

FACTORS ASSOCIATED WITH OWNERSHIP IN SMALL BUSINESS RETIREMENT PLANS

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Introduction

Only 37% of employees at small private-sector firms participated in some sort of employer-sponsored retirement plan in 2007 (BLS, 2007). This participation rate has remained relatively stagnant over the last 20 years--only 36% of employees at small private-sector firms participated in an employer-sponsored retirement plan in 1990 (BLS, 2001). While much of the previous literature has studied retirement savings among workers and employees, little empirical research has investigated factors associated with small business retirement plans (Lichtenstein, 2010). The purpose of this paper, therefore, is to determine, using data from the Survey of Consumer Finances, which household characteristics are associated with ownership in small business retirement plans.

Literature

The Savings Incentive Match Plan for Employees (SIMPLE) and the Simplified Employee Pension (SEP) plan are two major retirement plans intentionally designed to help small employers save for retirement. SIMPLEs were created by the American Job Creation Act of 1996 and codified under IRC Section 408(p)(2001). In order to participate, employers must have no more than 100 employees and offer no other retirement plan. Further, in exchange for making mandatory employer contributions (either 3% dollar-for-dollar match on employee's elective contributions or 2% non-elective contribution to all eligible employees accounts), the plan is not subject to the more costly and burdensome nondiscrimination tests of qualified plans. The maximum amount an employee may elect to defer in a SIMPLE is \$11,500 (\$14,000 if age 50 or older) in 2010 and 2011. Employee elective deferral contributions and employer contributions are deductible by the employer and remain fully vested by the employee at all

times. The Revenue Act of 1978 created Simplified Employee Pension (SEP) plans, which are described in IRC Section 408(k) and may be used for employers who do not already sponsor a retirement plan. Similar to SIMPLEs, earnings on contributions grow tax-deferred and contributions are fully deductible by the employer and fully vested by the employee. In contrast, only employers make contributions to SEPs, although those contributions are discretionary (employer may decide from year to year whether to contribute). However, when made contributions must be the same percentage for all eligible employees. Contributions to SEPs may not exceed 25% of employee compensation up to a maximum of \$49,000 in each year 2010 and 2011.

Despite the fact that SIMPLE and SEPs have been available for at least a decade they have experienced minimal growth. In 2004, only 1.57 million taxpayers reported owning SEP accounts and 1.94 million taxpayers reported owning SIMPLE IRA accounts (Kobe, 2010), both of which are small when you consider the total U.S. population was 293.0 million in 2004 per the U.S. Census. Popkin and Company (2005) report that cost per employee to administer employee benefits is higher among smaller employers, thus discouraging participation in small business retirement plans relative. After similarly noting the lack of growth of small business retirement plans over the years, Topoleski (2011) propose that lack of small business retirement plan participation is likely due to the fact that small employers are more likely than larger businesses to go out of business in any given year. While these previous studies suggest at what might contribute to small business retirement plan participation, little empirical research has actually been performed to investigate different factors associated with ownership in such plans. This paper seeks to help fill this gap by studying which quantitative or qualitative factors, such as

having access to a financial planner, influence ownership of tax-deferred retirement plans among the self-employed.

We frame the likelihood of owning a small business retirement plan as follows:

Likelihood Self-Employed Owning a Tax-Deferred Retirement Plan==

$f(\text{Financial Planner, Marginal Tax Rate, Liquidity Savings Needs, Other Demographic})$

We hypothesize that self-employed households, after controlling for demographic characteristics, that have access to a financial planner, higher marginal tax rate, or strong retirement savings motive are more likely to own a tax-deferred retirement plan, while households with greater liquidity savings needs are less likely to own a tax-deferred retirement plan. In addition, older (up until retirement), more educated, and wealthier are more likely to own a SEP or SIMPLE. Given that this is a cross-sectional survey, survey years, in addition to other demographic variables, are included in the model to control for any specific year effects.

Methods

Data

The Surveys of Consumer Finances (SCF) is a triennial cross-sectional survey sponsored by the Federal Reserve Board (FRB) and includes details on household education, wealth, finances, employment, and other factors important for this study (such as whether the household owns a SEP or SIMPLE plan). In order to focus in more recent years, the sample of self-employed households during SCF survey years 2004 and 2007 were included in this study, which resulted in a total sample size of 2,531. Given the oversampling of wealthy respondents inherent in the SCF, descriptive data in this survey was weighted using the sampling weights provided by the Federal Reserve Board in order to present nationally representative descriptive

statistics. Further, given the use of multiple imputed data, the repeated-imputed inference (RII) technique was used in our regression analysis (Montalto and Sung, 1996).

Empirical Model and Coding

Given our interest in examining the factors associated with the likelihood of a self-employed household owning a tax-deferred retirement account, the following logistic regression model is developed:

$$\log(p_i/(1 - p_i)) = \beta_0 + \beta_1 \text{Financial Planner}_i + \beta_2 \text{MTR}_i + \beta_3 \text{Liquidity}_i + \beta_4 \text{IncUncertain}_i + \beta_5 \text{EconWorse}_i + \beta_6 \text{RetSavMotive}_i + \beta_7 \text{Age}_i + \beta_8 \text{Age}^2_i + \beta_9 \text{CollDegree}_i + \beta_8 \text{White}_i + \beta_9 \text{FinAsset}_{2i} + \beta_{10} \text{FinAsset}_{3i} + \beta_{11} \text{FinAsset}_{4i} + \beta_{12} \text{FinAsset}_{5i} + \beta_{13} \text{Year07}_i + \varepsilon_i$$

In this model, p_i = the probability that self-employed household i owns a tax-deferred retirement plan (Keogh, IRA, or SEP/SIMPLE IRA plan). A household is determined to own a tax-deferred retirement plan if it owns a Keogh, IRA, or SEP/SIMPLE IRA plan. A household that reports a financial planner as one of its top three sources when seeking information for savings and investing decisions is considered having access to a financial planner (coded 1). The marginal tax rate of the household was calculated using the TAXSIM coding developed by Kevin Moore of the National Bureau of Economic Research.¹ Marginal tax rate is expected to be positively related to small business retirement ownership for two reasons: the deduction for contributions increases as tax rate increases and marginal tax rate is positively related to greater income. Three variables were created to proxy for uncertainty that the household business will survive—a measure for liquidity, uncertainty in future income, and poor future expectations of the economy. Applying a similar proxy for liquidity constraints within the SCF used by Amromin, Huang, and Sialm (2007), a household is considered to be liquidity constrained if it

¹ This code can be accessed for all SCF years at the website <http://www.nber.org/~taxsim/to-taxsim/scf/>.

was (a) turned down for credit at least once during the last five years, or (b) was not able to obtain credit later or discouraged from applying again, or thought it might be turned down so it didn't apply. The SCF asks the household whether it usually has a good idea of what the next year's income will be. If the household reported "no" then we coded the IncUncertain dummy variable 1. The SCF asks the household whether it believes the U.S. economy will perform better, worse, or about the same as it has over the past five years. Being liquidity constrained, having uncertain income and expecting the economy to perform worse are all expected to be negatively related to owning a tax-deferred retirement plan. If the household reported "worse" then we coded the EconWorse dummy variable 1. If the household reported that its primary savings motive was saving for retirement or old age then we coded the RetSavMotive dummy variable 1. Age and age squared are used to proxy for savings at life cycle stages. We expect age to be positively related while age squared negatively related to owning a tax-deferred instrument since households are more likely to save up until retirement and then stop saving after retirement. If the head of household reported having a college degree, we coded the CollDegree dummy variable 1. If a household best described themselves as being White or Caucasian versus part of another race category (i.e. Black/African-American, Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, other) then the household was considered white (coded 1); otherwise the household was considered non-white (coded 0). After adjusting for inflation using the CPI index and same methodology employed by the Federal Reserve Board when reporting on the SCF, quartiles of financial assets were created. Finally, dummy variables for each SCF survey year were included. It is hypothesized that a self-employed household holding a college degree, having greater financial assets, or being in the 2007 SCF survey year is more likely to own a tax-deferred retirement plan.

Results and Conclusion

Table 1 presents descriptive statistics for self-employed non-tax-deferred owners and self-employed tax-deferred owners. The descriptive statistics are consistent with the direction of our expectations regarding tax-deferred owners—33.54% have access to a financial planner (15.83% for non-tax-deferred owners), have an average marginal tax rate of 24.69% (14.35% for non-tax-deferred owners), 8.75% are liquidity constrained (31.59% for non-tax-deferred owners), 34.23% report uncertain income (44.73% for non-tax-deferred owners), 19.59% expect the economy to worsen over the next five years (27.42% for non-tax-deferred owners), 51.71% have a strong retirement savings motive (34.46% for non-tax-deferred owners), have an average age of 52.27 (45.92 for non-tax-deferred owners), 65.48% have at least a college degree (36.51% for non-tax-deferred owners), and 63.5% are in the highest quintiles of financial assets (24.61% for non-tax-deferred owners).

Results among self-employed households are shown after controlling for factors in the logistic regression model as displayed in Table 2. Households with access to a financial planner almost 30% more likely to own a tax-deferred retirement plan. As expected, marginal tax rate is positively related to tax-deferred retirement plan ownership. Liquidity constrained households are 50% less likely to own a tax-deferred retirement plan and households that expect the economy to worsen over the next five years are 32% less likely to own a tax-deferred retirement plan. Households with retirement as a primary savings motive are 40% more likely to own a tax-deferred retirement plan and those headed by someone with at least a college degree are 66% more likely to report having a tax-deferred retirement plan account. White households, on average, are almost 90% more likely to own a tax-deferred retirement account than non-white households. Consistent with our expectations, the linear coefficient for age is positive and the

coefficient for age squared is negative suggesting that, consistent with life cycle theory, savings should be positive as one ages and eventually decreases when entering retirement. As financial asset quintile increases, the likelihood of owning a tax-deferred retirement plan steadily increases (with a household in the 5th quintile being over three times as likely to own a tax-deferred retirement plan account, on average, than households in the 1st quintile). No statistically significant difference exists between years 2004 and 2007. While income uncertainty was not statistically significant, its negative coefficient was consistent with expectations. These results show that, among self-employed households, those with access to a financial planner, higher marginal tax rate, greater retirement savings motive, older (up to retirement), more educated, white, and with greater financial assets are more likely to have a tax-deferred retirement account while households with greater liquidity constraints or expectations of the economy to worsen are less likely to own a tax-deferred retirement plan.

Results from this study highlight factors that are more likely to lead to increased participation among self-employed households in tax-deferred retirement plans. Given the government's desire to increased participation in small business retirement plans, results from this paper suggest that creating policies that improve access to financial planners, encourage increased education and provide greater liquidity to small business owners should lead to increased participation in retirement plans. While the Department of Labor (DOL) and Internal Revenue Service (IRS) joined together to create brochures on the advantages of different small business retirement plans, Kobe (2010) suggest that these brochures and education on these plans could be more widely distributed. Thus, placing these brochures or providing education in places where small business owners are more likely to be found could potentially increase participation. In addition, providing greater immediate liquidity to small business owners who

contribute to tax-deferred retirement vehicles could facilitate greater participation. Perhaps this could be accomplished by combining more targeted education with allowing small business owners the ability to borrow from all types of their plans (including SEPs or SIMPLEs).

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Table 1 Descriptive Statistics of Non- Tax-Deferred Owners and Tax-Deferred Owners

Variable	Non- Tax-Deferred Owner	Tax-Deferred Owner
Financial Planner	15.83%	33.54%
Marginal Tax Rate	Mean=14.35%	Mean=24.69%
<i><u>Liquidity Savings Needs</u></i>		
Liquidity Constrained	31.59%	8.75%
Income Uncertain	44.73%	34.23%
Expect Economy Worsen	27.42%	19.59%
Retirement Savings Motive	34.46%	51.71%
<i><u>Demographic</u></i>		
Age	Mean=45.92	Mean=52.27
College Degree	36.51%	65.48%
White	74.46%	90.82%
Financial Assets		
1 st Quintile	21.69%	7.91%
2 nd Quintile	33.41%	9.85%
3 rd Quintile	20.29%	18.74%
4 th Quintile	15.00%	27.81%
5 th Quintile	9.61%	35.69%

Table 2 Logistic Regression Results for Self-Employed Owners of Tax-Deferred retirement plans

Variables	Coefficients	Odds Ratios	Standardized Coefficients
Financial Planner	0.257*	1.293*	0.063
Marginal Tax Rate	2.677***	2.678***	0.19
<u>Liquidity Savings Need</u>			
Liquidity Constrained	-0.689***	0.502***	-0.125
Uncertain Income	-0.059	0.942	-0.016
Expect Economy to Worsen	-0.331**	0.718**	-0.075
Retirement Savings Motive	0.335***	1.398***	0.092
<u>Other Demographic</u>			
Age	0.171***	1.187***	1.162
Age-squared	-0.001***	0.999***	-1.094
College Degree	0.504***	1.656***	0.13
White	0.638***	1.893***	0.112
<u>Avail Fin. Assets (1st Quintile)</u>			
2 nd Quintile	0.199	1.221	0.034
3 rd Quintile	0.814***	2.256***	0.138
4 th Quintile	1.065***	2.900***	0.209
5 th Quintile	1.164***	3.203***	0.319
Year (2004)			
2007	0.007	1.007	0.002
Intercept	-6.973***	0.001***	-
<i>N</i>		2,531	
Max-rescaled R ²		0.2838	

*p < .10; **p < .05; ***p < .01