

Retirement Preparedness of Generation X Compared to Other Cohorts

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Objective

According to the Census records, 40% of the population are aged between 35 and 64. This statistic means that large percentage of our nation's population are in the wealth formation phase of their life cycle and should be saving towards their retirement goals. Hence, the demand for retirement planning is anticipated to increase over the next decade. However, it seems that many workers are actually not well prepared for retirement. The Retirement Confidence Survey of the Employee Benefit Research Institute (2018) indicates that 36% of workers do not have any retirement savings. In particular, by the research of Hill (2020), Generation X is the only cohort less prepared for retirement. This research focuses on Generation X (37-51) and investigates whether this cohort is well-prepared for retirement compared to the Baby Boomers and Millennial peers. The study also models cohort effects, and identifies the key factors affecting retirement preparedness.

Significance

Many signals have implied that the demand for retirement planning will increase in the future. According to the report of Butrica et al. (2009), the pension plan is gradually decreasing, so working individuals will have limited access to pension plans. The pension plan is usually created by employers to benefit and retain their employees (Kagan, 2019). If this kind of retirement plan is missing, employees have to create retirement plans by themselves, which means that they have to save money on their own. In this sense, employees need to know how much they need after retirement and how much they have to save regularly. Retirement planning will become crucial if employees wish to have adequate resources for income after retirement.

Another significant signal of increasing demand for retirement planning is the movement of retirement plans from the defined benefit plan to the defined contribution plan (Butrica et al., 2009). The defined benefit plan is always sponsored by employers so that employers will bear the risk of the investment (Carter, 2018). In this sense, employees don't have to worry too much about their retirement plans because their benefits have already been promised. They would collect their benefits regardless of the performance of the investment. However, the defined contribution plan is usually created by employees, which means that workers should put their money in the plan. The returns or benefits after retirement will be based on the performance of the investment, and employees have to undertake the risk (Score Financial Services, n.d.). So, employees should always make appropriate decisions on how their plans would be, for example, how much they should save monthly or yearly. Since the defined benefit plan is disappearing, and the defined contribution plan is becoming universal, working individuals will need more retirement planning knowledge or assistance of financial planners.

In the circumstance that retirement planning is becoming more and more essential for workers, previous studies indicate that many people did not do well in retirement preparedness. According to the report of Employee Benefit Research Institute (2018), there are still 36% of workers who do not have any savings for retirement. Also, according to the research of Munnell et al. (2018), almost half of American working households will have inadequate income in retirement to keep their previous living standard. That fraction rose from 31% in 1983 to 40% in 1998, and 50% in 2016. Similarly, in the retirement preparedness survey conducted by Prudential (2018), two in five respondents indicate that they are

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uncertain about how much they would need monthly after retirement. The fast-increasing proportion of under-prepared workers could result from the rapid growth of purchasing power so that they need to maintain higher living standards.

Most of the earlier literature states that Generation X's retirement saving behavior is unfavorable, and this cohort is often less prepared for retirement. The institution of Retirement Living (2019) says that only 35% of Generation X think they already have enough savings for retirement compared to 75% of Baby Boomers. Though Gen Xers are young and should have more favorable views about investments, the Prudential's (2018) study implies that Generation X has less investment in retirement capitals than Baby Boomers. The Fidelity (2013) also takes the Millennials into the analysis, and the report indicates that Generation X is worse prepared for retirement than Baby Boomers but better prepared than Millennials.

The unsatisfied situations in Gen Xers' retirement preparedness might result from their psychological implication that they still have time to prepare before getting older. Sometimes it could be late when workers understand the importance of saving for retirement. This study could update previous studies using the most recent 2019 Survey of Consumer Finance (SCF 2019) dataset. The main difference is that this research will not only simply compare differences among cohorts but also quantify the cohort effects.

Methods

The research uses the SCF 2019 dataset, including 22,615 observations with 4,523 households (5 implicates). The sample includes Millennials (age 22-36), Generation X (age 37-51), and Baby Boomers (age 52-67) under the full retirement age. Retirement preparedness is measured by comparing the percentage of current retirement assets to the baseline to identify the percentage of respondents that have either achieved or those that are farther away from the estimated baseline. The retirement baseline is simulated using the computed present value of future retirement income based on several assumptions.

The wage replacement ratio is assumed at 70% in this research. The reason to use 70% is that the rationale ratio is between 70%-85% since most respondents in this dataset are very wealthy and have a very high income. According to the research of Mercadante (2019), high-income earners will not have a high wage replacement ratio. High-income workers tend to have higher retirement savings, and they might not need that much savings to replace retirement. The expected retirement age would be the full retirement age at 67, and the inflation rate is 2% based on historical records. So, the income after retirement to maintain previous living standards will be computed as: $IncomeRetired = (Income * 70\%) * [(1 + 2\%) ^ (67 - current\ age)]$.

Next, the '4 percent rule' will be assumed to get the total retirement assets needed at the beginning of retirement. The '4 percent rule' could be evolved to get the 'multiply by 25 rule,' which is a rule of thumb in retirement savings (Munnell et al., 2011). After that, the baseline will be identified by discounting the future cash flows to the current age while considering the impact of purchasing power (2% inflation). In this sense, each household will have a unique baseline of retirement savings. Then the retirement preparedness will be measured as: $Retirement\ preparedness = (Current\ Retirement\ Assets / Baseline) * 100\%$. Based on this measurement, a larger value of the retirement preparedness means that the respondent is better prepared.

The independent variables include cohort indicators, demographics, socioeconomic factors, and psychological measures. Cohort indicators are Millennials, Generation X, and Baby Boomers, which are coded as dummy variables. The control variables will include age, gender, race, marital status, income, household size, remaining life expectancy, education level, health conditions, risk tolerance, financial knowledge, and remaining life expectancy. Table 1 shows the descriptive statistics of the variables of the first implicate.

This study first visualizes the means or frequencies of some key factors across cohorts. For example, how are retirement preparedness, baseline, and retirement assets different from each generation, and whether the respondents meet their retirement needs. If the value of retirement preparedness is larger than 1, the respondent has reached the retirement baseline. Then the study conducts ANOVA analysis to get the distribution of retirement preparedness among cohorts so that the cohort differences could be identified. The analyses for this study using the SCF 2019 dataset was

conducted adjusting for the five implicates and replicate weights. Multicollinearity has been tested after the regression.

Results

The preliminary results indicate that later cohorts tend to have higher mean baselines, retirement assets, and better preparedness. Also, the percentage of having already met the retirement baseline is increasing as age. However, older generations have lower mean education levels and worse health conditions.

The one-way ANOVA identifies significant cohort differences in retirement preparedness. Table 3 illustrates the result of ANOVA analysis. Since the result has a very small p-value, the hypothesis that retirement preparedness is the same by cohorts is rejected. Then the study checks the table of Tukey's test, which shows that there are significant differences in retirement preparedness among all groups.

The OLS regression sets Generation X as the reference group, and its result corresponds to the outcome of ANOVA by quantifying the differences (Table 4). The preliminary results show that Generation X is less prepared for retirement than Baby Boomers but behaves better than Millennials. The result can be interpreted as compared to Baby Boomers, being in the cohort of Generation X will be 4.26% farther to the baseline of retirement savings but will be 4.87% closer to the baseline compared to Millennials. Income, risk tolerance, financial knowledge, education level, and health conditions are also associated with the level of retirement preparedness. Compared to the education degree of high school or less, earning a college degree will make the individual better prepared for retirement. Workers with higher risk tolerance and financial literacy tend to have a higher percentage of retirement assets to the baseline.

Conclusion

This study updates the findings from previous investigations of cohort differences in retirement preparedness. This research confirms the results from previous studies that Generation X is not well prepared for retirement, given the low proportion of their current retirement assets to the retirement baseline. Cohort effects are playing a significant role in explaining retirement preparedness.

The findings from the preliminary results infer that consumers might understand the importance of retirement savings as they become older, and retirement preparations and savings likely become more important for people as they progress with age. Consumers may not worry about retirement savings when they are young, because they still have time to accumulate wealth, however by the time they realize the importance of saving for retirement, they are likely to find themselves constrained by the time remaining to achieve their retirement goals. This research could provide guidance for consumers to save early and wisely for retirement. Additionally, the increase in human capital, including educational attainment and financial literacy, could help consumers prepare earlier and better for retirement.

This research could help promote the understanding of retirement saving behavior of different cohorts. As the demand for retirement planning services is increasing, the results of this study have implications for financial planning professionals. Financial planners may provide different advice based on the characteristics of cohorts when working with clients. The findings suggest that along with income, health condition, and risk tolerance, educating clients on their financial situations should also be considered when making financial planning recommendations.

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Table 1: Descriptive Statistics

Variables	Mean	St. Dev
Age	43.881	12.192
HH Income	\$126,145	\$505,685
HHSize	2.772	1.474
Married	1.382	0.486
Financial Knowledge	7.058	2.072
Female	0.224	0.417
Edcl	2.997	0.982
Health	1.950	0.714
N=3,709		

Table 2: Descriptives by Cohort

Cohort: Baby Boomers

Variables	Mean	St. Dev
Preparedness	0.202	0.384
Baseline	2116199	12600000
Edcl	2.975	0.981
FinKnowl	7.297	2.101
Health	2.007	0.699
Meet	0.028	0.164
N=1,458		

Cohort: Gen. X

Variable	Mean	St. Dev
Preparedness	0.160	0.307
Baseline	1073426	2923113
edcl	3.005	1.003
FinKnowl	7.151	2.066
Health	1.969	0.713
Meet	0.016	0.126
N=1,348		

Cohort: Millennials

Variable	Mean	St. Dev
Preparedness	0.105	0.175
Baseline	346112	465674
edcl	3.011	0.961
FinKnowl	6.733	2.010
Health	1.877	0.724
Meet	0.006	0.080
N=903		

Table 3: Analysis of Variance

Summary of Preparedness		
Variables	Mean	St. Dev
BabyBoomers	0.322	0.558
GenerationX	0.237	0.627
Millennials	0.115	0.204
Total	0.241	0.531

Analysis of Variance

Type	SS	df	MS	F	Sig.
Between	119.743	2	59.872	217.523	***
Within	5103.71	18542	0.275		
Total	5223.453	18544	0.282		

Preparedness	Tukey	SE	Sig
GenerationX vs BabyBoomers	-0.0845	0.0089	***
Millennials vs BabyBoomers	-0.2071	0.0099	***
vs GenerationX	-0.1227	0.0101	***

$p < 0.01$ ***; $p < 0.05$ **; $p < 0.10$ *

Table 4: Regression Analysis of the Determinants of Preparedness

Dep Var: Preparedness				
Variable Type	Variables	Coef.	SE	Sig
Cohort	<i>Ref: Gen. X</i>			
	Millennials	-0.049	0.021	**
	BabyBoomers	0.043	0.021	*
Financial Knowledge, Health and Risk	Risk tolerance	0.013	0.002	***
	FinKnowl	0.009	0.003	***
	<i>Health Status (Ref: Poor)</i>			
	Excellent	0.090	0.042	**
	Good	0.068	0.041	*
Demographic	Fair	0.041	0.042	
	Age	0.000	0.001	
	Female	-0.033	0.016	**
<i>Race/Ethnicity (Ref: Other)</i>				

White	0.012	0.021	
Black	-0.074	0.025	***
Hispanic	-0.056	0.025	**
Married	0.029	0.016	*
Educ. (Ref: <College)			
College	0.105	0.014	***
SomeCollege	0.003	0.014	
Remaining	0.000	0.000	
Ln_Income	0.022	0.007	***
HHSize	-0.008	0.004	*
Intercept	-0.345	0.115	***

N=3442

Adj. R-

Squared=0.1118

$p < 0.01$ ***; $p < 0.05$ **; $p < 0.10$ *