# Using Behavioral Economics to Encourage Employees to Make Better Decisions about their §401(k) Plans

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There are many factors that will determine the balance of an employee's §401(k) plan when he or she reaches retirement. The state of the economy, the trajectory of the markets and other outside factors during an employee's career all come into play. Every time an employee makes a §401(k)-related choice there is an optimal and a suboptimal decision, and poor choices can lead to lower account balances and deferred retirements. Because §401(k) plans were created as simple supplements to traditional defined benefit (DB) pension plans, the consequences of suboptimal employee decisions used to be relatively minor. Over time, however, as the importance of §401(k) plans has grown, so have the consequences. In addition to hurting employees, suboptimal decisions can also result in an older workforce with higher labor costs and lower productivity. This article will cover why employees make suboptimal decisions regarding their §401(k) plans and what organizations can do to improve employees' §401(k) decision making.

## Suboptimal Decisions

Why do employees make poor §401(k) plan decisions about savings rates, investment selections, in-service withdrawals and distribution elections? Behavioral economists[1] say it is human nature. Although people should rationally think through such important decisions, many find the process laborious and slow. Instead, they rely on heuristics (mental shortcuts based on "rules of thumb") and cognitive biases (commonly observed patterns of non-rational thinking). While heuristics work well in everyday life because they are based on fast, efficient, intuitive thinking, heuristics and biases often lead employees to make suboptimal §401(k) plan decisions. Figure 1 on the next page shows some examples of suboptimal decisions based on biases or heuristics.

One of behavioral economics' best tools for combating suboptimal §401(k) plan decisions is "choice architecture" — the science and art of how choices are communicated. Organizations can use choice architecture strategies to help employees explore better options and make better benefit elections.

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[1] Behavioral economics is a field of study that blends psychology and micro-economics. The field is both descriptive (Why do people make suboptimal decisions?) and prescriptive (Under what conditions might decisions improve?). For more information, see "Beyond Rational Thinking: Using Behavioral Economics to Improve Workforce Health and Organizational Outcomes" (http://www.sibson.com/publications/perspectives/Volume_19_Issue_3/beyond-rational-thinking.html) in the December 2011 issue of *Perspectives*.

| Figure 1: Biases and Heuristics Lead to Suboptimal §401(k) Plan Decisions | |
|---|---|
| **Bias or Heuristic** | **Sample Suboptimal Decision** |
| **Hyperbolic discounting:** People overvalue current costs and benefits. Future costs and benefits are excessively discounted. | Employees undervalue the importance of saving for the future and overvalue the impact of current income on lifestyle. |
| **Complexity aversion:** People who are presented with too many complex options procrastinate, give up or default. | Employees who are presented with too many investment options often are paralyzed and end up in the default option. |
| **Clue-seeking bias:** People who must make a complex decision look for clues, which they hope will be helpful. | Employees choose the first option on a list of options, thinking it is what the company recommends. |
| **Endowment effect:** People place a greater value on a possession than on what they would pay for the same item. | Employees stick with an underperforming investment option and are influenced by sunk costs (past costs that have already been incurred and cannot be recovered). |
| **Availability heuristic:** People who must make a decision weigh recent evidence and readily available information. | Employees invest in more stable alternatives after a down market rather than maintaining their previous asset allocation strategy and benefiting from market upswings. |
| **Probability neglect:** People tend to ignore or discount the effect of probability in decision-making. | Employees who select lump-sum distributions ignore the possibility of living a very long life. |
| **Sentinel-event bias:** People's viewpoints and decisions are heavily influenced by emotionally impactful events. | Employees question the value of annuities following the early death of a popular retiree who chose an annuity. |
| Source: Sibson Consulting | |

## Make Better Benefit Elections

Communicating vividly in a manner that helps employees relate to what their lives will be like in retirement can help them make better retirement-planning decisions. Figures 2 and 3 on the next page highlight recent academic research that illustrates how choice architecture can encourage employees to dramatically increase their savings rate and purchase an annuity rather than taking their retirement savings as a lump sum.

As the research in Figures 2 and 3 on the next page demonstrates, helping employees personally relate to what their lives will be like in the future can dramatically affect their choices and improve the outcome of their decisions.

**Figure 2: Using Vivid Communications and a Personalized Presentation to Increase Employees' Savings Rate**

**Approach***

Realistic age progression software was used to help young adults visualize what they might look like at age 70. Half of the subjects saw images of their future, older selves in immersive virtual reality. The control group saw images of themselves at their current age. Both groups were provided with realistic retirement planning education and current and future income modeling capabilities.

**Results**

- Participants who saw their future selves contributed an average of 6.17 percent to their hypothetical retirement plan.
- Participants who saw their current selves contributed an average of 4.41 percent to their hypothetical retirement plan.

* "Increasing Saving Behavior Through Age-Progressed Renderings of the Future Self. " Hal E. Hershfield, Daniel G. Goldstein, William F. Sharpe, Jesse Fox, Leo Yeykelis, Laura L. Carstensen and Jeremy N. Bailenson. *Journal of Marketing Research* Vol. XLVIII (November 2011), S23–S37.

**Figure 3: Emphasizing Purchasing Power over Return on Investment (ROI) to Increase Annuity Selections**

**Approach***

Subjects were asked, "What should Mr. Red do with his §401(k) plan savings when he retires? Take a lump sum or an annuity?" The annuity was described as follows:

- ***Consumption (Purchasing Power) Framing*:** "Mr. Red can spend $650 each month for as long as he lives in addition to Social Security. When he dies, there will be no more payments."
- ***Investment (ROI) Framing*:** "Mr. Red invests $100,000 in an account which earns $650 each month for as long as he lives. He can only withdraw the earnings he receives, not the invested money. When he dies, the earnings will stop and his investment will be worth nothing."

**Results**

- When presented with the consumption framing, 71 percent of the study participants chose the annuity.
- When presented with the investment framing, 21 percent of study participants chose the annuity.

* "Why Don't People Insure Late Life Consumption? A Framing Explanation of the Under-Annuitization Puzzle." Jeffrey R. Brown, Jeffrey R. Kling, Sendhil Mullainathan and Marian V. Wrobel. National Bureau of Economic Research Working Paper No. 13748. January 2008.

## Increase Savings

Many employers with §401(k) plans use auto-enrollment strategies to help their employees avoid suboptimal decisions. Qualified automatic contribution arrangements (QACAs) allow sponsors to specify a default savings percentage and qualified default investment arrangements (QDIAs) allow them to specify a default investment option for people who fail to make affirmative elections.

With a QACA, employees may mistakenly believe that the organization is providing them with a "clue" that a 6 percent contribution rate will be sufficient to provide an adequate retirement benefit. Although QACAs and QDIAs are helpful, employees may need to be encouraged to save even more. One effective strategy involves pre-commitments for future contribution increases.

For example, the *Save More Tomorrow*[2] approach asks employees to allocate a significant portion of their *future* salary increases to their §401(k) plans. This strategy, which costs employees nothing in today's dollars, is very attractive to them because it is timed to coincide with future pay increases — typically resulting in an increase in take-home pay each time their contribution rate goes up.

When the financial services organization TIAA-CREF added auto-enrollment and pre-commitments for future contribution increases to its §401(k) plan, participation grew from 63 percent to 95 percent and the average deferral rate rose from 4.7 percent to 7 percent of salary.[3]

Figure 4 compares three approaches to choice architecture and shows how employers can frame the options to encourage employees to choose a version of *Save More Tomorrow* that Sibson Consulting calls Save Faster with Future Pay.

**Figure 4: Comparing Three §401(k) Plan Choice Configurations**

| Traditional Choice Structure | QACA Safe Harbor | Save Faster with Future Pay |
|---|---|---|
| You contribute 0% - 10% of salary: ___ % | Choose A or B:<br>☐ Choice A: You contribute:<br>• 3% of your Salary in plan year 1<br>• 4% in plan year 2<br>• 5% in plan year 3<br>• 6% in future years<br>☐ Choice B: You contribute 0% - 10% of salary: ___ % | Choose A or B:<br>☐ Choice A: You contribute:<br>• 3% of your salary in plan year 1 and<br>• 60% of your future pay raises (40% will go to your paycheck) until your future contribution reaches the 10% maximum §401(k) contribution amount.<br>Note: There is a minimum annual increase in your contribution equal to 1% of salary until the 10% maximum limit is reached.<br>☐ Choice B: You contribute 0% - 10% of salary: ___ % |
| Default = 0% of pay | Default = Choice A | Default = Choice A |
| The company matches your contribution dollar-for-dollar up to 1% of salary. The company also matches 50 cents per dollar on your contribution amounts over 1% of salary and up to 6% of salary. | | |
| Source: Sibson Consulting | | |

[2] *Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving.* Richard H. Thaler and Shlomo Benartzi. August 2001.

[3] "Redesigning Retirement Plans with R21 Principles: Case Study of the Employee Retirement Program for the TIAA-CREF Family of Companies." Michael Chambers, Deborah Hamilton, Paul J. Yakoboski. TIAA-CREF Institute. *Trends and Issues*, November 2011.

There are many plan design variations in the Save Faster with Future Pay model. For instance:

- The first-year contribution may be higher than 3 percent of salary.
- The employee contribution can be held at 6 percent of salary after plan year 3 if pay raises are not sufficient to generate a higher §401(k) plan contribution.
- The maximum automatic contribution may range from 6 percent to 10 percent of salary.

## Explore Every Available Option

Despite the tax advantages with defined contribution retirement plans and the prevalence of employer matching contributions, some employees may have other financial commitments that they see as preventing them from putting money in the plan. There are, however, two approaches that can help:

- The Retirement Savings Contributions Credit[4] provides a tax credit to lower wage earners who make contributions to employer-sponsored retirement plans. It may mean the difference between contributing and not contributing.
- If the employer has properly structured its vacation, sick leave and §401(k) plans, unused vacation and sick leave benefits can be rolled over into a §401(k) plan automatically at the end of each year[5] or at retirement.[6]

Although these arrangements may be very helpful, they can appear complex to employees. Effective coaching and clear choice configurations can make it easy for employees to save and save more than they thought possible.

## Understand Complex Issues

One of the tenets of choice architecture is to communicate complex information as simply and clearly as possible. For example, Figure 5 on the next page illustrates a common approach to communicating distribution options and a much simpler, easier-to-understand approach.

[4] http://www.irs.gov/pub/irs-pdf/f8880.pdf

[5] Rev. Rul. 2009-31

[6] Rev. Rul. 2009-32

**Figure 5: Two Approaches to Configuring Distribution Options**

| Typical Retirement Election Language | Simplified Retirement Election Language |
|---|---|
| ➢ If you are married when your benefit begins, your benefit will be paid to you as a Qualified Joint and Survivor Annuity. A Qualified Joint and Survivor Annuity provides reduced, equal monthly payments to you during your lifetime and, if your spouse lives longer than you, to your spouse for your spouse's lifetime. Although your monthly benefit payments are reduced, the payments to you and the survivor benefit for your spouse have the same actuarial value as the Single Life Annuity described above. If you are married and your spouse consents, you may elect to receive one of the optional forms of payment described in the column to the right. All of the optional forms of payment have the same actuarial value as the Single Life Annuity.<br>➢ Single Life Annuity: Monthly Benefit = $1,000<br>➢ Joint and Survivor Annuity = $667, reducing to a $500 survivor benefit | Choose one of the following monthly income streams for your retirement benefit:<br>☐ $667 monthly income while you and your spouse are both living.<br>$500 monthly income for your spouse after you pass away.<br>☐ $1,000 monthly income while you and your spouse are both living.<br>$0 monthly income for your spouse after you pass away.<br>Under this option, your spouse must sign a notarized consent form. |

Source: Sibson Consulting

## Getting Started

Suboptimal employee decision making has serious consequences for employees and employers. Using choice architecture to encourage employees to make better decisions not only improves their financial wellbeing, it may help the organization lower labor costs and improve its workforce management outcomes.

Before they can start using choice architecture, employers must begin applying behavioral economics by asking:

- How prevalent are suboptimal decisions in the organization?
- What behavior needs to change?
- What value gains may result from behavior change and better decisions?

To get started with such an inquiry, §401(k) plan sponsors should look at:

- Participant account balances and savings rates to assess future income replacement.
- Asset allocation reasonableness, given participant ages.
- Retiree distribution elections, marital status and longevity risk.

Organizations can then:

- Mine participant election and consumer decision data to identify and quantify the impact of suboptimal decisions.
- Educate and train their employee benefits department, committee, or task force on behavioral economics.
- Establish behavior change goals and review how to achieve them and the cost of change.

## Conclusion

Employees who make suboptimal decisions regarding their §401(k) plans hurt themselves and the organization by under saving and delaying retirement. By understanding behavioral economics and using choice architecture, organizations can encourage employees to maximize their savings and build a healthy retirement plan. Both the employee and the organization win.

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