to the race/ethnicity of the household, for example, White households.

The SCF has had a question about whether a household reported using a financial planner for information on (1) saving and investment decisions and/or (2) borrowing and credit decisions since the 1998 SCF. We used an indicator for comprehensive financial planner use, defined as a household using a financial planner for saving/investment and/or borrowing/credit issues (Elmerick, Montalto, and Fox, 2002).

3.2.3. Analysis

Given the binary dependent variables of life insurance ownership, logistic regression models are utilized to analyze factors related to the ownership of any life insurance, term life insurance, and cash value life insurance. Because of the nature of the data and our analysis, we are not able to attribute specific causal relationships for life insurance ownership. For descriptive purposes, means tests are also employed. We used the Repeated-Imputation Inference (RII) method with all of the five implicates in each SCF dataset, which provides an estimate of variances more closely representing the true variances than estimates obtained by only one implicate (Hanna et al., 2018; Lindamood et al., 2007). In order to provide conservative hypothesis tests (Shin and Hanna, 2017), we did not weight the multivariate analyses.

4. Results

4.1. Descriptive results

Fig. 1 displays the historical downward trend in life insurance ownership from the combined 1992–2016 SCF datasets. The proportion of households owning some type of life insurance peaked at 72% in 1992 and reached a low of 60% in 2013, with the 2016 rate about the same as 2013. The proportion of households owning a term life insurance policy had a generally downward trend, starting at 54% in 1992, and decreasing to 48% by 2013, and the rate remained about the same in 2016. The proportion of households owning a cash value life insurance policy decreased from 36% in 1992 to 20% in 2013, and the 2016 rate was about the same as 2013. Table 1 presents the logistic regression results of the association between survey year and the likelihood of three different types of life insurance ownership, not controlling for other household characteristics. There were significant negative relationships between the survey year and the likelihood of ownership of any life insurance, term life insurance, and cash value life insurance.

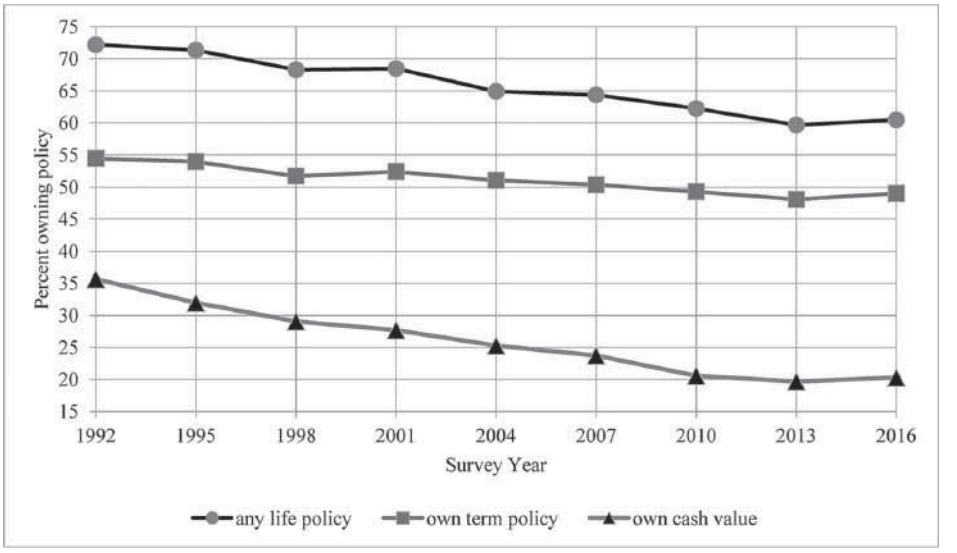

Fig. 1. Trend in life insurance ownership rates, any type, term, and cash value, 1992–2016 SCF weighted results. $N = 43{,}751$.

4.2. RII means test

The characteristics of our analytic sample are presented in Table 2. Most respondents were White, homeowners, did not have a child under 18, had current income about the same as normal, salary workers, completed education beyond the high school level and had good or excellent health status. Results of means tests are also included to show descriptive patterns of any, term, and cash value life insurance ownership by selected household characteristics. In the discussion below, we report patterns for ownership of any life insurance. The life insurance ownership rate was 46% for households with a respondent under 30, 71–72% for those with a respondent 40 to 49 and 50 to 59, and 63% for those with a respondent 70 and over. White households had a higher rate of life insurance ownership (69%) than each of the other racial/ethnic groups, and Hispanics had the lowest rate, 37%. Homeowners had a higher ownership (75%) than renters (46%).

The proportion of life insurance ownership was higher for married couples (77%) than for other groups. Households with a dependent child under age 18 had a higher life insurance ownership rate (68%) than those without a child (64%). Households with unusually high

Table 1 Logistic regressions on ownership of any, term, and cash value life insurance by survey year only, 1992–2016 SCF

	Any life insurance		Term life insurance		Cash value life insurance	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Survey year	−0.0270***	0.0030	−0.0072***	0.0028	−0.0394***	0.0030
Intercept	54.9622	6.0089	14.3913	5.5264	78.1899	6.0701
Mean concordance	50.1%		45.8%		53.1%	

Note: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Unweighted analysis with RII technique. $N = 43{,}751$.

Table 2 Proportion of ownership of any, term, and cash value life, by household characteristics, 1992–2016 SCF

Variable	Category	Distribution (%)	Any life insurance		Term life insurance		Cash value life insurance	
			Rate of insurance ownership (%)	Significance level	Rate of insurance ownership (%)	Significance level	Rate of insurance ownership (%)	Significance level
Age of head	**Less than 30**	12.8	45.5	Reference	37.7	Reference	12.7	Reference
	Between 30 and 39	19.0	63.7	<0.001	54.4	<0.001	20.0	<0.001
	Between 40 and 49	20.5	71.1	<0.001	60.1	<0.001	23.6	<0.001
	Between 50 and 59	18.0	71.5	<0.001	58.4	<0.001	28.0	<0.001
	Between 60 and 69	14.0	70.2	<0.001	49.6	<0.001	33.5	<0.001
	70 and over	15.7	62.9	<0.001	37.3	<0.001	32.7	<0.001
Race/ethnicity	**White**	73.2	68.7	Reference	53.4	Reference	27.6	Reference
	Black	13.5	66.5	<0.001	50.5	<0.001	24.7	<0.001
	Hispanic	9.2	36.9	<0.001	31.8	<0.001	8.6	<0.001
	Asian/other	4.1	59.0	<0.001	47.8	<0.001	18.8	<0.001
Homeowner	**No**	33.7	45.5	Reference	36.6	Reference	13.7	Reference
	Yes	66.3	75.0	<0.001	58.0	<0.001	30.9	<0.001
Marital status	**Married**	50.3	77.1	Reference	61.4	Reference	31.6	Reference
	Single male	14.9	51.7	<0.001	38.9	<0.001	18.2	<0.001
	Single female	27.3	53.7	<0.001	39.9	<0.001	19.5	<0.001
	Partner	7.5	52.2	<0.001	43.2	<0.001	16.2	<0.001
The presence of child under 18	**No**	66.2	63.8	Reference	47.4	Reference	26.1	Reference
	Yes	33.8	67.6	<0.001	57.5	<0.001	23.3	<0.001
Current income relative to normal	**Normal**	73.1	67.1	Reference	52.3	Reference	26.1	Reference
	Income higher	8.5	71.4	<0.001	56.9	<0.001	28.4	<0.001
	Income lower	18.4	54.0	<0.001	42.2	<0.001	19.8	<0.001
Employment status of head	**Salary worker**	58.0	70.7	Reference	59.4	Reference	23.6	Reference
	Self-employment	10.9	65.4	<0.001	48.8	<0.001	31.5	<0.001
	Not working	5.7	33.8	<0.001	25.5	<0.001	12.5	<0.001
	Retired	25.3	59.0	<0.001	37.6	<0.001	28.9	<0.001
Education of household head	**less than high school**	14.6	45.6	Reference	33.5	Reference	16.3	Reference
	High school degree	30.7	63.1	<0.001	47.7	<0.001	24.6	<0.001
	Some college	23.0	66.6	<0.001	52.2	<0.001	25.4	<0.001
	Bachelor degree	18.6	74.7	<0.001	61.0	<0.001	28.7	<0.001
	Post-bachelor degree	11.5	76.7	<0.001	61.6	<0.001	32.2	<0.001
Health status of head	**Excellent health**	27.1	70.2	Reference	56.6	Reference	26.8	Reference
	Good health	47.3	66.9	<0.001	52.9	<0.001	25.6	<0.001
	Fair health	19.4	58.4	<0.001	42.8	<0.001	23.3	<0.001
	Poor health	6.2	49.7	<0.001	34.9	<0.001	20.1	<0.001

Note: Author analyses of combined 1992–2016 SCF datasets, $N = 43{,}751$. RII technique is used for significance tests. The reference category used in the means test is indicated in bold face. Significance test is for mean difference from reference category for each variable.

current income were more likely to own life insurance (71%) than those with lower current income (54%) and those with current income about the same as normal (67%). Households with the head working for a salary had a higher rate of life insurance ownership (71%) than those in other types of employment status, and households with the head not working had only a 34% life insurance ownership rate. The proportion of life insurance ownership was highest for households with a head having a postbachelor degree (77%), compared with 75% for households with a bachelor degree, 67% for households with some college, 63% for those with a high school degree, and only 46% for those less than high school degree. Households with a head with excellent health had the highest proportion of life insurance, 70%, while those with poor health had the lowest proportion, 50%.

Table 3 Logistic regression analysis of likelihood of ownership of any, term, and cash value life, 1992–2016 SCF

	Any life insurance		Term life insurance		Cash value life insurance	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Survey year	−0.0277***	0.0034	−0.0039	0.0030	−0.0422***	0.0033
Age of head	0.0776***	0.0093	0.0838***	0.0092	0.0510***	0.0108
Age squared (/10000)	−6.3726***	0.8658	−8.6443***	0.8716	−2.6687**	0.9693
Race/ethnicity (reference: White)						
Black	0.5309***	0.0862	0.2519**	0.0793	0.3662***	0.0903
Hispanic	−0.9927***	0.0972	−0.7450***	0.0957	−0.8456***	0.1414
Asian/other	−0.3491**	0.1244	−0.2491*	0.1155	−0.2701*	0.1330
Homeowner	0.7555***	0.0636	0.5241***	0.0614	0.5487***	0.0738
Marital status (reference: married)						
Single male	−0.7504***	0.0793	−0.5418***	0.0754	−0.4549***	0.0864
Single female	−0.7767***	0.0689	−0.5186***	0.0651	−0.5665***	0.0753
Partnered	−0.6230***	0.1021	−0.4268***	0.0970	−0.3280**	0.1205
The presence of child under 18	0.1236	0.0657	0.1713**	0.0582	0.0739	0.0646
Current income relative to normal (reference: Normal)						
Income Higher	0.0294	0.0898	−0.0272	0.0762	0.1150	0.0799
Income lower	−0.3024***	0.0671	−0.2439***	0.0628	−0.1013	0.0724
Log of household income	0.0547***	0.0138	0.0218	0.0129	0.0451**	0.0147
Employment status of head (reference: Salary worker)						
Self-employment	−0.5130***	0.0736	−0.6081***	0.0624	0.2854***	0.0646
Not working	−1.1669***	0.1182	−1.0809***	0.1190	−0.3563*	0.1546
Retired	−0.7338***	0.0883	−0.6588***	0.0793	−0.0608	0.0854
Education of head (reference: Less than high school)						
High school degree	0.3858***	0.0842	0.1921*	0.0828	0.4210***	0.1008
Some college	0.5439***	0.0901	0.3173***	0.0870	0.4984***	0.1050
Bachelor degree	0.7273***	0.0951	0.4433***	0.0895	0.6248***	0.1055
Post-bachelor degree	0.5862***	0.1015	0.4375***	0.0942	0.5248***	0.1092
Health status of head (reference: Excellent health)						
Good health	0.0215	0.0615	0.0278	0.0537	0.0007	0.0574
Fair health	−0.0697	0.0813	−0.0677	0.0747	−0.0392	0.0831
Poor health	−0.2140	0.1256	−0.0945	0.1239	−0.2482	0.1422
Intercept	53.3805	6.7225	5.6963	6.0027	80.5698	6.5469
Mean concordance	75.6%		70.7%		72.0%	

Note: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Unweighted analysis with RII technique. $N = 43{,}751$.

4.3. Multivariate results

Table 3 shows the logistic regression results of the likelihood of three different types of life insurance ownership from the 1992–2016 SCF dataset, controlling for household characteristics. There was a negative relationship between the survey year and the likelihood of life insurance ownership for any life insurance and cash value life insurance, but the relationship was not significant for term life insurance ownership. The magnitudes of the coefficients of the time trend for ownership of any life insurance, and also for ownership of cash value life insurance were very similar between the results in Table 3 and the results in Table 1, suggesting that the negative trends in ownership and in cash value life insurance were not because of changes in household characteristics. However, the effect of the time trend on term life insurance ownership was not significant in Table 3, and the magnitude of

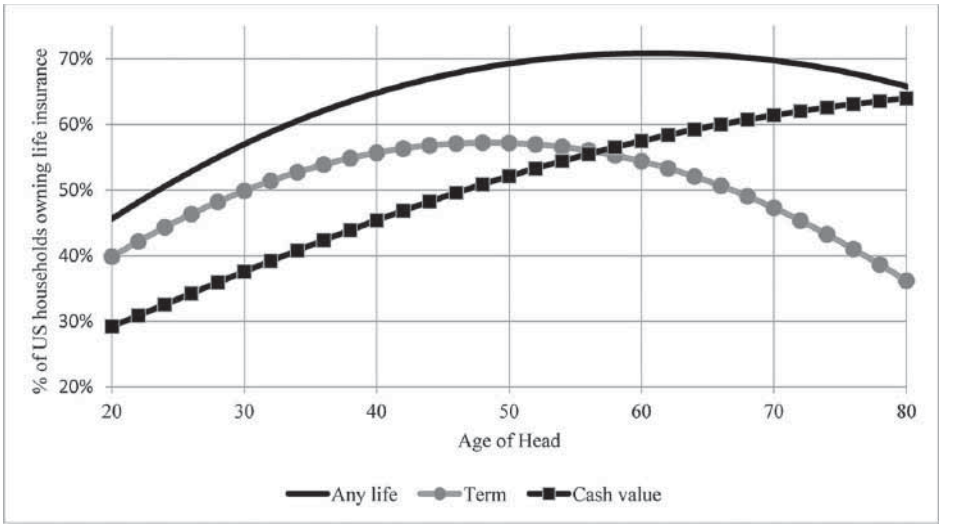

Fig. 2. Effect of age on the proportion of households owning any, term, and cash value life insurance, assuming other household characteristics have 2016 mean levels. Estimates based on logistic regressions in Table 3.

the effect was much less than the magnitude in Table 1, suggesting that the decrease in term life insurance might have been because of changes in household characteristics from 1992 to 2016.

Both age and age squared were significantly related to the likelihood of insurance ownership in each regression. The combined effect of the age variables implies that at the 2016 mean values of other independent variables, the likelihood of owning any life insurance increased with age until age 61, then decreased with age; ownership of term life insurance increased with age until age 48, then decreased with age; and ownership of cash value life insurance increased with age for all ages in the sample. Fig. 2 shows the calculated relationship between age of the head and the likelihood of ownership of each type of life insurance, based on the coefficients in Table 3 and assuming the 2016 mean values of other independent variables. This pattern is plausibly related to the cost of life insurance, which increases substantially with age. Households who purchased 20-year term policies in their 40s and 50s would have expiring policies in their 60s and 70s. At this point in life the cost of the insurance may outweigh the benefits, particularly if the household has relatively little debt and has adequate assets to offset the loss of income resulting from the death of a spouse or significant other. On the other hand, given estate planning goals and reduced opportunities for tax sheltered retirement accounts after age 70, the estimated increase in ownership with age of cash value ownership is plausible, since household income is assumed to remain at the overall 2016 sample mean.

For the remaining independent variables in Table 3, we discuss only the effects for ownership of any life insurance, though for many of the variables, the effects were similar for ownership of term life insurance and of cash value life insurance. For racial/ethnic patterns based on the regressions in Table 3, assuming other household characteristics had the mean levels for 2016, Black households had the highest predicted likelihood of owning life insurance, over 73%, compared with 61% for White households, 53% for Asian/other households, and only 36% for Hispanic households. There is no theoretical reason for there

to be differences in life insurance ownership between difference race/ethnic groups, if other household characteristics are equal. The reason for these differences may be related to differences in marketing practices of insurance companies. Hispanic and Asian households consist of a higher proportion of immigrant households, so it is possible that insurance companies have not effectively found a way to market to these individuals (Mountain, 2015), especially if life insurance is a product that is not well established in their country of origin. Hispanic and Asian households may also rely more heavily on their extended family network than both Black and White households, something that is not measured in the SCF.

For the relationship between marital status and life insurance ownership, assuming other household characteristics had the mean levels for 2016, married households had the highest predicted likelihood of owning life insurance, almost 70%, compared with 56% for partner households, 50% for single male households, and 49% for single female households. Surviving individuals in a coupled household are likely to be financially burdened if a spouse or partner were to die. Life insurance can help fill this burden. In general, single headed households are not financially dependent on another wage-earner and have little need for life insurance, because there would be no surviving spouse, though as Nam and Hanna (2019) discussed, there might still be a need in terms of making sure the person with custody of dependent children would have adequate resources. The difference between married and partnered coupled households may be because of the married households having a longer-term time horizon than otherwise similar partnered households. Presence of a dependent child under age 18 was not significantly related to ownership of any life insurance or of cash value life insurance, but was positively related to ownership of term life insurance. This is reasonable, because dependent children make the need for support for them paramount.

Household income was positively associated with the likelihood of owning any life or of owning cash value life insurance. For the relationship between income shocks and life insurance ownership, assuming other household characteristics had the mean levels for 2016, households with current income below normal had the lowest predicted likelihood of owning life insurance, 54%, compared with 64% for households with higher than normal income and 61% for households with normal income. This may be because of household budget constraints. Households may accurately perceive the likelihood of death in the current year as very low, and, thus, temporarily terminate a life insurance policy if household income falls below normal income. Conversely, when household income is above normal income, households may feel less of a constraint on the household budget and use this extra income on life insurance, something they otherwise were not willing to own. Current income was positively related to the likelihood of owning any life insurance and to the likelihood of owning cash value life insurance, but not to the likelihood of owning term life insurance. Given that employment status is controlled, the lack of significance is reasonable, as an employer group life insurance is something that is available for many employees without having to make a purchase decision.

For the relationship between employment status of the head and life insurance ownership, assuming other household characteristics had the mean levels for 2016, households headed

Table 4 Logistic regression analysis, the association between comprehensive financial planner use and the likelihood of life insurance ownership, 1998–2016 SCF

	Any life insurance		Term life insurance		Cash value life insurance	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Use of comprehensive financial planner	0.3727***	0.0425	0.2117***	0.0356	0.2989***	0.0364
Survey year	−0.0230***	0.0021	0.0169	0.0020	−0.0398***	0.0022
Intercept	44.0071***	4.2934	−5.6204	3.9183	75.8085***	4.3208
Other control variables	Yes		Yes		Yes	
Mean concordance	75.9%		71.3%		71.7%	

Note: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Unweighted analysis with RII technique. $N = 35{,}667$. Control variables include the independent variables shown in Table 3.

by an employee had the highest predicted likelihood of owning life insurance, 68%, presumably partly because of the availability of group life insurance from many employers. Group insurance may be provided for free or at reduced rate as an employer benefit. Additionally, group life insurance removes the barrier of having to have a medical exam to be insured, something that is common in the individual insurance market. This barrier may prevent individuals from seeking life insurance, even if they would qualify for the policy upon completion of the exam. The predicted life insurance ownership rates were only 51% for households with a self-employed head, 49% for households of a retired head, and 40% for households with heads not working but not of retirement age.

For the relationship between the education of the head and life insurance ownership, assuming other household characteristics had the mean levels for 2016, households headed by somebody with a postbachelor degree had a predicted life insurance ownership rate of 65%, and those with a bachelor degree had a predicted rate of 68%, compared with 62% for those with some college but no degree, 57% for those whose highest education is a high school degree, and 44% for those with no high school degree. Higher education levels are likely related to more future oriented thinking (Yuh and Hanna, 2010), which would be consistent with the life insurance ownership patterns shown in Fig. 10.

For the relationship between homeownership status and life insurance ownership, assuming other household characteristics had the mean levels for 2016, homeowners had a predicted ownership rate of 67%, compared with a predicted rate of 47% for renters. Homeowners with a mortgage may need to have life insurance to make sure the loan is paid off if a primary earner dies. Homeownership may also be a signal of financial stability. Typically, homeowners are required to make a substantial down payment to purchase a home, which, for most households requires substantial financial planning. Therefore, homeowners may be more likely to both afford and plan for life insurance.

4.4. The association between use of financial planner and life insurance ownership

Table 4 shows the logistic regression results of the association between the use of comprehensive financial planner and the likelihood of different types of life insurance

ownership, controlling for the other independent variables in Table 3. The SCF did not have a specific code for use of financial planners before 1998, so we used a pooled dataset from the 1998–2016 SCF for this additional analysis. The utilization of a comprehensive financial planner was positively associated with ownership of any, term, and cash value life insurance policies. Households who used a comprehensive financial planner had 45.2% higher odds of owning any life insurance than those without using a financial planner. Similarly, the use of comprehensive financial planner increased the odds of owning term life and whole life insurance policy by 24% and 35%, respectively. Controlling for use of a financial planner did not substantially change the effect of the survey year compared with the results in Table 3, as the survey year had a negative effect for any life insurance and for cash value life insurance, but the effect was not significantly different from zero for term life insurance.

5. Discussion and implication

The effect of the time trend in the logistic regression means that even if the characteristics of households in the United States had not changed between 1992 and 2016, there would have been a substantial decrease in ownership of any life insurance and of cash value life insurance during that period. However, based on the logistic regression in Table 3, ownership of term life insurance might not have decreased if household characteristics had not changed. The trends for some household characteristics related to lower likelihood of life insurance ownership (Hispanic and Asian/other households, unmarried households) might have contributed to lower ownership during the 1992 to 2016 period, but the trends for education and age might have contributed to increased ownership. Overall, changes in household characteristics during the periods played a relatively small role in the decreases in ownership of any and of cash value life insurance, partly because most household characteristics changed slowly. For instance, the proportion of households with married couples decreased from 53.9% in 1992 to 46.8% in 2016, and the proportion of household heads who were employees (vs. self-employed or retired or not working) changed from 55% in 1992 to 56% in 2016.

Insuring human wealth is an appropriate life insurance objective (Chen, Ibbotson, Milevsky, and Zhu, 2006) but even at the current ownership rates, the amount of life insurance is not enough to replace lost human wealth for many households (Mountain, 2015). While the cash-value policy decline may reflect rational decision-making because of changes in tax laws and the increase in tax advantaged investment options, these patterns could change with changes in the federal income tax and with any substantial changes in the federal estate tax.

Durham (2015) found that households often overestimate the cost of life insurance and do so by drastic amounts. When households were asked to provide what they thought a $250,000 20-year term policy would cost, one-quarter overestimated the cost by 625% and one half overestimated the cost by 250%. Meanwhile, life insurance advice from a financial planner is something that families place a low value on (Warschauer and Sciglimpaglia, 2012), making life insurance planning something a family is more likely

to do on its own. While we found higher likelihood of life insurance ownership for households who have a financial planner, we cannot be certain if the financial planner's advice led to life insurance ownership or if households who have life insurance were more likely to seek advice from a financial planner. Future research might use methods to correct for the selection effect, as was done by Kim, Pak, Shin, and Hanna (2018) for analyses of the effect of financial planner use on holding a retirement savings goal.

It is of little surprise that life insurance ownership trends are decreasing when households place little importance on life insurance planning while also dramatically overestimating its cost. If financial planners were to view term life insurance as a loss leader product, or a breakeven product, instead of a profit generator, both the financial planner and client might be better off. As a gateway product, term insurance can help establish trust and rapport with clients. Planners could start by asking the client how much they think a $100,000 20-year term life policy would cost them, and see how that compares with reality. Once the client has the peace of mind that his or family will be financially taken care of upon an untimely death, relatively inexpensively, transition to other planning areas can ensue. This approach would likely benefit financial planners who are following or not following a fiduciary standard, recommendations of term life insurance without direct financial benefit may diminish apprehension some clients might otherwise feel may have when presented with the advice to purchasing life insurance. For clients with more complicated financial needs where cash-value life insurance is appropriate, it may be a product that is brought up later, rather earlier, in the financial plan.

If the ownership rates continue to decline, more and more families will face financial hardship and economic distress if a spouse or partner dies prematurely. In terms of the potential benefits of financial planning advice based on normative economic models, risk management is an important component of the value of advice (Hanna and Lindamood, 2010), and for many families, life insurance still should be a salient component of a financial plan. This is surprising as there are several studies have found that a substantial proportion of households still remain underinsured. Financial planners and educators can better inform their clients and the population as to the merits of life insurance. Additionally, alternative products, adjustments to the current life insurance products, or additional saving will need to fill the void of the disappearing life insurance.

Given our conclusion that the decreases in ownership of any life insurance and in ownership of cash value life insurance were not because of changes in household characteristics between 1992 and 2016, it is plausible that future changes in federal income tax and estate tax policies could lead to future increases in life insurance ownership. For instance, if a proposal by Senator Bernie Sanders to decrease the estate tax exemption from $11.4 million in 2019 to $3.5 million (2009 level) were to be implemented, many wealthy households would likely make substantial changes in their estate planning (Shenkman, 2019), and cash value life insurance might provide one type of strategy. Further, proposed increases in federal income tax rates might also make cash value life insurance more attractive. Even if no near-term tax legislation is passed, most individual income tax changes in the Tax Cuts and Jobs Act of 2017 are set to sunset January 1, 2026. The increases in income tax rates might nudge households to reconsider cash-value life insurance policies.

Appendix 1 Life insurance variables in the SCF

Variable	Description
X4001	Do you (or anyone in your family living here) have any life insurance? Please include individual and group policies, but not accident insurance. 1. *YES 5. *NO
X4002	The two major types of life insurance are term and cash-value policies. Term policies pay a benefit if the insured person dies, but otherwise have no value. They are often provided through an employer or union, but may also be bought by individuals. Cash-value policies also pay a death benefit, but differ in that they build up a value as premiums are paid. Are any of your (family's) policies term insurance? 1. *YES 5. *NO 0. Inap. (no life insurance: X4001^ = 1)
X4004	Do you have any policies that build up a cash value or that you can borrow on? These are sometimes called 'whole life', "straight life," or "universal life" policies. 1. *YES 5. *NO 0. Inap. (no life insurance: X4001^ = 1)

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