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Retirement Planning in Academia

Stuart Michelson[a] and Lisa A. Schwartz[b]
[a] *Roland and Sarah George Professor of Finance*
Stetson University, DeLand, FL 32723
smichels@stetson.edu
[b] *Professor of Finance, Porter B. Byrum School of Business*
Wingate University, Wingate, NC 28174
lschwart@wingate.edu

ABSTRACT

This study reviews retirement preparation of academic faculty. Faculty have higher education, higher income and more stimulating jobs than the general public, which can lead to working longer and saving more than those in traditional jobs. Building on prior studies, this research investigates perception as well as actual retirement savings. It finds that academics who perceive they are financially preparing and aggressively saving are saving at higher levels than those who are not. Although relative savings level is higher, the actual level of savings might not be enough to fund a comfortable retirement and respondents are more likely to depend on Social Security funds. Additionally, those with higher risk tolerance measures invest at higher levels.

JEL Classifications: G1, G4, G11, M5

Keywords: retirement; savings; social security; 403B

I. INTRODUCTION

After a lifetime of labor, many workers look forward to retirement. Whether relying on personal savings, company sponsored pension or social security, the dream of no longer having to work at a physically or mentally demanding job is attractive. But, for some occupations, retirement may not be as inviting. Jobs with flexible working conditions or stimulating environments may provide the desire to continue working well past the traditional retirement age of 65. Jobs in academia fit this description. As a result, professors may continue to work as long as they are physically capable, or retire from full-time employment only to return to part-time employment. The question then becomes whether retirement choice has an impact on retirement savings and investment. This study surveys academics on their plans for retirement and their financial preparations for retirement.

II. LITERATURE REVIEW

Studies on retirement savings find education level has an impact on workers' retirement plans. McDonnell (2005) finds academic faculty have different demographic characteristics from the general working population. Academics tend to be older and more educated, and have higher income. These factors have been shown to have a positive impact on retirement financial stability. The Economist (2014) reports an individual's level of education is important in workforce participation, especially for adults between 62 and 74. Approximately 65% of men and 50% of women with professional or doctorate degrees are in the workplace at this age. The higher education level usually relates to higher pay and better health, so there is an increased ability to remain in the labor force. These factors also increase faculty retirement earnings when they do finally retire.

Planning for retirement is important to all workers. Knowing how much to invest and where to invest can be intimidating to many in the workforce. Jacobs-Lawson et al., (2005) conclude that increased retirement savings can be linked to higher knowledge of financial planning, longer time perspectives, and increased risk tolerance. Dulebohn and Murray (2007) look at risk decisions in faculty defined contribution funds. They find that behavior is more complex than expected and that more emphasis needs to be placed on understanding risk-preference and investment knowledge. They also indicate that because academics have longer work expectancy and more job security, they may take more investment risks than the general population.

Yakoboski (2006 and 2007) representing TIAA-CREF surveyed faculty concerning retirement savings and highlighted the following outcomes. Eighty-six percent of academic faculty are somewhat or very confident that they will have enough money to retire. The faculty are more knowledgeable than the general population about how much they will need to live comfortably during retirement. Fifty-one percent expect to retire at or before age 65 and 24% at 70+; however, 4% expect to never retire. Of the faculty who expect to retire after 65, 62% indicated it was because they enjoyed their work. This compares to Heim's (1992) survey of faculty, other professional and non-professional staff, where only 9% expected to retire after 70. Of those with doctorate or equivalent degrees, 26% expected to retire before age 65 and 14% after age 70. Health

was the primary reason for retirement and medical expenses were the main reason for retirement savings.

This research investigates perceptions of retirement preparation and compares these perceptions to faculty actual retirement investment portfolios. Further, the study investigates if those academics who feel they are the most financially prepared are actually saving and investing at higher levels.

III. DATA

The survey participants were solicited through email to complete a SurveyMonkey based survey. There were 61 surveys returned, with 57 valid respondents. Table 1 shows the age distribution of the respondents. The largest group, forty percent, was 51-60 years old. Most of the respondents, over 75%, plan to retire after the age of 66, with 11% planning to retire after the age of 75. This is consistent with the previous studies that find individuals with higher levels of education are more likely to remain in the workplace.

Males make up about 61% of the respondents and slightly over half are married, the others are single or divorced. The respondents are from different academic disciplines, with the largest percentage coming from Arts and Science (49%) and 27% from Business. Over half are at schools with less than 5,000 students.

When asked if they are looking forward to retirement, 55% agreed or strongly agreed with this sentiment (on a 5-point scale), see Table 2. Seventeen percent disagree or strongly disagree with this statement. This result is interesting relative to Table 1 that shows that individuals are not planning on retiring young. So, even though people are planning on working longer, generally, they are still looking forward to retirement.

Table 1
Demographic information

Age of respondents	Under 21	21-30	31-40	41-50	51-60	61-70	70+
Percent of Respondents	0%	7%	16%	18%	40%	14%	5%
Expected Retirement Age	Under 50	51-55	56-60	61-65	66-70	71-75	75+
Percent of Respondents	0%	7%	5%	12%	40%	25%	11%
Gender	Males	Females					
Percent of Respondents	61%	39%					
Marital Status	Single	Married	Divorced				
Percent of Respondents	32%	53%	16%				
Academic Discipline	Business	Arts & Sciences	Education	Music	Other		
Percent of Respondents	27%	49%	7%	4%	13%		
University Enrollment	0-5K	6K-15K	16K-25K	26K-35K	36K-45K	45K+	
Percent of Respondents	51%	21%	4%	12%	5%	7%	

With respect to retirement, about 44% plan to work in some capacity after retirement, with 30% planning on not working. Again, even though they are looking forward to retirement, many are still planning to remain in the workforce at least part-time. This may be voluntary to stay active or because of financial needs. For those not planning on working after retirement, savings are critical to quality-of-life during the retirement years.

The majority of respondents indicate they are preparing financially for retirement similar to the findings of Yakoboski (2006 and 2007). Only 12% disagreed or strongly disagreed with this statement, but when asked if they have aggressively been putting money into retirement accounts, 34% disagreed or strongly disagreed. The high negative response to this question may be related to the fact that many respondents are planning to retire later and continue some level of employment after retirement. Additionally, because the majority of our respondents are over 50, they are facing the fact that their retirement portfolio is not at the level they desire for a comfortable retirement.

Forty-six percent agreed or strongly agreed that social security is important to retirement income. The response to this question may be related to the high level of respondents who have not saved aggressively for retirement. This is of concern because the future of social security, especially for younger respondents, is not as reliable as for older respondents.

Table 2
Distribution of respondents to retirement questions

	Strongly Agree 5	4	3	2	Strongly Disagree 1
I am looking forward to retirement					
Percent of respondents	31%	24%	28%	3%	14%
I plan to work at some level after retirement					
Percent of respondents	28%	16%	26%	19%	11%
I have been preparing financially for retirement					
Percent of respondents	47%	19%	22%	5%	7%
I have been aggressively putting money into retirement accounts					
Percent of respondents	31%	17%	17%	22%	12%
Social Security is important to my retirement income					
Percent of respondents	21%	25%	37%	7%	11%

To better understand how respondents are saving for retirement, several questions asked about monthly contributions and total investments. The results are in Table 3. Twenty-nine percent are personally saving $250 or less per month and 63% are saving $1,000 or less per month. Household monthly savings are similar with 56% reporting saving $1,000 or less per month. Only 19% are saving $2,000 or more per month.

Because 59% of respondents are older than 50, one would expect much higher levels of retirement savings, especially given that respondents feel they are financially prepared for retirement. This could have a huge impact on future retirement plans.

When considering total individual retirement savings, 22% report having $25,000 or less. Slightly over half have $300,000 or less in individual retirement plans and 55% have $300,000 or less in total household retirement plans. Only 16% have $750,000 or more in retirement plans. Again, these levels seem low based on the age of the respondents in the survey. Because many of the respondents are not planning to retire early or are expecting to work after retirement, it could create a lesser desire to save aggressively. Alternatively, it could be the low amounts in retirement accounts are causing respondents to consider retiring later or having to work during retirement. If individuals retire earlier than expected, either by choice or medical need, they may find they have limited financial resources and need to depend more highly on social security funds. To understand more about the financial preparation of academics, this research investigates correlations and ANOVAs between the variables.

Table 3
Retirement account contributions

Individual monthly contribution to designated retirement accounts											
Dollar Amount	0-250	251-500	501-750	751-1000	1001-1500	1501-2000	2001-3000	3001-4000	4001-5000	over 5000	
Percent of respondents	29%	20%	9%	5%	14%	5%	11%	2%	2%	4%	
Household monthly contribution to designated retirement accounts											
Dollar Amount	0-250	251-500	501-750	751-1000	1001-1500	1501-2000	2001-3000	3001-4000	4001-5000	over 5000	
Percent of respondents	29%	11%	11%	5%	9%	11%	11%	4%	0%	9%	
Total individually invested in all retirement accounts											
Amount in Thousands	0-25	26-50	51-75	76-100	100-200	200-300	300-500	500-750	750-1000	1000-2000	2000+
Percent of respondents	22%	7%	4%	4%	7%	11%	18%	11%	7%	7%	2%
Total household invested in all retirement accounts											
Amount in Thousands	0-25	26-50	51-75	76-100	100-200	200-300	300-500	500-750	750-1000	1000-2000	2000+
Percent of respondents	22%	7%	4%	4%	7%	11%	18%	11%	7%	7%	2%

IV. RESULTS

The results of this study analyze the correlation between the financial preparation variables and other related factors. Financial preparation is measured using two statements: “I have been preparing financially for retirement,” and “I have been aggressively putting money into retirement accounts.” Table 4 shows the correlation between these statements and demographic information.

There is a significant correlation between age and financial preparation. Older respondents are more likely to agree they are preparing. Married respondents are more likely to be preparing financially for retirement than single respondents. Higher income for both individual and household is significantly related to financial preparation. This is expected, but as shown previously, overall savings are still relatively low for most of the

sample, thus many respondents think they are preparing, where they are not as prepared as they perceive.

Preparing financially for retirement is also significantly negatively correlated with respondents' belief on the importance of social security income in retirement. The respondents who are preparing the most aggressively are less likely to think social security income is important to retirement. The study also showed that only 18% disagreed or strongly disagreed that social security income was important for retirement, thus the majority of respondents are expecting to rely on SSI during retirement.

The survey asked a variety of questions related to investment risk preferences to allow a total risk score to be computed. The respondents with the highest risk score were also the most likely to be preparing financially for retirement. This suggests that those investors who are most willing to take additional risk also the most likely to be investing for the future. Doing a better job at educating educators about investment risk and portfolio management may improve investor's willingness to save more aggressively for retirement.

The survey also asked about employer matching policies to investigate the relationship to financial preparation for retirement. Results show that there is a significant relationship between being financially prepared with employer match. Automatic enrollment in retirement accounts would likely increase participations rates. Having a default investment option, like a target retirement account, could also help overcome risk concerns and alleviate the uncertainty of having to select from a menu of investment options for those with limited investment knowledge and experience.

Table 4
Significant correlations with demographic information

Correlations	**(Panel A)**	I have been preparing financially for retirement	I have been aggressively putting money into retirement accounts
Age	Pearson Corr.	.335*	.335*
	Sig. (2-tailed)	.011	.011
Marr_Div	Pearson Corr.	.307*	.191
	Sig. (2-tailed)	.021	.159
AnnIncomeIndiv	Pearson Corr.	.392**	.297*
	Sig. (2-tailed)	.003	.025
AnnIncomeHouse	Pearson Corr.	.397**	.344**
	Sig. (2-tailed)	.002	.009
SS_ImpInRetr	Pearson Corr.	-.351**	-.032
	Sig. (2-tailed)	.008	.815
Sum_Risk_Quest	Pearson Corr.	.373**	.328*
	Sig. (2-tailed)	.004	.013

* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level (2-tailed).

Table 5
Significant correlations with university matching policy

Correlations	**(Panel B)**	I have been preparing financially for retirement	I have been aggressively putting money into retirement accounts
EmplMatch	Pearson Corr.	-.357**	-.263*
	Sig. (2-tailed)	.006	.048
PercentMatch	Pearson Corr.	.204	.468*
	Sig. (2-tailed)	.288	.010
MatchPartic	Pearson Corr.	-.453**	-.202
	Sig. (2-tailed)	.004	.225

* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level (2-tailed).

This study further analyzes the relationship between financial preparation and actual retirement contributions. Table 6 shows the monthly contribution levels for both individuals and households are significantly positively correlated to financial preparation. Individuals and households with the highest monthly contributions are those who feel the best prepared for retirement and indicate they are more aggressively saving for retirement.

Total individual retirement savings and total household retirement savings are also significantly related to financial preparation and aggressively saving. The more that respondents have in retirement accounts, the more likely they are to indicate they are financially prepared and aggressively saving for retirement. Having other investments is also significantly correlated with retirement preparation.

According to the previous Table 3, 49% of respondents are contributing $500 or less per month into an individual retirement account, yet 47% strongly agree they are preparing financially for retirement. Thus the perception of being financially prepared for retirement does not match the actuality. Even though there is a strong relationship between the amount saved and the perception of retirement preparedness, there is still a need for academics to increase monthly contributions and total retirement savings to reduce the reliance on SSI.

Each survey response was developed categorically into groups to allow an ANOVA to be computed to determine if there was a difference in mean responses of the variables. The ANOVA contrast variables were financially preparing for retirement and aggressively funding retirement for each of the independent variables (questions). For example, on the question “monthly investment”, was there a significant difference in the responses to “financially preparing for retirement” for those in the different monthly investment level categories. See Table 7.

Table 6
Significant correlations with monthly and total investment

Correlations	**(Panel A)**	I have been preparing financially for retirement	I have been aggressively putting money into retirement accounts
InvestMth	Pearson Corr.	.567**	.735**
	Sig. (2-tailed)	.000	.000
InvestMthHouse	Pearson Corr.	.494**	.673**
	Sig. (2-tailed)	.000	.000
TotRetPlan	Pearson Corr.	.398**	.626**
	Sig. (2-tailed)	.003	.000
TotRetPlanHouse	Pearson Corr.	.433**	.627**
	Sig. (2-tailed)	.001	.000
OtherInv	Pearson Corr.	-.389**	-.350**
	Sig. (2-tailed)	.003	.008

* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level (2-tailed).

Table 7
ANOVA results

ANOVA with Contrast Variable "Financially Prepared for Retirement"	**F**	**Sig.**
InvestMth	7.242	.000
InvestMthHouse	5.413	.001
TotRetPlan	3.881	.008
TotRetPlanHouse	4.594	.003
MatchPartic	4.200	.007
OtherInv	3.043	.025
RetrEmploy	2.565	.049
AnnIncomeIndiv	4.931	.002
AnnIncomeHouse	3.914	.007
AggresvFundRetrAcct	13.700	.000
SpouseLkgForwRetr	4.045	.008
SS_ImpInRetr	2.132	.090
Sum_Risk_Quest	5.243	.001

With respect to preparing financially, there was a significant difference between groups based on monthly investment categories and total retirement savings categories. Income, both individual and household, also affected how the respondents answered the question. There was also a significant difference based on income categories. The ANOVA results show that those that are investing more per month and have more saved in their retirement plans indicate they are more financially prepared for retirement (and the reverse, less invested per month, less financially prepared for retirement). Those with higher incomes indicated they were more financially prepared for retirement.

Employer match of retirement savings and those with other investment accounts categories answered the question on financially preparing for retirement significantly differently. Aggressively saving for retirement and the risk profile questions groups also responded to the question on financially preparing significantly differently between groups. Those with employer match, other investment accounts, higher level of aggressively saving, higher levels of risk profiles, all indicate being more financially prepared for retirement.

Interestingly, the results were similar for groupings of aggressively saving for retirement with respect to the variables described above. See Table 8. Thus, those indicating higher levels of investing per month, higher levels of investment in their retirement plan, employer match, all indicate they are saving more aggressively for retirement. The two key variables; preparing financially for retirement and aggressively saving for retirement, both resulted in significant differences between groups for each of these variables (i.e. the groups for aggressively saving for retirement were significantly different for each of the preparing financially groups and vice versa for preparing financially for each of the aggressively saving groups). The ANOVA results verify that those saving more aggressively for retirement indicate they are more financially prepared for retirement and those less prepared are saving less aggressively. The results of the correlation analysis and the ANOVA results provide confirming evidence with respect to financial preparedness, aggressively saving, reported savings per month, and total retirement savings.

The results of both the correlation analysis and ANOVA indicate that those who perceive themselves as preparing for retirement are actually saving more and have more income than those who do not. There were a few respondents who indicated they were aggressively saving, yet were saving less than $250 per month and had less than $25,000 in total retirement savings, but overall, those most confident were saving and investing the most. Those with low levels of savings and lower levels of retirement contributions are the most concerning. These respondents will likely be very dependent on SSI and may have to continue working beyond normal retirement ages.

V. CONCLUSIONS

This study reviews retirement preparation of academic faculty. Faculty tend to have higher education, higher income and more stimulating jobs than the general public. All of these factors have an impact on retirement age and retirement savings, by increasing the retirement age and increasing the funds in retirement accounts Results of this study show that 75% of academics plan to retire after age 65, which is higher than the general population, but expected for academics. It also shows that higher income is positively correlated with higher levels of retirement savings and investment. The study also

Table 8
ANOVA results

ANOVA with Contrast Variable "Aggressively Funding Retirement Account"	**F**	**Sig.**
InvestMth	18.474	.000
InvestMthHouse	10.879	.000
TotRetPlan	8.905	.000
TotRetPlanHouse	8.796	.000
OtherInv	3.583	.012
AnnIncomeIndiv	3.299	.018
AnnIncomeHouse	3.021	.026
SpouseLkgForwRetr	4.680	.004
Sum_Risk_Quest	4.396	.004
Retr_LookingForw	3.266	.018
PrepFinancRetr	12.999	.000

indicates that although relative savings level is higher, the actual amount of savings might not be enough to fund a comfortable retirement and respondents are more likely to be dependent on Social Security funds for retirement.

Previous studies focused primarily on perceptions of financial preparation. This study looks at perception as well as actual retirement savings. It finds that academics who perceive they are financially preparing and aggressively saving are actually saving at higher levels than those who are not. Respondents at universities and colleges that match retirement savings also report higher levels of savings. This study also finds that those with higher risk tolerance measures also save/invest at higher levels. Finding ways to encourage people with lower risk tolerance to save and invest for retirement is very important for their long-run financial security.

Another concern is that there are some respondents who perceive they are saving aggressively, but are actually saving at the lowest level. So, while they may feel their retirement contributions are sufficient, their actual savings are actually quite low. This may suggest that many individuals would benefit from better education on retirement contributions and total retirement savings required to fully fund their retirement. Additionally, schools may want to adopt an opt-out policy for retirement savings, where all employees are automatically enrolled in retirement savings accounts (generally 403b plans). Universities should also include a default investment account, such as target-date-retirement- accounts. Providing a default option would alleviate some of the stress of investment portfolio selection by employees who are not familiar with investing or are more risk-adverse.

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