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Citation of the final article:
Bird, Ron, Foster, F. Douglas, Gray, Jack, Raftery, Adrian M., Thorp, Susan and Yeung, Danny 2018, Who starts a self-managed superannuation fund and why?, *Australian journal of management*, vol. 43, no. 3, pp. 373-403.

DOI: http://www.dx.doi.org/10.1177/0312896217747331

Who starts a self-managed superannuation fund and why?

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Abstract

Self-managed superannuation funds (SMSFs) – small retirement savings funds with four or fewer members – now manage almost one third of retirement savings in Australia, and serve over one million members. The number of SMSFs has increased to more than half a million in two decades, yet little is known about the reasons people start the funds and how they operate. We use a survey of more than 500 SMSF members and 500 large superannuation fund members to analyse why SMSF members commence and manage their own fund, compared to similar people who stay with a large fund. We find that control over investments and tax minimisation are the most common reasons for starting a SMSF while satisfaction with large funds and unwillingness to take on the administrative burden of self-management are the most common reasons for not doing so. SMSF members do not show any greater financial skills than non-members, but they do display overconfidence, a higher risk tolerance and a more trusting attitude to financial professionals. Model results show that the majority of SMSF members start their funds at the suggestion of financial professionals. We also show that those who say they are thinking about starting a SMSF are different in significant ways from the eventual SMSF members, further evidence of the influence of the advice industry.

Keywords: self-managed superannuation funds, pension funds, SMSF choice, financial literacy

Acknowledgements: This research has been supported by the Centre for International Finance and Regulation - project number E220 (see www.cifr.edu.au). We thank participants at the Paul Woolley Centre Conference, UTS, 2014, and the CIFR Superannuation Showcase, March 2016 for helpful comments. We thank the Institute for Choice (UniSA) for expert assistance with the survey and Yvonne Gray for excellent administrative assistance. The University of Technology Sydney gave ethics approval (2014000453) which was accepted by The University of Sydney.

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Who starts a self-managed superannuation fund and why?

1. Introduction

The Australian superannuation system has grown in value more than ten-fold over the past two decades, to in excess of AUD$2.3 trillion, largely as a result of the introduction of mandatory superannuation in 1992 (Association of Superannuation Funds (ASFA) 2016). Historically, retirement savings in Australia have been managed by large retail, industry and corporate funds which are regulated by the Australian Prudential Regulation Authority (APRA). However as individual balances have grown in importance to households, together with the legislative change that allows people to manage their own retirement savings, self-managed superannuation funds (SMSF), regulated by the Australian Taxation Office (ATO), has become by far the nation's most numerous type of retirement saving fund.

SMSF house almost one third of the nation's total retirement savings (thus they are the largest category by asset size) and serve more than one million members, therefore how their funds are invested and the returns they realise has implications not only for the welfare of SMSF members but also for the wider economy. Despite the importance of the SMSF group, little is known about their operations or the motivation or satisfaction of members.

The significant growth of SMSFs over the past two decades has raised questions about who has decided to move away from an APRA-regulated superannuation fund to start a SMSF and why. The Super System Review (2009) reports results from an ATO survey of trustees of newly-established SMSF. The survey shows that a desire for greater 'control' of and flexibility over investments, better performance and better tax planning as the main reasons why people create their own fund. Also, it shows whom SMSF members mostly consulted for advice when they established their fund.

In this paper, we redress critical gaps in what is known about the reasons why people establish SMSFs. We survey more than 1000 superannuation fund members, split between SMSF and non-SMSF members, and collect information on the motivation of those who joined SMSFs between 1990 and 2015. Our approach is new in several ways. First, because we collect data from a range of types of members, we can directly contrast responses of SMSF members with similar respondents who maintain membership of a large fund or who switch their retirement savings from an SMSF to a large fund. This means we can identify the distinct, governing influences on SMSF commencement and continuation, and test, for example, the importance of financial literacy or psychological traits, while controlling for the effects of general demographics found in earlier studies. Second, we enquire about the main activities of members shortly after joining or establishing a SMSF, and compare this with their initial plans. This gives new insight into the degree to which SMSF members' experiences match their plans so that we can predict likely sources of satisfaction or discontent. Third, while earlier work has shown that financial advisors matter to SMSF establishment, we measure the *relative importance* of financial professionals to the establishment and operation of SMSFs compared with the members themselves and other influences. Fourth, we conduct a new in-depth analysis of the different probable characteristics of current, potential future and former membership of a SMSF including age, gender, income, education, risk tolerance, numeracy, financial and SMSF literacy, overconfidence and internal locus of control. This novel analysis find the material and significant factors that explain the differences between superannuation fund members at different stages of engagement with SMSF.

We report four main findings into the reasons that fund members and their advisers plan to start a SMSF. First, we identify that the two most common factors that influence people to either join or consider joining a SMSF are the opportunity to participate in the investment of the fund assets and to minimise tax. Contrary to popular belief that the range of additional investment options in SMSFs entice individuals to shift funds from APRA-regulated funds, we find that investments in property and related opportunities to borrow, or in collectibles, are not important reasons for the creation of SMSFs. This is important as SMSF regulators have been under pressure to ban such options (Financial System Inquiry 2014; Stewart 2017). Second, despite these self-reported reasons for SMSF establishment, we find that the three things members are most likely to do upon joining a SMSF is to invest in Australian shares, increase their superannuation contributions and move to a safer investment strategy, often by placing more funds on term deposit. Members of APRA-regulated fund can do all of these, although large funds have enabled direct investment by members relatively recently.

Third, consistent with the Super System Review (2009), we find that most current SMSF members are influenced by financial planners or accountants to either establish, or join, a SMSF. Members of SMSFs attribute sound motives and trustworthiness to financial professionals at significantly higher rates than non-members. Our analysis suggests the view that the good impression of advisers held by SMSF members is formed when the SMSF is put into operation, a process for which people need professional help. Further, SMSF members do not display a level of financial literacy that is any different to non-SMSF members and that they rely on professional advice to cover gaps in their own knowledge.

Last, our results indicate that people who are overconfident in their financial literacy are significantly more likely to be SMSF members. This confidence shows up in risk tolerance as well – SMSF members say they are more willing to accept risk in financial matters than do non-SMSF members. However, SMSF members do not have a measurably higher internal locus of control – the confidence in one's personal ability to control outcomes in general. Their preference for control relates primarily to their perceived freedom to choose and monitor specific investments. Although individuals like having the potential for control, we find that most do not seem to utilize it with respect to their SMSF.

The remainder of the paper is structured as follows. In Section 2, we provide background information on the SMSF sector. Section 3 describes the online survey, its sample and the design of the choice and multivariate models. Section 4 outlines the results while Section 5 concludes with our reflections on the findings and suggestions for future research.

2. Background

Although it has its origin around 1850 when banks, large private companies and governments started to pay private pensions to senior, long-serving employees, the modern era of superannuation in Australia began with the introduction of compulsory contributions for most employees in 1992. The initial required rate of contribution of 3% of salary has gradually risen to the current 9.5%, with plans for it to peak at 12% over the next decade. Not surprisingly, compulsory contributions and generous tax subsidies have caused a rapid growth in the savings held in superannuation, with total superannuation assets now exceeding AUD$2.3 trillion, making the pool of Australian retirement savings the fourth largest in the world (APRA 2017; Willis Towers Watson 2017).

Initially almost all superannuation fund assets were spread across retail and not-for-profit (industry, corporate and public sector) funds – that is, APRA regulated funds - under the control of external fund trustees. In Figure 1, we plot the shares of the segments of the superannuation sector on an annual basis for the past two decades. The most striking aspect of this graph is the growth in assets held in SMSFs. SMSFs did not exist before 8 October 1999, when the *Superannuation Industry (Supervision) Act 1993* was amended to change the regulatory arrangements for 'small' superannuation funds (those with fewer than five individuals as members).[5,6] From that time, the assets managed by SMSFs grew rapidly so that by 2009 they were the largest segment of the market. By mid-2017, the assets of SMSFs represented 30% of the total superannuation assets, followed by retail funds (25%), industry funds (23%), public sector funds (11%), corporate funds (6%) and other (5%) (APRA 2017). At that time there were approximately 596,000 SMSFs with average assets in excess of AUD$1.17M, and with slightly less than two members per SMSF, the average balance in each account was just over AUD$578,000 (ATO 2017).

(Insert Figure 1 here)

[5] Before this date, all superannuation funds were regulated by APRA and were categorised as follows: corporate superannuation funds, public sector superannuation funds, industry superannuation funds, retail superannuation funds, rollover funds and excluded superannuation funds. The amendments created a new category of superannuation fund, the SMSF, to be regulated by the ATO rather than APRA. The previous excluded funds were given a one-off opportunity to become SMSFs or remain under APRA and become known as small APRA funds (SAFs). Members of SAFs can have input into investment decisions, but do not have the direct investment control enjoyed by SMSF members as administrative duties and responsibilities must be provided by an external approved trustee (Sy 2010; Roberts 2011, 2012). With the costs of running a SAF being greater due to trustee remuneration expenses and higher regulatory fees, combined with the lack of control, the majority of excluded funds elected to become SMSFs. Only SAF trustees are allowed to receive remuneration for providing services to the pension fund and the minimum annual supervisory levy in 2016/17 charged by APRA is AUD$590 compared to the AUD$259 levy being charged by the ATO for SMSFs.

[6] A SMSF is a pension fund with less than five individuals where all members are either trustees or directors of a corporate trustee. SMSFs are unique to Australia, in that they allow individuals to have direct control over their retirement assets. Their popularity in their current form is an indication that they are viewed by many retirement savers as representing an attractive option for accumulating assets to fund retirement. There is limited literature on pension funds in Australia in general and on self-managed superannuation funds (SMSFs) in particular, with most literature focusing on the industry, public sector, corporate and retail funds.

Consistent with its economic importance, the Government, in 2009-10, commissioned the Super System Review (2010) into the governance, efficiency, structure and operation of Australia's superannuation system. The Review report makes the following observation about SMSFs:

> *"The level and quality of information available on SMSFs and the SMSF sector is inadequate given its significance (as Australia's largest superannuation sector by value)."*
>
> Super System Review (2010), p. 217.

Despite the importance of SMSFs, little research has been conducted into them to date (Benson et al. 2014; Benson et al. 2015). The few studies that have concentrated on SMSFs have focused primarily on their investment performance, asset allocation and expenses (Phillips et al. 2007; Phillips 2011b; Valentine 2011; Mackenzie 2011a; Mackenzie 2011b; Arnold et al. 2017; ASIC 2013; Rice Warner Actuaries 2013; ATO 2014), rather than the justifications used by members for starting them.

Large numbers of people have moved into SMSFs since choice of fund legislation in 2004 made this easier (*Superannuation Legislation Amendment (Choice of Superannuation Funds) Act 2004;* Clare 2006*)*. Although recent retirement savings policies, such as MySuper, favour 'libertarian paternalism' where individuals are defaulted or nudged into choice patterns designed to compensate for a lack of interest or capability (Bateman et al. 2014; Thaler and Sunstein 2003; Benartzi and Thaler 2002; Benartzi and Thaler 2013; Brown 2016), rates of switching between large funds have been low, but the volume of funds moving into SMSFs, as seen in Figure 1, has been high.

This contrast raises questions as to what motivates people to move to SMSFs in such volumes when they do not switch between large funds.[7] Several reasons have been proposed by earlier studies. First, a 2008 questionnaire of 2423 trustees of newly established SMSFs conducted by the ATO shows that a desire for greater 'control' (86% of respondents) and flexibility (64%) of investments, better performance (53%) and better tax planning (36%) as the common reasons for SMSFs (Super System Review 2009). Also, it shows that SMSF members mostly consulted tax agents/accountants (72%) and financial planners (42%) for advice when establishing their fund. While the ATO study reports that SMSFs offer a range of perceived advantages and attractions, our study tests the relative importance of these reasons to people who have started their own personally-managed superannuation fund.

Second, SMSFs may carry lower management and administration fees compared to accounts in APRA-regulated superannuation funds. However, Arnold et al. (2015) argues that while there may be cost advantages in running a SMSF above a minimum size, a large proportion of funds are established with low balances resulting in comparatively higher costs. A recent Parliamentary Joint

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[7] The extant superannuation literature primarily focuses on large APRA-regulated superannuation funds. This, in part, is likely to be a function of data availability. The largest data set in an existing study of SMSFs is 150 observations gleaned from one accounting practice in a single community (Phillips 2011a and all references therein).

Committee inquiry found that SMSF trustees lack basic knowledge of the costs associated with their fund (Parliamentary Joint Committee on Corporations and Financial Services 2012). Further, Thorp et al. (2017) find that SMSF tasks are normally either shared with, or delegated completely to, professionals and that members usually spend little time managing their SMSF and rarely trade securities for themselves.[8] Our analysis considers the time and money commitments of SMSF trustees in more detail.

Third, SMSFs can also better facilitate tax and estate planning. Although all payments into, and investment returns of, superannuation are tax-advantaged, a SMSF provides more opportunity to customize, and therefore to maximize, the available tax benefits (Super System Review 2009). Transition to retirement (TTR) strategies are one example. In a TTR strategy, a member over 55 years of age can take a pension while still working and contributing, and consequently all the earnings of the fund becoming tax-free.[9] If structured appropriately SMSFs can also be an effective vehicle for estate planning. The distribution of the fund's assets can be clearly specified. Further, the SMSF can consolidate the superannuation of up to four family members, can facilitate efficient inter-generational wealth transfer to children who remain as trustees after their parents' death and be tax-effective in the distribution of the assets to both dependents and non-dependents.

Fourth, a SMSF may better satisfy several behavioural needs of fund members. Examples include a need for control and a need to direct investments (Super System Review 2009). APRA-regulated fund assets are held in the name of the trust and so are effectively owned by the trust. Although members of a large fund usually are given many investment options for their share of the assets, some people want to feel as though they have the more direct control of the assets afforded by a SMSF. Along with this greater perceived control comes the possibility of being more directly involved with the management of the assets as opposed to delegating that to fund managers. This greater control and involvement are likely to come at the cost of time involved and greater legal liability. We test for several of these causes using inventories of questions tested in other contexts and assess the importance of these claims.

Fifth, a reason for establishing a SMSF may be dissatisfaction with one's current fund and other alternatives. This dissatisfaction can arise from poor investment performance, excessive aggression or caution, high expenses and/or poor communication. We consider the likelihood that these reasons are not relevant to the establishment of a SMSF; rather it is the result of following the advice of others including accountants, financial planners, family and friends.

Our study provides insights into the real-world significance of each of these conjectures by examining a number of characteristics of those who chose to join SMSFs and the major factors that caused them to do so.

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[8] See also Jain and Raftery (2015).

[9] The 2016-17 Federal Government Budget proposed an increase to 15% for the tax on earnings of funds in TTR arrangements. See http://www.budget.gov.au/2016-17/content/glossies/tax_super/downloads/FS-Super/12-SFS-Improve_integrity_of_transition_to_retirement_income_streams.pdf

3. Survey, Sample and Research Design

We conduct a survey to gather information on the factors that motivate people to establish or join a SMSF and contrast their responses with those who maintain membership of a large fund or who switch their retirement savings from an SMSF to a large fund. We enquire about what the main activities of members are shortly after joining or establishing a SMSF and how financial professionals enable the establishment and operation of SMSFs. Finally, we conduct an in-depth analysis of the different probable characteristics of current, potential future and former membership of a SMSF by collecting demographic data on the respondents, information on their views, ability and training, and data on the factors that decide if they participate in a SMSF or not. We aim to identify the most (and least) important factors and to assess whether the motivation is related to various personal characteristics (for example, age, wealth, gender and risk tolerance) or to their ability and interest (for example, financial literacy, numeracy and SMSF knowledge).[10] The Appendix provides excerpts of survey questions.

We survey 1018 people between the ages of 24 and 74 from the PureProfile panel consisting of a nationally-representative sample of over 600,000 Australians. The survey was administered in September-October 2014 by email invitation from PureProfile. Panellists who responded to the email invitation were filtered for eligibility and invited to continue. We paid respondents who completed the survey around AUD$4 for their participation. The entire survey is available at http://survey.confirmit.com/wix/p3070318055.aspx.

Table 1 compares the demographic data from the survey participants, split between SMSF and non-SMSF respondents, to the 2011 Australian Population Census. Participation in the the survey requires that all respondents are current members of a superannuation fund. We also filter respondents so that almost 50% (505) are current members of a SMSF. A small proportion of non-SMSF members (24 out of 513) had, in the past, been a member of a SMSF.[11] In order to match age patterns in SMSF membership reported by the ATO (2014), we filter the sample further to ensure that approximately 60% of the SMSF respondents were over the age of 55, resulting in a higher proportion in this age category and commensurately lower numbers between ages 25 and 54. This compares with only 31% of non-SMSF respondents in the same age bracket. A sample of superannuation fund members will necessarily exclude many young adults because they are usually not entitled to any employment or retirement benefits so the sample will be, on average, older than the general adult population. For related reasons, the average level of education and earnings, and rates of marriage or de facto relationships are higher in the sample than in the general population. The difference in earning capacity between the two groups in the sample is small, with 64% of the SMSF members earning more than AUD$1000 a week compared to 59% of the non-SMSF respondents.

[10] A number of studies have analysed financial literacy and how it relates to retirement planning (Agnew et al. 2013; Earl et al. 2015; Gerrans et al. 2009).

[11] We originally sample 1019 but drop one respondent from the analysis whose report of net wealth and income were inconsistent. This reduced the number of SMSF members in the sample from 506 to 505.

(Insert Table 1 here)

Choice model

Survey participants rank a list of potential reasons for thinking about joining, deciding not to join, or actually joining a SMSF. We want to know the reasons most people choose for (or for not) joining a SMSF, as well as what about their retirement savings strategies have changed as a consequence of SMSF membership.

Based on previous research and discussions with people in the industry, we choose a series of statements representing 21 factors which could explain the decision to join a SMSF (see Excerpt 6 of the Appendix for the full list of statements). These statements include advice received from a third party, dissatisfaction with the current fund, a desire to have more control or more flexibility in investing, and the ability to more efficiently operate the fund.

The list of statements are shown to respondents in a Balanced Incomplete Block Design (BIBD) where the statements are allocated to a series of blocks or sets, each containing five statements. We design the blocks so that each statement appears once with every other statement, and in each of the five possible orders of listing. The respondents consider each block and indicate the statement in the block that was most influential in their decision, and that which was least influential.

From these responses we compute a net score, that is the number of times each statement rates as the most influential less the number of times it rates as the least influential. We then standardise the net score for each statement by dividing it by the total number of times the statement appears in a block. The standardised score can vary between 100% and -100%; a large positive score indicates that the view expressed by a statement was strongly influential while a large negative score indicates it was not very influential. Because every respondent must choose both a most and a least influential statement from every block, these percentages sum to zero. We interpret the percentages as an (aggregated) relative ranking of the influence of each statement.

Multivariate models

We use standard logit regressions to estimate the probability that a respondent is a current, intending or former SMSF member. However we adjust the probability weight on SMSF members' responses because they are over-represented in the sample compared to the population of superannuation fund members.[12] We use the estimated models to compute the marginal effects of changes in explanatory variables on the probability a participant is in a SMSF.

[12] In 2014, ATO statistics report 995,286 SMSF members and Australian Bureau of Statistics (ABS) statistics report 12,752,100 superannuation fund members, so that the population rate of SMSF membership was 7.8%, compared with 50% in the sample (ABS 2015; ATO 2014). We thus weighted SMSF members' observations by 0.078/0.5 = 0.156 and non-SMSF members observations by 0.922/0.5 = 1.844.

Table 2 lists definitions of all dependent and explanatory variables. The dependent variables in the models are 1) *SMSF member*, which takes the value 1 if the survey respondent is a member and 0 otherwise; 2) *Intend SMSF*, which takes the value 1 if the survey respondent is not currently a members of a SMSF but is thinking about starting one, and the value 0 if the respondent is not currently a member and not thinking of becoming one; and 3) *Ex-SMSF* which takes the value 1 if the respondent was formerly a member but is not currently and 0 otherwise.

(Insert Table 2 here)

As explanatory variables we consider demographic factors including age, gender, marital status, education, income, whether the respondent is drawing funds from their superannuation account and whether they are a financial professional. We also estimate the relation between membership and several measures of skill, including numeracy, basic financial literacy, subjective financial literacy, SMSF literacy and overconfidence. We define a respondent as ‘overconfident’ if they subjectively rate their own financial literacy as higher than the median but scored below median in the objective test of financial literacy. We also include attitudes to risk tolerance, internal locus of control and attitudes to financial professionals.

For member attitudes, we consider measures of internal/external locus of control, risk tolerance, and trust in/views of finance professionals. The locus of control score is measured using a standard psychological scale developed by Rotter (1966) whose 13 questions are set out in Excerpt 5 of the Appendix. People with a high internal locus of control tend to view events as controlled more by their own actions than by external or environmental factors outside their control.[13] Popular commentary characterises SMSF members as people who enjoy or need control over their retirement savings. Risk tolerance is measured by response to the question “Are you generally a person who is fully prepared to take risks in financial matters or do you try to avoid taking risks?” (see Excerpt 4 in the Appendix). A response of 0 indicates unwillingness to undertake any financial risk while a score of 100 indicates the respondent is fully prepared to take a financial gamble.

4. Results

We begin by providing some univariate comparisons and then develop a choice model to analyse the decision about whether to become a member of a SMSF.

Responses: Frequencies and Proportions of Sample

[13] For each pair of statements they were asked to select the one that best represented their views. For each participant we count the number of times that the non-italicised response in Excerpt 8 was selected, rather than the italicised statement for the same query (survey respondents saw these both identically formatted). Summing these internal control-oriented replies across the 13 statements gives our internal locus of control measure. For those participants with high (above the survey median) internal locus of control scores we record a value of 1. Otherwise we record a value of 0.

In this section of the report we analyse responses to a range of queries about background and superannuation investments and identify some key differences between SMSF and non-SMSF members.

Differences between SMSF and non-SMSF Members

Table 3 reports the differences between SMSF members' and non-SMSF members' responses to a series of questions relating to numeracy, financial literacy, risk tolerance and knowledge of SMSF regulation. As SMSF members have chosen a savings vehicle that gives them greater opportunity to be involved in investment decisions, we expect that they would have higher numeracy and financial literacy than non-SMSF members. We find the opposite to be the case regarding numeracy, with 56% of non-SMSF members correctly answering two or more (out of three) numeracy questions as compared with 47% of SMSF members. A similar but weaker trend applies to financial literacy, with 78% of non-SMSF members correctly answering two or more (out of three) financial literacy questions compared to 73% for SMSF members.

(Insert Table 3 here)

When it comes to the member's self-assessment of their financial skills, SMSF members have a greater confidence in their own ability, with 48% believing they have above average financial skills compared with 36% for non-SMSF respondents. Hence it would appear that SMSF members do not perceive their previously reported inadequacies in the areas of numeracy and financial literacy skills. As a consequence it is not surprising that SMSF members also admit to a higher tolerance for risk, with 43% indicating they have above average risk tolerance as compared to 29% for non-members. Perhaps the key positive finding relates to general knowledge of SMSF regulation; 35% of SMSF members answered two or more (out of four) questions on this topic correctly, compared with only 14% of non-members. However, knowledge of SMSF regulation is weak in absolute rather than relative terms since almost two thirds of SMSF members answered either none or only one question correctly.

Overall the findings suggest that members of SMSFs have a higher than warranted perception of their numeracy and financial literacy skills, have a relatively high risk tolerance and an inadequate knowledge of SMSF regulation. All of which raise potential concerns over how SMSFs are managed and the funds invested. However this is a problem only if members are overly involved in their fund's management and investing.

SMSF Members

Next we focus on the responses of 505 SMSF members who participated in the sample. We are particularly interested in their SMSF experiences as well as how they became members. As a preamble, Table 4 reports the characteristics of the SMSF and former-SMSF members.

Consistent with the rapid growth of SMSFs, we find that 58% were established within the past ten years, although 12% have been in existence in excess of 20 years. In response to the question as to whether their fund had a corporate trustee structure, about one-third said it did and a similar proportion said it did not. Not surprisingly, given members' general lack of SMSF knowledge, 27% did not know whether or not their fund had a corporate trustee.

(Insert Table 4 here)

We find that 45% of SMSFs have a current balance of less than AUD$200,000. This proportion increases to 70% for former-SMSF members, a likely contributing reason for their subsequent demise. At the other end of the range, 13% of current funds have a balance in excess of AUD$1 million.

Although the term SMSF suggests that retirement monies are being 'self-managed', there are a number of family members who do not play a role in managing their superannuation instead leaving decisions to their spouses. When asked about their involvement, 63% of SMSF members described themselves as the main decision-maker, 28% replied that they were joint decision-makers, while 8% replied that they played no role at all.

Table 5 reports on responses to survey questions that concern the initial establishment of a respondent's SMSF. The majority (63%) of the SMSF respondents report that a financial professional (including accountant or financial planner, SMSF administration provider or other financial professional) first started them thinking about setting up or joining a SMSF. Another 20% indicated that it was their own idea to join, and 11% indicate that family or friends made the initial suggestion to operate a SMSF. Media stories or promotion had little influence on the decision.

(Insert Table 5 here)

Almost 72% transferred their entire superannuation balance to the SMSF at the time of establishing or joining it. The actual dollar amount of their transfer varied widely from less than AUD$50,000 to in excess of AUD$3 million. For 63% of those responding to this question, the initial transfer was less than AUD$200,000. Fewer than 2% made an initial transfer in excess of AUD$1 million. Respondents report the annual cost involved with being a SMSF in a range from less than AUD$500 to in excess of AUD$10,000, and time from less than an hour to in excess of five days a month. The median reported annual cost of operating a SMSF is between AUD$2000 and AUD$3000 per year and the median level of members' activity is just one hour per month which is not indicative of much involvement by member-trustees with their retirement monies.

Reported levels of personal involvement correlate with the importance members place on reasons for starting the fund. Table 6 shows the correlation between the number of times a member chooses a statement as the most important reason for starting the SMSF and the time they report spending on their SMSF. We find several statistically significant correlations. Members who stress the importance of involvement, or a wish to choose specific equity or artwork and collectible investments also report spending higher amounts of time on operating their fund, with statistically significant positive correlations in the range of 13% to 17%. Members who put most importance on tax minimisation or TTR arrangements report spending less time on operating their funds, with a negative correlation of between -10% to -14%. Those who want to borrow and/or invest in a wider range of assets also spend less time operating the SMSF. One possible explanation for these patterns is that SMSF members delegate tax minimisation, TTR and borrowing arrangements to advisers or accountants because of the related regulatory complexity, and thus commit less of their own time to the fund's management.

(Insert Table 6 here)

The relatively low median level of SMSF involvement suggests a reliance on professionals to operate the fund. We ask each respondent to state whether they currently or had ever used such professionals. The most commonly quoted functions for which members had used professional help are the establishment of the SMSF (59%), tax advice in relation to the SMSF (55%), auditing the activities of the fund (47%) and assisting in investment activities (41%). Around 80% of members who report that they used the services of financial professionals to help start the fund continued to use them once the SMSF was established. The most common service still used is tax advice (54%), followed by auditing (47%), investments (33%), monitoring (32%) and administration (32%). The fact that the tax advice rated so highly indicates that members see tax planning as an important reason for having a SMSF. It is surprising, although consistent with their lack of SMSF knowledge, that more respondents did not admit to the use of auditors given that annual auditing is mandatory for all SMSFs.

Former SMSF Members

The non-SMSF sub-sample includes 24 respondents (less than 5%) that had once been members of a SMSF. Although the sample size is small, the analysis in Table 7 of some of the characteristics of their experiences might provide insights into future member choices. People who left or closed a SMSF were usually the only member of a small fund with an average balance of less than AUD$100,000 with no corporate trustee. In the majority of cases, the person who left was the sole decision maker (54%), although there are several instances where they made this decision under the advice of professionals (29%). Typically a member stayed with the fund between five to ten years and then returned to a fund similar to that which they left prior to establishing or joining the SMSF.

(Insert Table 7 here)

Choice Modelling

In this section we address the reasons people join a SMSF.

Participant Rankings

Figure 2 presents the scaled most and least influential reasons for those *contemplating* the establishment of a SMSF (based on the 21 statements). Figure 3 provides similar information for those who are *already* SMSF members. As there is very little difference between the rankings of the two groups, we will discuss them together.

(Insert Figures 2 and 3 here)

Many of the statements ranked as very influential for each group relate to the investment process and asset management. The statement ranked as the most important was the opportunity to choose one's own investments. Consistent with this desire to be personally involved with the fund, the respondents also highly valued the opportunity to both manage the funds themselves and choose their own equity investments. The other perceived advantage of having a SMSF that was highly valued by respondents is the opportunity to actively minimise tax, with the opportunity to implement a TTR strategy (an important component of any tax minimisation for impending retirees). The ability to use the fund's assets to purchase a property was highly valued by those contemplating moving to a SMSF whereas this was not viewed as important by those who are already SMSF members.

One factor that is of little importance to establishing or joining a SMSF is dissatisfaction with the previous fund, particularly in areas such as poor communication and risk-taking. Another area of little importance is the opportunity afforded by SMSFs to invest in collectables and to borrow within the fund. Advice from family and friends is not influential for either group, nor is concern about planning for retirement and estate planning. Despite cost being discussed as either an advantage or a disadvantage of a SMSF, it proved not to be a major influencing factor for either group.

Advice received from professionals is rated quite differently. It is valued by those who were already SMSF members, whereas it is considered relatively unimportant for those contemplating membership. This suggests that the influence of professionals is an important reason for people establishing or joining a SMSF. When we look more deeply into this disparity between the groups, we find that those who are already members hold their advisor in high esteem, whereas non-SMSF members are very skeptical of advice from such sources.

Table 8 reports respondents' views on financial professionals in general. We find that the views of current SMSF members are significantly different from those of non-SMSF members. Current members agree that financial professionals mostly act in their clients' best interests and are trustworthy (59%), while the majority (55%) of non-SMSF members rate financial professionals as self-interested and influenced by commissions. Even more interesting, non-SMSF members who say they are thinking about starting a SMSF did not view financial professionals any more favourably than those who are not so thinking; both groups are skeptical about the motives of professionals who might assist them. Interestingly, the few respondents who had closed a SMSF maintain favourable opinions of financial professionals, more similar to current than to non-SMSF members. This pattern is consistent with the notion that the process of establishing and operating a SMSF builds trust between advisors and SMSF members. The attitudes of our admittedly small group of former SMSF members suggests that this trust is not undone when members close the fund. The results we report accord with other studies showing that clients who form favourable views of financial advisors tend to keep them, even when they are not justified by the quality of advice delivered by advisor to clients (ASIC 2012; Mullainathan et al. 2012; Agnew et al. 2016).

(Insert Table 8 here)

Figure 4 shows a summary of the responses from those who are not contemplating moving to a SMSF to a slightly different set of 16 statements (see Excerpt 7 in the Appendix for the full list of statements). The three overriding reasons put forward for not wanting to move are: they are happy with their current fund, they want to avoid the administrative burden of a SMSF and they do not have sufficient investment skills. At the other end of the scale, factors that had little or no importance include: advice from a professional *against* moving to a SMSF, access to insurance and the ability to combine family superannuation. It is interesting to note that the value of their superannuation assets and the cost of running a SMSF are not important factors.

(Insert Figure 4 here)

Multivariate Models

Using estimated models we compute the marginal effect of changes in explanatory variables on the probability a participant is in a SMSF and report them in Table 9. We do not interpret these effects as causal; the models are designed to summarise the characteristics of groups in the sample, not to define causes of group membership. The probability of being a SMSF member is around 8 percentage points higher among people in the 55-65 age group compared to the reference age group of 25-29. In the sample, men are around 3 percentage points less likely to be members than women. This is most likely explained by the relatively small proportion of members over 65 in the sample: ATO data for 2014 show that women SMSF members outnumber men in all age groups up to 65, but that men substantially outnumber women at ages over 64, amounting to a total of 53% men to 47% women across all ages. Decumulators (people who withdraw retirement monies from a superannuation fund) are 9 percentage points more likely to be SMSF members. High income and high school completion are also more likely for SMSF members.

(Insert Table 9 here)

We uncover a complex relationship between financial skill and SMSF membership. A higher level of numeracy decreases the likelihood of being a SMSF member whereas general and specific financial literacy scores on their own have no statistically significant impact. However, overconfident people (who combine below median financial literacy scores and above median subjective financial literacy) are around 5 percentage points more likely to be members, conditioning on all other explanatory variables. These findings from the logit model confirm the worrying suggestion from the earlier discussion that those who chose to join a SMSF are likely to have relatively low levels of financial literacy and numeracy but considerable confidence. Unsurprisingly, a higher score in the SMSF literacy test is associated with a higher likelihood of membership, although this is relative to a low base, with the absolute level of SMSF literacy of members being disappointingly low.

Several psychological traits and attitudes are more common among SMSF members. Although we find that the sign of the estimated marginal effect of an above median score on locus of control is positive, the coefficient proves to be insignificant. This result shows that SMSF members do not have a stronger sense of self-efficacy than non-SMSF members. We estimate that members of SMSFs have a higher tolerance for risk with a 10 point increase on this scale associated with a 1 percentage point rise in the probability of SMSF membership. Consistent with the previous discussion, we find that there is a significant relation between attitudes to financial professionals and SMSF membership: people who say that financial professionals act in the best interests of clients and/or generally can be trusted are 2 percentage points more likely to be SMSF members than those who do not.

In summary, the probability of SMSF membership rises at older ages, for females and for people who are drawing down on their funds. Further, we find that SMSF members are more likely to display a seemingly dangerous combination of overconfidence and a higher tolerance for risk with relatively low financial literacy and numeracy skills. Our findings confirm that SMSF members have greater faith in (and use the services of) financial professionals which might compensate to a certain extent for any inadequacies in their skills and knowledge of the operational and regulatory aspects of SMSFs.

We compare the group of non-SMSF members who say they are thinking about starting a SMSF with those with no intention in Panel 2 of Table 9. Our findings indicate that those thinking about joining a SMSF are likely to be younger males with some knowledge of SMSF regulations, relatively high confidence in their own ability to understand financial matters and high tolerance of risk. They are no more numerate or financially literate, nor have any greater faith in financial professionals, than other non-SMSF members Many of the characteristics of the people intending to start a SMSF contrast with the characteristics of the people who end up as members - they are more likely to be older, female, decumulators who trust financial professionals. This contrast between those who contemplate a SMSF and those who eventually become members shows the effectiveness of financial professionals in recruiting middle-aged people approaching retirement into SMSFs, including people who might not otherwise have started their own fund.

Estimates from the model of former members are almost all small and insignificant, being constrained by few observations. The only notable exception is the estimated effect of higher numeracy with former SMSF members, like current members, being less likely to be highly numerate.

Initial Decisions

We report in Figure 5 our findings on what people did in the period immediately after establishing/joining a SMSF. The majority of responses are in line with expressed motivations to join a SMSF previously reported in Figure 3. In particular, a key motivation for joining a SMSF was to choose investments themselves and this is what people did by directing their attention to the management of an Australian equity portfolio. Their enthusiasm for moving to a SMSFs can be gauged by the fact that 36% of them immediately increased their contribution to the fund. This finding is in contrast to Benartzi and Lewin (2012) who report that those who join employer-sponsored plans save too little.

(Insert Figure 5 here)

Given that we find that one of the characteristics of SMSF members is a greater willingness to take risk, it is somewhat surprising to find that one of the initial changes undertaken by a high proportion of new members was to move their wealth towards safer assets, and particularly to bank term deposits. Generalising this finding is dangerous as it may reflect that respondents took the survey after a long period when term deposit rates were unusually high relative to the returns offered on other investment options. Indeed, we find there were other SMSF members who did move to more risky portfolios, but on balance the move was towards safer assets.

Consistent with their expressed motivations, the opportunity offered by SMSFs to invest in collectables was taken up by very few. Others options that received little attention included investing off-shore, borrowing to fund investments and increasing life insurance. Overall, what people did within their SMSF shortly after joining was largely in line with their motivations, with the possible exception of moving to safer assets.

5. Conclusions and future work

Self-managed superannuation funds form an integral part of the Australian superannuation system, housing almost one-third of the nation's total assets in retirement savings and more than one million members. Yet despite their popularity, little has been known about the characteristics and motivations of members.

Our survey of more than 1000 current superannuation members produces four main findings. First, the freedom to choose and monitor investments and the opportunity to minimise tax are the two main reasons that SMSF members nominate as the reason they start or join their own small retirement savings fund. They expect the benefits associated with control over investments and tax minimisation to outweigh any additional costs and time attributable to the greater administrative responsibilities associated with a SMSF. However the greater involvement of the members in the investments of a SMSF is at odds with the modest financial skills of the average SMSF member, and appears to relate to their overconfidence, desire to take on greater risk and the trust that they have in professional advice.

Second, financial planners and accountants are clearly important to the growth of the SMSF sector and have more influence than other people or institutions. The majority of SMSF members say that a financial professional first suggested this type of fund. The process of starting a fund appears to create significantly higher confidence and trust in financial professionals that we find current and previous SMSF members holding. This contrasts with the majority of non-SMSF members, who mistrust financial professionals, even those who are thinking about starting their own fund.

Third, the group of non-members who express an intention to start a fund is different from those who end up in one. Young men with high risk tolerance, confidence in their own financial knowledge and no particular trust in financial professionals are more likely to be thinking of starting a SMSF than other types of non-SMSF members. By contrast current SMSF membership is tilted to females at older ages, who are about to enter the decumulation stage, and who trust financial professionals.

Fourth, SMSF members act on their main motives for joining or starting the fund by engaging in investment activities, especially by investing in particular Australian equities (rather than merely allocating a percentage to generic asset classes). They also show their enthusiasm for joining a SMSF by increasing their level of contributions. However, despite their higher risk tolerance, SMSF members move wealth towards safe assets such as term deposits. And despite their wish to take control of the investment of their savings, few spend time on the operation of their fund, with the median time spent at slightly greater than one hour per week and with most of the operating responsibilities resting with professional advisers. These results point to disconnections between intentions and outcomes for SMSF members.

Our results can provide a check for superannuation fund members who are contemplating establishing an SMSF: despite their intentions, few SMSF trustees actually exercise the degree of active investment control that they anticipate, while the influence of financial professionals seems stronger than individual motivations. These two factors could be linked to future disappointment. Our findings also raise concerns for regulators, since it would be misguided of them to assume that SMSF member-trustees are more financially sophisticated than the average person and therefore less susceptible to pitfalls. In addition, our results suggest that large fund trustees who offer members professionally managed investment strategies at relatively low cost, and without the extra burden of personal responsibility for most administration and compliance, could communicate better the value of their services to the group of members who are thinking of the switch to self-management.

In future research, we recommend a deeper investigation of the experiences of current and former SMSF members. Having outlined the reasons why people start SMSFs, it is important to then understand the extent to which their aspirations have been met and delve into the apparent contradiction between the self-reported reasons for the establishment of a SMSF and the subsequent actions of members once created.

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Appendix: Survey Excerpts

Excerpt 1: Questions to Measure General Numeracy

Imagine that we rolled a fair, six-sided die 1000 times. Out of 1000 rolls, how many times do you think the die would come up even?

Please enter a number between 0 to 1000 in the box. _______________ times

In a lottery, the chance of winning a $500 prize is 1%. What is your best guess of how many people would win the prize if 1000 people each buy a single ticket in the lottery?

Please enter a number between 0 to 1000 in the box. ________________ people

In a raffle, the chance of winning a car is 1 in 1000. What per cent of tickets in the raffle win a car?

Please enter a percentage. ___________ %

Excerpt 2: Questions to Measure General Finance Knowledge

On a scale of 1 to 7, where 1 means very low and 7 means very high, how would you assess your understanding of finance?

	Very low 1	2	3	about average 4	5	6	Very high 7
Please tick one	☐	☐	☐	☐	☐	☐	☐

Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

❍ More than $102
❍ Exactly $102
❍ Less than $102
❍ Do not know

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

❍ More than today
❍ Exactly the same
❍ Less than today
❍ Do not know

Buying shares in a single company usually provides a safer return than buying units in a managed share fund.

❍ True
❍ False
❍ Do not know

Excerpt 3: Questions to Measure SMSF Literacy

What is the tax rate on concessional contributions into superannuation?

a. 0%
b. 15%
c. 31.5%
d. 46.5%
e. Don't know

What is the maximum number of members that a SMSF can have?

a. 2
b. 3
c. 4
d. 5
e. Don't know

The percentage of total assets that can you lend to, invest in, or lease to, a related party of a SMSF is less than:

a. You can never lend to, invest in or lease to a related party.
b. 5%
c. 15%
d. 46.5%
e. There is no limit
f. Don't know

Is the following statement true or false?

SMSF members who are victims of theft or fraud through their fund can be compensated.

a. True
b. False
c. Don't know

Excerpt 4: Question for Self-Reported Risk Tolerance

Are you generally a person who is fully prepared to take risks in financial matters or do you try to avoid taking risks?
Please tick a box on the scale, where the value 0 means: 'unwilling to take risks in financial matters' and the value 10 means: 'fully prepared to take risks in financial matters'.

unwilling to take risks in financial matters	0	1	2	3	4	5	6	7	8	9	10	fully prepared to take risks in financial matters
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Excerpt 5: Questions for Locus of Control Scale from Rotter (1966)

Score one point for selecting italicised answers. High score implies external locus of control. Low score implies internal locus of control.

1.
   a. *Many of the unhappy things in people's lives are partly due to bad luck.*
   b. People's misfortunes result from the mistakes they make.
2.
   a. One of the major reasons why we have wars is because people don't take enough interest in politics.
   b. *There will always be wars, no matter how hard people try to prevent them.*
3.
   a. In the long run people get the respect they deserve in this world.
   b. *Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.*
4.
   a. The idea that teachers are unfair to students is nonsense.
   b. *Most students don't realize the extent to which their grades are influenced by accidental happenings.*
5.
   a. *Without the right breaks one cannot be an effective leader.*
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.
6.
   a. *No matter how hard you try some people just don't like you.*
   b. People who can't get others to like them don't understand how to get along with others.
7.
   a. *I have often found that what is going to happen will happen.*
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
8.
   a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
   b. *Many times exam questions tend to be so unrelated to course work that studying in really useless.*
9.
   a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
   b. *Getting a good job depends mainly on being in the right place at the right time.*
10.
   a. The average citizen can have an influence in government decisions.
   b. *This world is run by the few people in power, and there is not much the little guy can do about it.*
11.
   a. When I make plans, I am almost certain that I can make them work.
   b. *It is not always wise to plan too far ahead because many things turn out to- be a matter of good or bad fortune anyhow.*

12.
   a. In my case getting what I want has little or nothing to do with luck.
   b. *Many times we might just as well decide what to do by flipping a coin.*

13.
   a. What happens to me is my own doing.
   b. *Sometimes I feel that I don't have enough control over the direction my life is taking.*

Excerpt 6: Questions For What Statement is the Most/Least Important Reason for you Starting, or Thinking About Starting a SMSF?

1	Advised to set up a SMSF by a professional advisor (e.g. financial planner, accountant)
2	Advised to set up a SMSF by a friend/family member
3	Don’t trust my existing super fund to act in my best interests
4	My existing super fund takes too much risk
5	My existing super fund takes too little risk
6	My existing super fund doesn’t communicate well with me
7	My existing super fund has higher fees and costs than a self-managed super fund
8	Not satisfied with the investment performance (i.e. returns) of my existing fund
9	Want to be more involved with managing the fund
10	Want to be able to choose my own investments
11	Want to be able to borrow within my fund
12	Can choose specific share (equity) investments in my SMSF
13	Can purchase property (real estate) in my SMSF
14	Can purchase artwork and other collectables in my SMSF
15	Can consolidate my own superannuation with my other family members in a SMSF
16	Can invest in a wider variety of assets
17	I retired/was made redundant
18	Can invest in high income assets
19	Can minimise tax
20	Can better plan and manage my estate (bequests)
21	Can have a better transition to retirement

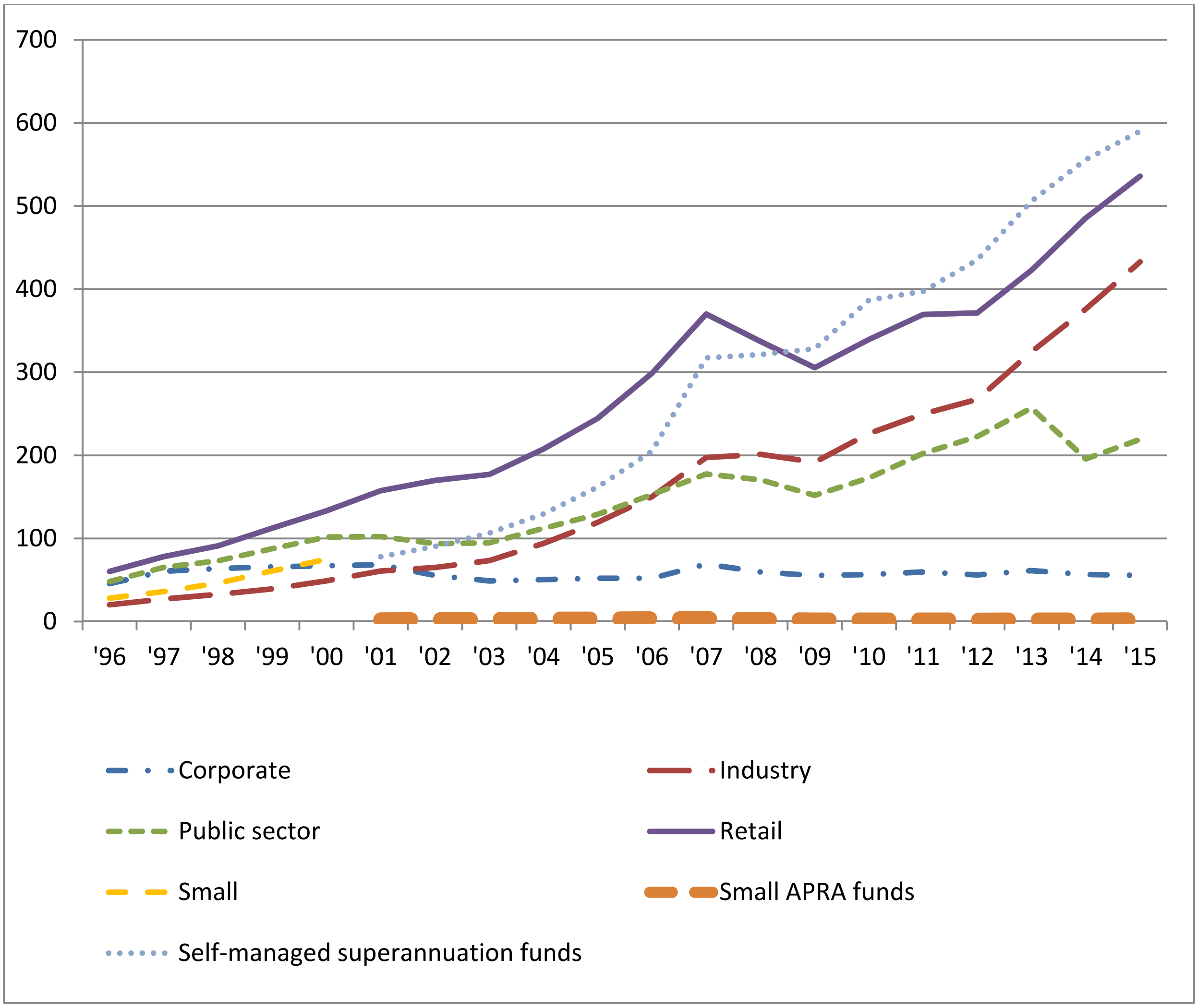
Excerpt 7: Questions for
What Statement is the Most/Least Important Reason for you Not Starting a SMSF?

1	I have never even thought about starting a SMSF.
2	I don’t have the time needed to run a SMSF
3	I’m happy with my current superannuation fund
4	I can trust my current superannuation fund to act in my best interests
5	A SMSF has higher fees and costs
6	I don’t want to arrange for annual finance statements, tax returns and external auditing
7	I don’t want the responsibility of choosing investments
8	I don’t have the skills and knowledge to choose investments
9	I don’t want to have to monitor investments in a SMSF
10	I have enough insurance coverage within my current superannuation fund
11	I have superannuation savings that I can’t transfer to a SMSF
12	I don’t want to combine finances with family/other members within a SMSF
13	My super fund allows me a better transition to retirement
14	My adviser told me that I should not set up a SMSF
15	The process of setting up and managing a SMSF requires too much work
16	I do not have enough money in my super account to make starting a SMSF worthwhile.

Excerpt 8: Questions for
What Statement Most/Least Closely Matches What You Did Differently After Starting Your SMSF?

1	I increased the level of my superannuation contributions
2	I kept the level of my superannuation contributions unchanged
3	I invested more in riskier assets
4	I invested more in safer assets
5	I kept the risk of my investments largely unchanged
6	I invested mainly in residential property
7	I invested mainly in commercial property
8	I invested mainly in art or other collectables
9	I borrowed to make investments
10	I invested in specific Australian shares (equities) that paid fully franked dividends
11	I invested mainly in term deposits and/or bank accounts
12	I increased the level of my life insurance
13	I invested mainly in international shares or property

FIGURE 1: Total Assets of Australian Superannuation Industry 1996-2015 ($ billion) [a]



[a] Sources: Arnold et al. (2015); APRA (2015)

FIGURE 2: Most/Least important reasons for *thinking about starting* a SMSF

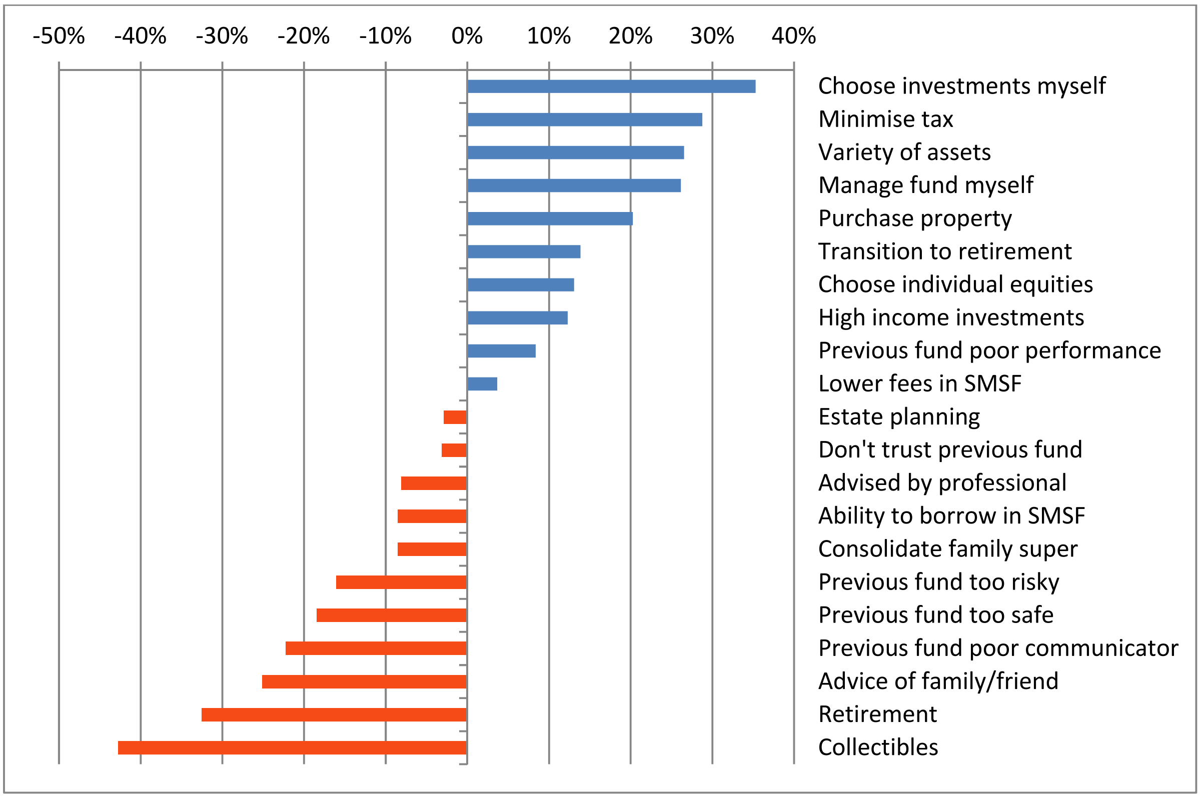


Figure 2 shows relative importance (ratio scale) of reasons for thinking about starting a SMSF. Percentages are counts of most minus least responses assigned to each statement respondents who were not members of SMSFs but thinking about starting one, normalised by the total number of times the statement appeared in choice sets. The possible range is -100% to +100%.

FIGURE 3: Most/Least important reasons for *having started* a SMSF

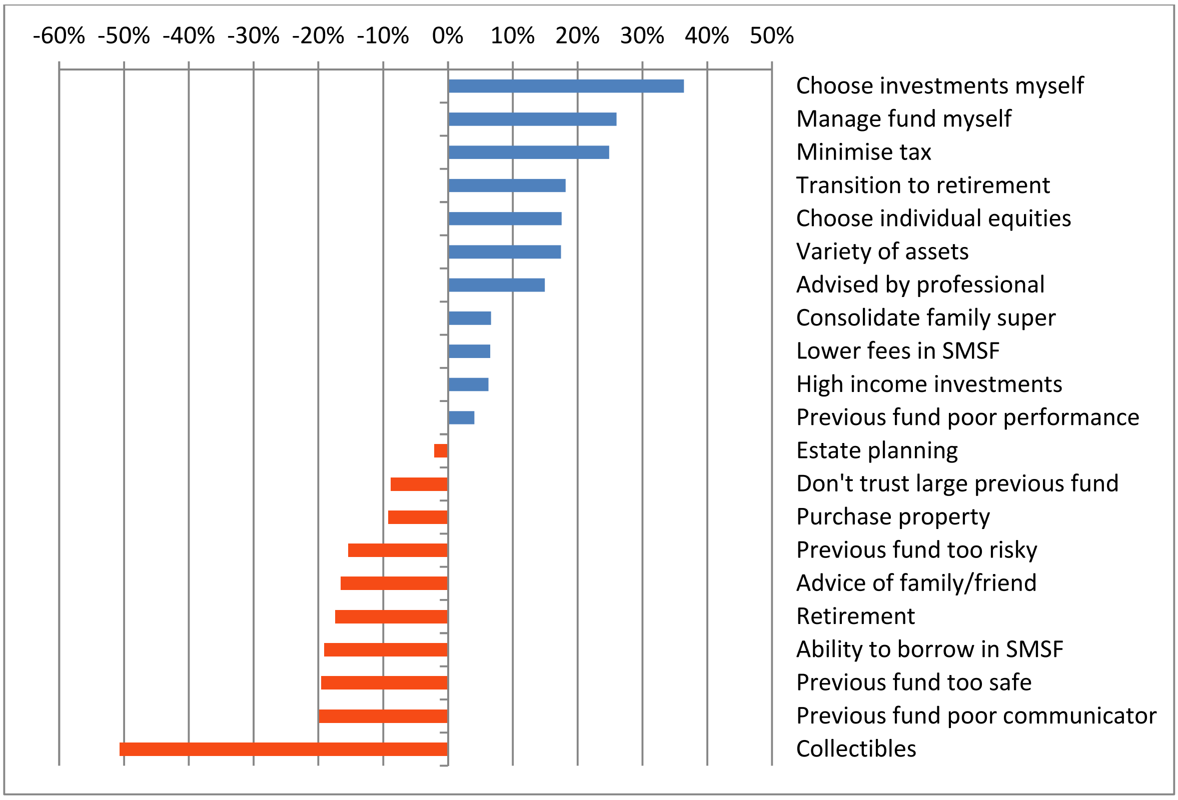


Figure 3 shows relative importance (ratio scale) of reasons for having started a SMSF. Percentages are counts of most minus least responses assigned to each statement by all SMSF members participating in the survey, normalised by the total number of times the statement appeared in choice sets. The possible range is -100% to +100%.

FIGURE 4: Most/Least important reasons for *not* thinking about starting a SMSF

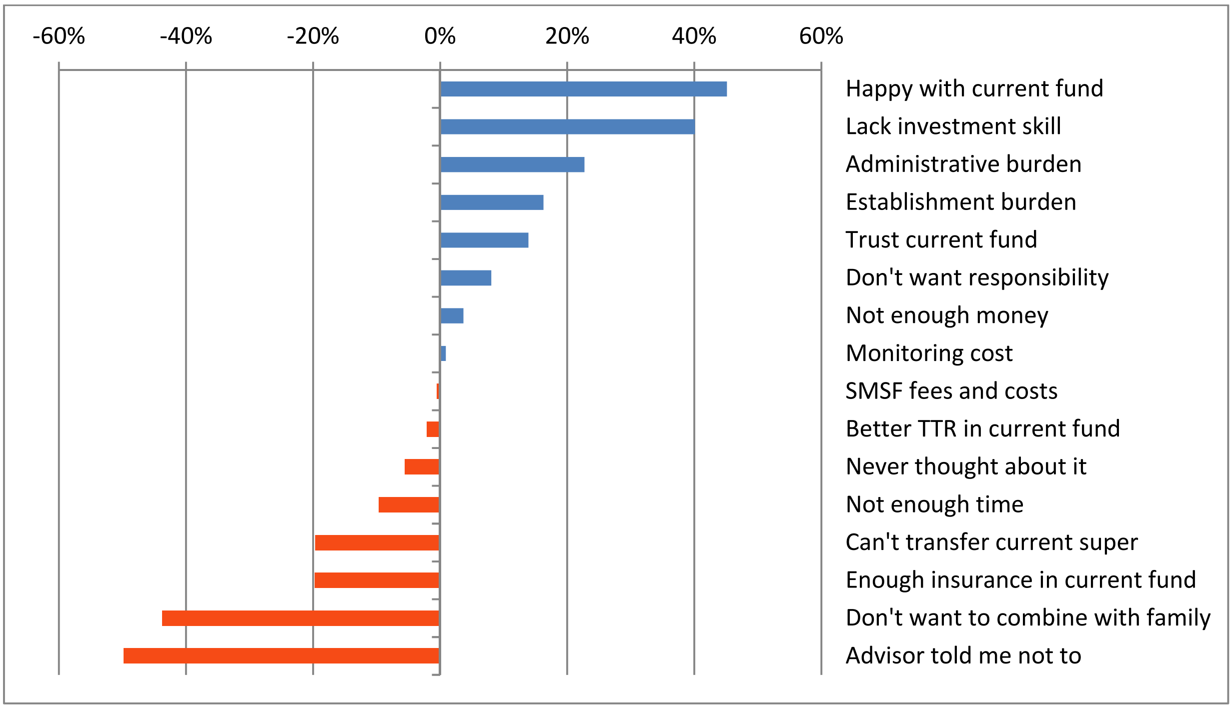


Figure 4 shows relative importance (ratio scale) of reasons for not thinking about starting a SMSF. Percentages are counts of most minus least responses assigned to each statement by respondents who were not currently members of a SMSF and were not thinking about starting one, normalised by the total number of times the statement appeared in choice sets.

FIGURE 5: What SMSF members did differently after starting their fund

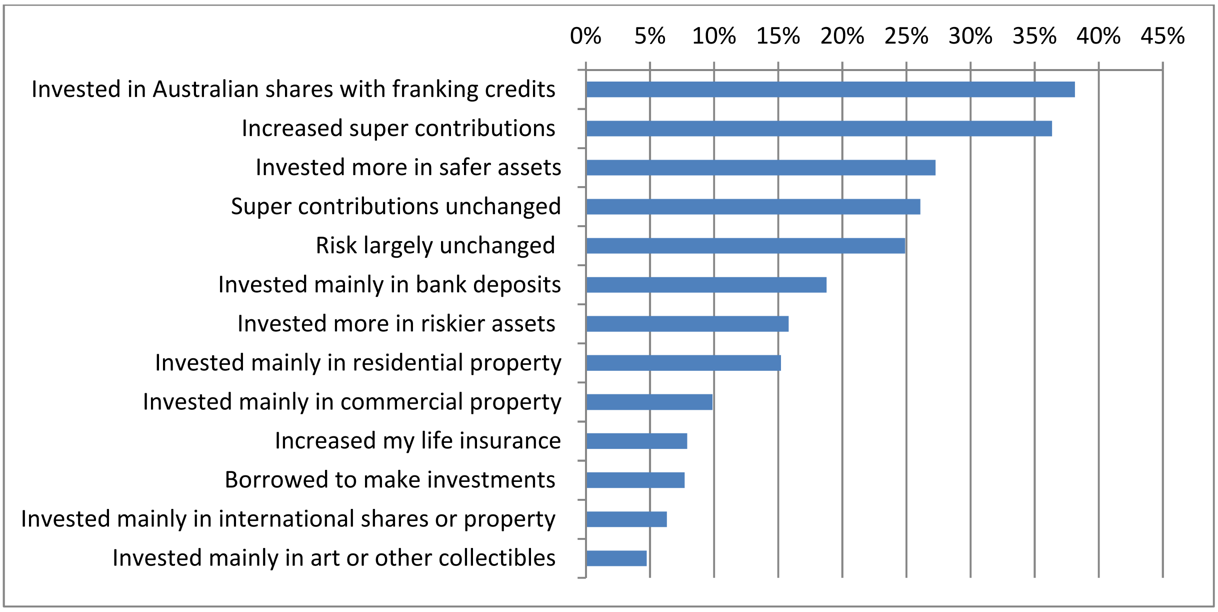


Figure 5 shows the percentage of respondents who selected the statement in response to the question "Which of these statements most closely matches what you did differently after starting your SMSF?" Most respondents chose between 1 and 3 statements.

TABLE 1: Survey sample and 2011 Australian Population Census (25-75 years)

	Survey Respondents (n=1018) (%)	Non-SMSF Members (n=513) (%)	SMSF Members (n=505) (%)	2011 Australian Census (%)
Gender	%	%	%	%
Male	50.1	50.5	49.7	49.5
Female	49.9	49.5	50.3	50.5
Marital Status				
Never married and not in a de facto relationship	16.7	21.6	11.7	33.4
Widowed	3.9	2.1	5.7	2.5
Divorced	7.8	7.2	8.3	9.1
Separated	2.8	2.1	3.6	3.4
Married	58.4	54.6	62.4	51.6
De facto relationship	10.3	12.3	8.3	N/A
Highest Tertiary Education Level				
PhD	2.1	1.0	3.2	0.9
Postgraduate	22.2	17.9	26.5	5.7
Bachelor degree	26.4	25.9	26.9	16.7
Technical or vocational training	34.0	38.0	29.7	31.5
None	15.4	17.2	13.7	45.2
Highest Secondary Education Level				
Year 12	78.3	76.4	80.2	56.4
Year 10-11	19.0	20.7	17.2	32.7
Lower	2.8	2.9	2.6	10.9
Personal Income				
Nil income	4.8	4.9	4.8	24.2
$300-$399 weekly ($15,600-$20,799 p.a.)	7.5	7.8	7.1	9.3
$400-$599 weekly ($20,800-$31,199 p.a.)	7.7	7.8	7.5	12.6
$600-$799 weekly ($31,200-$41,599 p.a.)	9.3	9.9	8.7	12.2
$800-$999 weekly ($41,600-$51,999 p.a.)	9.4	10.7	8.1	10.0
$1000-$1249 weekly ($52,000-$64,999 p.a.)	11.0	10.5	11.5	9.6
$1250-$1499 weekly ($65,000-$77,999 p.a.)	8.0	7.6	8.3	6.7
$1500-$1999 weekly ($78,000-$103,999 p.a.)	16.5	16.0	17.0	7.9
$2000 or more ($104,000 or more)	25.8	24.8	26.9	7.6
Age group*				
25-34 years	20.0	23.6	16.4	22.6
35-44 years	16.4	22.4	10.3	23.4
45-54 years	18.3	22.6	13.9	22.5
55-64 years	25.6	18.5	32.9	19.1
65-74 years	19.6	12.9	26.5	12.4

Table 1 reports attribute percentages for the sample of 1018 survey respondents from the online panel completing the survey in August 2014. For comparison it also reports percentages for 2011 Census data from the Australian Bureau of Statistics for persons aged 25 through 75. The survey sample included 505 SMSF members and 513 members of other superannuation funds.*SMSF members selected to be 40% under 55 years of age and 60% over 55 years of age to match ATO (2014) data.

TABLE 2: Definitions of variables for logit estimation

Variable	*Definition*
Age	Categorical variable set to midpoints of 5 year age intervals from 25-29 to 70-74
Male	Indicator variable equal to 1 if respondent is male, 0 otherwise
Partner	Indicator variable equal to 1 if respondent is married or in a de facto relationship, 0 otherwise
Decumulator	Indicator variable equal to 1 if respondent is withdrawing money from their main superannuation fund, 0 otherwise
Income	Approximate weekly gross personal income ($)
High School	Indicator variable equal to 1 if respondent has completed High School, 0 otherwise
University	Indicator variable equal to 1 if respondent holds a Bachelor or higher degree, 0 otherwise
Financial profession	Indicator variable equal to 1 if respondent answers yes to "Are you, or have you been, an accountant, financial planner, wealth manager or broker?", 0 otherwise
Risk tolerance	Financial risk tolerance: responses to "Are you generally a person who is fully prepared to take risks in financial matters or do you try to avoid taking risks?" (0-100 scale)
Trust financial professionals	Indicator variable equal to 1 if respondent ranks "Generally, financial professionals do what is best for their clients" or "For the most part, financial professionals are trustworthy" highest, 0 otherwise
Numeracy	Proportion correct answers to numeracy questions (fractions, percentages and probability)
SMSF literacy	Proportion correct answers to 4 SMSF literacy questions (contributions, number of members, related party transactions and compensation for fraud)
High financial literacy	Indicator variable equal to 1 if respondent scored ABOVE median on 3 financial literacy questions (simple interest, inflation and diversification)
High subjective financial literacy	Indicator variable equal to 1 if respondent's subjective financial knowledge rating is ABOVE median, else = 0
Overconfidence	Indicator variable equal to 1 if respondent's financial literacy is BELOW median and subjective financial knowledge rating is ABOVE median
High internal LOC	Indicator variable equal to 1 if respondent's internal locus of control score is ABOVE median, 0 otherwise
SMSF	Indicator variable equal to 1 if respondent answers yes to "Are you currently a member of a self-managed superannuation fund?", 0 otherwise
Intend SMSF	Indicator variable equal to 1 if respondent is NOT currently a SMSF member and answered yes to "Have you ever thought about starting a SMSF?", 0 otherwise
Ex SMSF	Indicator variable equal to 1 if respondent was a SMSF member in the past but is not currently, 0 otherwise

TABLE 3: Financial literacy and risk tolerance of SMSF and non-SMSF members

	Survey Respondents (n=1018) (%)	Non-SMSF Members (n=513) (%)	SMSF Members (n=505) (%)
Numeracy			
No Correct Answers	26.1	23.6	28.7
One Correct Answer	22.3	20.5	24.2
Two Correct Answers	25.2	27.7	22.8
All Correct Answers	26.3	28.3	24.4
Financial Literacy			
No Correct Answers	8.4	7.0	9.9
One Correct Answer	16.1	15.4	16.8
Two Correct Answers	28.7	31.6	25.7
All Correct Answers	46.8	46.0	47.5
SMSF Literacy			
No Correct Answers	38.0	48.3	27.5
One Correct Answer	37.4	37.8	37.0
Two Correct Answers	19.7	12.1	27.5
Three Correct Answers	3.9	1.4	6.5
All Correct Answers	0.9	0.4	1.4
Self-Assessed Financial Skills			
Very Low Skill	5.8	7.4	4.2
Level 2	6.6	7.2	5.9
Level 3	12.3	13.8	10.7
Average Skill	33.1	35.2	31.1
Level 5	24.6	23.0	26.1
Level 6	13.3	10.3	16.2
Very High Skill	4.4	3.1	5.7
Risk Tolerance			
Very Low Risk	17.8	21.6	13.9
Low Risk	16.6	19.5	13.7
Average Risk	29.6	30.0	29.1
High Risk	25.5	22.4	28.7
Very High Risk	10.5	6.4	14.7

Table 3 reports percentages of 1018 sample respondents, 505 SMSF members and 513 non-SMSF members who correctly answered quizzes on numeracy, general financial literacy, SMSF knowledge, and risk tolerance. Risk tolerance is measured by responses to the question "Are you generally a person who is fully prepared to take risks in financial matters or do you try to avoid taking risks?" (0-100), where Very Low is 0-20, Low is 21-40, Average is 41-60, High is 61-80 and Very High is 81-100.

TABLE 4: Current and former SMSF members, fund characteristics

	Former SMSF Members (n=24) (%)	SMSF Members (n=505) (%)
Start Date		
1990-1994	20.8	11.9
1995-1999	20.8	12.7
2000-2004	20.8	17.4
2005-2009	16.8	22.8
2010-2015	20.8	35.2
Corporate Trustee		
Yes	25	36.6
No	75	36.9
Don’t Know	0	26.5
Role of Respondent		
Main decision-maker	54.2	63.4
Joint decision-maker	29.1	28.3
Little or no role as decision-maker	16.7	8.3
Amount of Funds in SMSF		
Less than $50,000		16.9
$50,001-$100,000		15.2
$100,001-$200,000		13.9
$200,001-$400,000		15.2
$400,001-$700,000		16.4
$700,001-$999,999		9.3
$1,000,000-$1,999,999		9.5
$2,000,000-$2,999,999		1.8
$3,000,000-$5,000,000		1.6
In excess of $5,000,000		0.2
Average balance in your SMSF during operation		
Less than $50,000	37.5	
$50,001-$100,000	25.0	
$100,001-$200,000	8.33	
$200,001-$400,000	4.17	
$400,001-$700,000	0	
$700,001-$999,999	0	
$1,000,000-$1,999,999	0	
$2,000,000-$2,999,999	0	
$3,000,000-$5,000,000	0	
In excess of $5,000,000	0	
Obs	24	505

TABLE 5: Current SMSF members, influences on establishment and running costs

Who first started you thinking about setting up or joining a SMSF?	(%)
Accountant	24.1
Financial planner	32.9
A SMSF administration provider	5.3
Friend/family member	11.1
Another member of my SMSF	2.8
Media	1.2
My own idea	19.4
Other financial professional	1.0
Other	2.2
Did you move all your superannuation balances into the SMSF?	
Yes	71.8
What amount of your own funds did you transfer to the SMSF at establishment?	
Less than $50,000	19.4
$50,001-$100,000	13.1
$100,001-$200,000	12.9
$200,001-$400,000	13.3
$400,001-$700,000	7.9
$700,001-$999,999	3.5
$1,000,000-$1,999,999	1.0
$2,000,000-$2,999,999	0.2
$3,000,000-$5,000,000	0.4
In excess of $5,000,000	0.0
Choose not to respond	28.3
Approximate annual costs of running SMSF	
Less than $500	16.8
$501-$1000	14.0
$1001-$2000	14.5
$2001-$3000	16.4
$3001-$4000	11.3
$4001-$5000	4.0
$5001-$7000	2.8
$7001-$10,000	2.8
In excess of $10,000	0.6
Don't know	16.8
Approximate time spent on SMSF each month	
Less than one hour per month	43.2
1-4 hours per month	28.7
½-1 day per month	15.1
1-2 days per month	6.1
3-5 days per month	5.9
More than 5 days per month	1.0
Obs.	505

TABLE 6: Correlation between reason for starting SMSF and time spent operating

Advised to set up a SMSF by a professional advisor	-0.046
Advised to set up a SMSF by a friend/family member	-0.069
Don’t trust my existing super fund to act in my best interest	0.078*
My existing super fund takes too much risk	0.036
My existing super fund takes too little risk	0.031
My existing super fund doesn’t communicate well with me	0.021
My existing super fund has higher fees and costs than SMSF	0.072
Not satisfied with the investment performance my existing fund	-0.012
Want to be more involved with managing the fund	0.126***
Want to be able to choose my own investments	-0.001
Want to be able to borrow within my fund	-0.095**
Can choose specific share (equity) investments in my SMSF	0.167***
Can purchase property (real estate) in my SMSF	-0.049
Can purchase artwork and other collectables in my SMSF	0.155***
Can consolidate family superannuation in a SMSF	0.02
Can invest in a wider variety of assets	-0.081*
I retired/was made redundant	0.053
Can invest in high income assets	0.059
Can minimise tax	-0.102**
Can better plan and manage my estate (bequests)	-0.061
Can have a better transition to retirement	-0.138***
Obs	505

Table 6 reports the correlation between the number of times a member ranked the statement as the most important reason for starting a SMSF and the time spent operating the SMSF after establishment. Time spent is collected as responses to the question “In the year to June 30 2014, approximately how much time each month did you spend on monitoring and administering your SMSF?”, where answers took the value of 1 for “Less than one hour per month”; 2 for “1-4 hours per month”; 3 for “1/2- 1 day per month”; 4 for “1-2 days per month”; and 5 for “3-5 days per month”. Responses of “other” are excluded. Positive correlation indicates important reasons and longer time spent. *p<0.1; **p<0.05; ***p<0.01.

TABLE 7: Former SMSF members, characteristics of fund and influences on closure

	(%)
SMSF closure year	
1990-1994	4.2
1995-1999	0.0
2000-2004	16.6
2005-2009	33.3
2010-2015	45.9
Number of SMSF members	
1	70.9
2	16.7
3	8.3
4	4.1
Whose idea was it to close the SMSF?	
Myself	54.0
Accountant	12.6
Financial planner	16.7
SMSF administration provider	4.2
Friend/family member	0.0
Another member of my SMSF	8.3
Media	0.0
Other financial professional	0.0
Other	4.2
Did the SMSF continue after you left?	
Yes	12.5
No	54.2
Don’t know	33.3
Prior to establishing the SMSF, where were your superannuation funds being held?	
Corporate fund	20.8
Industry fund	33.3
Public sector fund	16.7
Retail fund	16.7
Small APRA fund	12.5
Don’t know	0.0
Where did you put your money after you exited the SMSF?	
Corporate fund	20.8
Industry fund	20.8
Public sector fund	20.8
Retail fund	16.7
Withdrew lump sum	16.7
Other	4.2
Observations	24

TABLE 8: Attitudes to financial professionals

Percentage of respondents who select statement as best reflecting how they feel about financial professionals

	SMSF member	**Non-SMSF member**			**Former SMSF member**
		All	Thinking of SMSF	Not thinking of SMSF	
	(%)	(%)	(%)	(%)	(%)
Generally, financial professional do what is best for their clients	33.9	24.8***	23.5	24.7	33.3
For the most part, financial professionals are trustworthy	25.7	20.1***	22.9	17.9	33.3
Financial professionals tend to have their own interests in mind.	21.2	25.0***	22.9	25.9	25.0
Potential commissions influence the advice a financial professional gives to his/her clients	19.2	30.2***	30.7	31.6	8.3
Obs	505	513	153	336	24

Table 8 reports the percentage of respondents who gave a ranking of 1 (best reflects how they feel about financial professionals) to the statement in the first column. *** p<0.01 in chi-square test of equality between rankings of SMSF members and non-SMSF members.

TABLE 9: Probability of current, future or past SMSF membership, marginal effects

	SMSF	Intend SMSF	Ex SMSF
Age 32	0.016	-0.059	0.033
	(0.024)	*(0.073)*	*(0.034)*
Age 37	0.005	0.016	0.030
	(0.026)	*(0.074)*	*(0.034)*
Age 42	-0.009	-0.080	-0.008
	(0.025)	*(0.075)*	*(0.045)*
Age 47	0.027	-0.129	0.034
	(0.024)	*(0.079)*	*(0.035)*
Age 52	0.034	-0.055	0.015
	(0.024)	*(0.080)*	*(0.035)*
Age 57	0.084***	-0.298***	0.021
	(0.025)	*(0.087)*	*(0.040)*
Age 62	0.082***	-0.192**	0.031
	(0.025)	*(0.088)*	*(0.036)*
Age 67	0.046*	-0.165	0.028
	(0.027)	*(0.112)*	*(0.041)*
Age 72	0.014	-0.353**	-0.019
	(0.029)	*(0.146)*	*(0.059)*
Male	-0.029***	0.079**	-0.011
	(0.011)	*(0.040)*	*(0.020)*
Partner	0.005	-0.012	0.019
	(0.012)	*(0.044)*	*(0.020)*
Decumulator	0.093***	-0.038	0.019
	(0.015)	*(0.080)*	*(0.031)*
Income	0.00001*	0.00003	-0.00001
	(0.000)	*(0.000)*	*(0.000)*
High School	0.037**	-0.055	0.002
	(0.014)	*(0.048)*	*(0.023)*
University	0.014	0.021	0.025
	(0.011)	*(0.042)*	*(0.018)*
Finance Profession	-0.007	0.006	-0.004
	(0.015)	*(0.052)*	*(0.025)*
Risk Tolerance	0.001***	0.004***	0.000
	(0.000)	*(0.001)*	*(0.000)*
Trust financial professionals	0.022**	0.013	0.026
	(0.010)	*(0.040)*	*(0.019)*
Numeracy	-0.042***	0.011	-0.060**
	(0.016)	*(0.057)*	*(0.029)*
High financial literacy	0.015	-0.016	-0.022
	(0.016)	*(0.057)*	*(0.027)*
SMSF literacy	0.131***	0.309***	0.049
	(0.026)	*(0.090)*	*(0.037)*
High subjective financial literacy	-0.001	0.103**	0.031
	(0.012)	*(0.045)*	*(0.021)*
Overconfidence	0.049*	-0.055	0.052
	(0.029)	*(0.121)*	*(0.039)*
High internal LOC	0.002	0.003	-0.019
	(0.011)	*(0.040)*	*(0.018)*
Obs	*1018*	*489*	*1018*

Table 9 reports results of weighted logit estimation of the probability of 1) Current membership of a SMSF (SMSF); 2) Thinking about starting a SMSF when not currently a member of a SMSF (Intend SMSF); and 3) Past membership of a SMSF (Ex-SMSF). Observations where respondent is currently a member of a SMSF are weighted by 0.16 to account for oversampling of SMSF members in the survey. (Population rate of SMSF membership among adults is 8%, sampling rate is 50%). Marginal effects are the change in the predicted probability that the dependent variable equals one when the explanatory variable increases by one unit, averaged over all observations in the estimation sample. Age group 25-29 is the reference level for Age categories. Approximate (delta method) standard errors are in brackets. *p<0.1, **p<0.05; ***p<0.01.