Saving For The Good Life: A Study of How to Increase Savings for Retirement

By: David Jaslow

Personal Section

It was a routine Thanksgiving dinner at our home on Long Island. Amidst the light banter, I overheard a troubling conversation between two sets of grandparents. One was describing the upcoming trips and recreational activities they were planning with their peers from both Florida and New York, where they had residences. The other couple was struggling to determine if the man-hours they were dedicating to their small retail business was cost-effective as their income was slowing to almost a halt. The inequity in their lifestyles was glaringly apparent. I wondered how there could be such disparity between two similarly situated families that emanated from similar communities and cultures, and that had earned similar wages over the many years of hard work. Clearly, one was financially prepared for a vibrant, long-lasting retirement, while the other was facing unsettled financial uncertainty in retirement. Had one family prepared better than the other? Had one set of grandparents made better choices? Could this have been prevented with a clearer understanding of savings options and investments? In that moment, the idea for my independent study project was born.

Before beginning my research I wanted to see if the struggle my grandparents were facing was also occurring to other families around the country. After researching and discovering that many Americans are in fact having trouble saving for retirement I started

reviewing previous literature in order to get a better understanding of retirement savings and what has been done in the past to help Americans save for retirement. I decided to focus my research on three different factors. These factors were number of funds offered, opt-in vs. opt-out plans, and the use of a descriptive name instead of the traditional 401(k) name and how they would relate to increasing savings and participation in 401(k) plans. I conducted my research at my school's research center under the supervision of Dr. Allyson Weseley.

After collecting my data, I had to become familiar with and be able to operate our school's statistical analysis program, Statistical Package for the Social Science (SPSS). With the help of my research professor and older students, I learned how to run an ANOVA, chi-square tests, as well other mathematical computations and calculations. Over four years of being in the research program and conducting various research projects, I absolutely had a better understanding of advanced math concepts that I might not have otherwise experienced or, to be sure, wouldn't have been exposed to until college.

My hope for rising freshmen interested in science and math is for them to become fully engaged in their school's research programs and to participate in and take advantage of the numerous competitions offered in their areas. The work is rewarding and can offer insights into the type of work they might embark on in their future. After graduation, I plan to work in the field of finance, investments and possibly real estate.

Research Section

I began my research by analyzing previous literature in the areas of participations rates. That review shaped the foundation upon which the data for my research project would be collected. First, the idea of offering less in order to receive more was present. On a basic level,

in the sales industry, when more jams were offered to consumers in one study and when more pens were offered in another, it led to a decrease in purchase rate. In the retirement field, one Vanguard Study found that when too many funds were offered to participants their participation rates were reduced by 2% on average for every 10 additional funds. Next, I learned that another factor found to increase participation rate was an opt-out plan. When opt-out plans were offered as compared to opt-in plans participation rate increased. Finally, and in a further effort to identify an innovative way to help fix the retirement problems in the United States, I researched how descriptive names affect consumers in the market place. For example, laundry products with the brand names Bright'n'White or Stayclean had higher consumer ratings and purchase rates than the laundry products named Nirma and Omo. After analyzing previous research on creative names, I believed this concept could also be applicable to retirement savings.

I first hypothesized that participants who were presented with an opt-out plan would save more often than those presented with an opt-in plan. However, there would be no significant difference in the amounts they saved. Participants who were offered 10 funds as opposed to 5 or 25 funds, would save for retirement more often and would tend to contribute more towards the plan. Lastly, I hypothesized that participants who were presented with a plan that contained descriptive name as opposed to the non-descriptive conventional name, 401(k) plan, would save more often and would tend to contribute more towards the plan.

Participants were offered a plan with either an opt-out condition or an opt-in condition. Under the opt-out condition, participants do not have to check off the circle to save but do have to in the opt-in condition. In the opt-out condition, people who leave the form blank were considered to have contributed the default investment of $7,500. That amount is set at 13.5%

of the individual's salary, which is considered the appropriate amount to save for an individual who makes $55,000, the median income for the United States, and wants to retire before 65.

In order to measure the effects of the number of retirement funds on retirement participation rate and contribution amount, I created a hypothetical 401(k) investment form. This form serves as the experimental stimulus. The number of retirement funds present on the form is manipulated. The form presents 5, 10, or 25 funds. The funds that are offered are fictional funds modeled after real investment funds and were divided and grouped by type of investment: domestic equity funds, real estate funds, alternative, global debt, and domestic debt. Each version of the 401(k) form has an equal distribution of types of investments. For the 25 fund sample 401(k) form, 5 of each type of fund is used. For the 10 fund sample 401(k) form, 2 of each type off fund is used. For the 5 fund sample 401(k) form, 1 of each type off fund is used.

Lastly, one version of the sample 401(k) form has the word "Super Saver" substituted in for the term 401(k) in order to determine the effect of a descriptive name on participation rate and contribution amount.

The sample for this study consisted of approximately 360 adults. Participants were recruited using Mechanical Turk. The sample 401(k) form was posted on Survey Monkey ® where it remained until each of the 12 versions recorded 30 participant responses. The sample of the study is described in the table.

Contribution amount was measured by adding up the amount each participant put into each fund. Participation rate was also recorded based upon whether or not a participant put any money into the plan. Analyses of variance (ANOVAs) were used to determine if the number of funds offered to investors, opt-in and opt-out plans, and descriptive and non-descriptive names

affected contribution amount. Chi-square tests were used to determine if the number of funds, opt-in or and opt-out plans, and descriptive and non-descriptive names affected participation rate. A p-value of equal to or less than or equal to .05 was used as the cutoff for statistical significance. Contribution amount was analyzed both with and without the data of the default investors under the opt-out condition to see if it had an effect on the amount participants saved. The findings of the analyses were similar so the results from the full data set are reported.

As hypothesized, participants who were shown an opt-out plan had a higher participation rate as compared to those who were offered an opt-in plan, x^2 (4) = 20.34 , $p <.01$, ϕ = .34. Participation in opt-out plans was significantly higher (75%) as compared to the participation rate in opt-in plans (57%) as seen below. The likely explanation for this increase in participation rate is that if participants left their form blank under an opt-out condition they still contributed a default investment as opposed to leaving an opt-in condition blank where no money would have been invested. These findings support the idea that people tend to follow the path of least resistance. In other words, participants chose to save for retirement more under the opt-out condition than under the opt-in condition because they had to do less work in order to save.
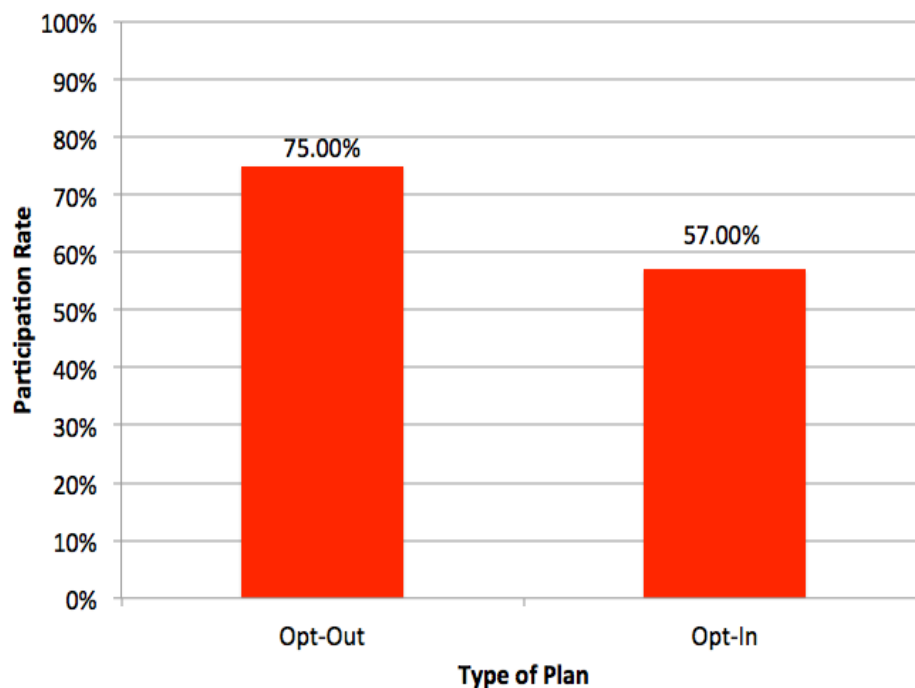
Number of funds did impact contribution amount in retirement plans, $F(2, 348) =$ 13.62, $p < .01$, $\eta p2 = .13$. As hypothesized, a curvilinear relationship was found between number of options and contribution amount. As shown below, participants contributed more towards retirement when offered 10 funds ($8,376.67) as opposed to 5 ($5,309.17) or 25 ($4,159.58) funds. When few funds were offered, participants may not have thought they had enough options to feel comfortable investing a substantial portion of their salary. On the other hand, too many options may have overwhelmed the participants and resulted in a more cursory reading of the material which, in turn, could have reduced their confidence in their decisions.
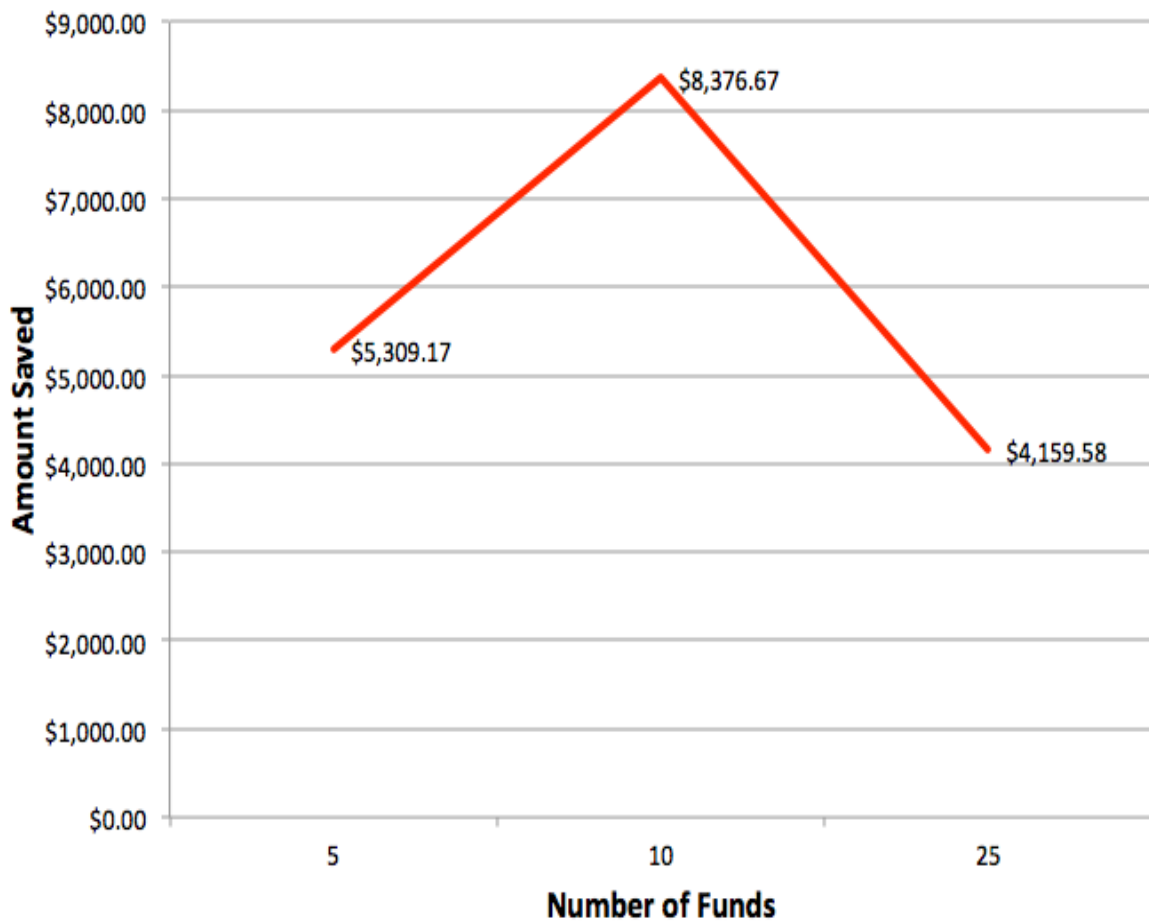
As expected, descriptive names positively impacted contribution amount relative to non-descriptive names, $F(2, 348) = 15.79$, $p < .01$, $\eta p2 = .09$. As shown below, when the term Super Saver was used, participants contributed more towards retirement ($7,304.17) when compared to when the term 401(k) was used ($4,592.78). In previous studies, descriptive names caused an increase in the consumers' desire to purchase the product. Unlike the term 401(k), the term Super Saver is descriptive in that it conveys some information about the purpose of the fund.
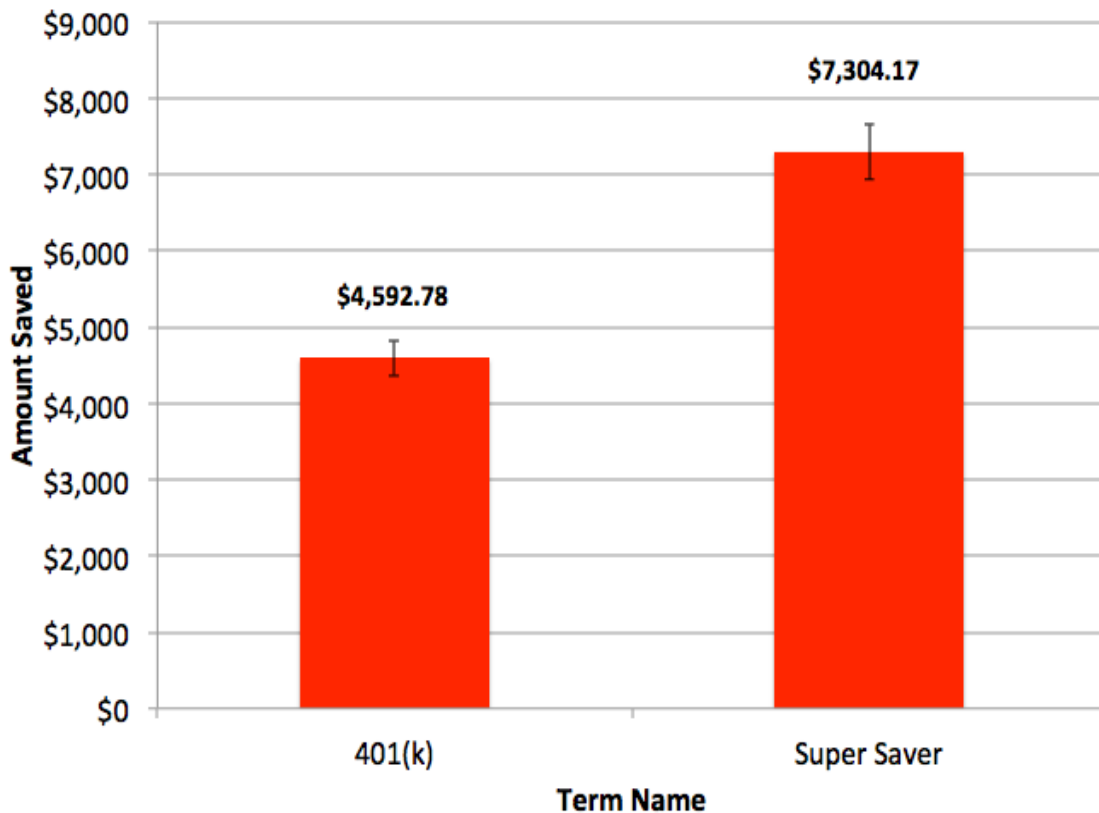
This present study was the first study to experimentally investigate how the number of funds offered, the use of descriptive names, and the use of a default enrollment strategy could affect contribution amount and participation rate. Therefore, it is important that the findings of be replicated in other studies.

One limitation is that participants might not have read the sample 401(k) as carefully as reading an actual 401(k) form, because they were not looking to put their real money away into these accounts. Additionally, considering participants were offered a monetary incentive for their participation, they might have filled out the forms as quickly as possible instead of treating it as an actual 401(k) form. In order to avoid some of these limitations, this study could possibly be carried out in a real life setting. By conducting this study with an actual company and real employees, the accuracy of the participants' responses and actions will be much more realistic.

One possible area of exploration for further study is to try to investigate whether different types of products or services have different ranges of optimal choices. In the current study, the optimal range of options was centered on 10. However, in the choice overload study about pens, the optimal range of offered pens to increase participation rate was near 6. By further investigating different types of investment plans and different types of employees, optimal ranges for each plan could be found. Additionally, instead of only using the term Super Saver as a name for the retirement plans, other types of names should be used in order to broaden the effect of descriptive names on retirement savings instead of it being specific to one name. Also, more possible methods to increase participation rate could be looked at considering the only effective way that was found was to use an opt-out plan. Some of these methods might include the types of funds that are offered to different types of employees. For example, more risky, volatile funds might be more appealing to higher-income employees.

The curvilinear effect of number of funds on contribution amount that was found could have a large implication on shaping the way investment firms and businesses design retirement plans. Employers will now be able to help increase contribution amount amongst their

employees in retirement plans by creating plans that contain approximately 10 funds. Secondly, when a name such as Super Saver is used instead of the term 401(k) participants contributed much more towards their retirement savings account. Employers will be able to integrate a descriptive name into their plans in order to encourage employees save more. Lastly, when an opt-out plan was used instead of an opt-in plan, people were more likely to participate in their retirement savings plan. Considering Americans are struggling with retirement planning, employers can use opt-out retirement plans to get employees to start saving at an earlier starting point and at a more robust rate. As the average lifespan in the United States expands, families will need to be even more prepared for their retirements. By continuing research and incorporating the ideas found in this study, companies can start doing more to help people save and, as a result, help them lead measurably improved lives in retirement. I hope to continue this research as a freshman at Cornell University in the fall.