



**Defined Contribution  
Institutional Investment  
Association**

*Dedicated to Enhancing Retirement Security*

**Testimony before the ERISA Advisory Council  
on Employee Welfare and Pension Benefit Plans**

**Lifetime Income Solutions as a Qualified Default Investment Alternative (QDIA)  
Focus on Decumulation and Rollovers**

**June 19, 2018**

**Executive Summary**

In this testimony, we provide insights regarding lifetime income (LTI) solutions as a qualified default investment alternative (QDIA) based primarily on the collective input of Defined Contribution Institutional Investment Association (DCIIA) members and plan sponsors as compiled in two surveys conducted by DCIIA in May/June 2018.

We explore key questions related to LTI solutions, including their role within a plan's QDIA and related considerations, including the likelihood of a participant's being invested in the QDIA at retirement. Those in QDIAs near retirement are more likely to have shorter tenures, lower balances and potentially lower salaries – those that lack adequate retirement savings because they could not or did not save enough or those that have multiple retirement savings accounts from multiple jobs. The idea of long-tenured participants retiring and utilizing the LTI features in a QDIA may be less common than initially anticipated. As LTI solutions continue to develop, it is important to consider these demographics when assessing their effectiveness.

The specific questions laid out in the scope are addressed and relevant survey data and findings noted. The topics covered include:

1. Definition of LTI within a DC plan
2. Rationale for including LTI in a DC Plan
3. Observations of the usage of LTI products in DC plans
4. Assessment of deterrents to incorporating LTI products in DC plans
5. Benchmarking and measuring performance of options with LTI features
6. Review of portability of LTI Options including plan-to-plan rollovers
7. Cost assessment of LTI Options
8. Documentation of LTI designs with age-based income features
9. Assessment of risk related to LTI products
10. Ideas to encourage participants' use of LTI products

We also surveyed and obtained input on new or innovative solutions and approaches to addressing lifetime income (an issue highlighted in the scope).

The DCIIA surveys showed that the most common LTI solutions are various diversified investment options focused on capital preservation and income generation as well as managed accounts. Guaranteed, illiquid, and/or insurance-based products may be more difficult to implement than daily liquidity products that are relatively simple to understand and similar in nature to the products already on the Plan's investment lineup. A fiduciary safe harbor was a top priority among both plan sponsors and solution providers. A key data point that arose in the surveys was that 37% of the Plan Sponsors surveyed still indicated, "My company does not want to take the risk of having certain lifetime income products or services in the DC plan".

An awareness of the different needs and perspectives of plan sponsors vis-a-vis participants is an important consideration, especially when assessing various complex product risk/return scenarios. LTI solutions in a DC plan should in most cases provide for economies of scale (i.e., institutional pricing), some degree of fiduciary oversight over the products offered to participants, and access to services that are likely to improve retirement outcomes for many investors.

In the Appendix, a description of the DCIIA surveys is provided, along with a related working paper from Morningstar that informed the preparation of the testimony. DCIIA intends to provide supplemental materials going forward as we continue to address these important topics.

## **Introduction**

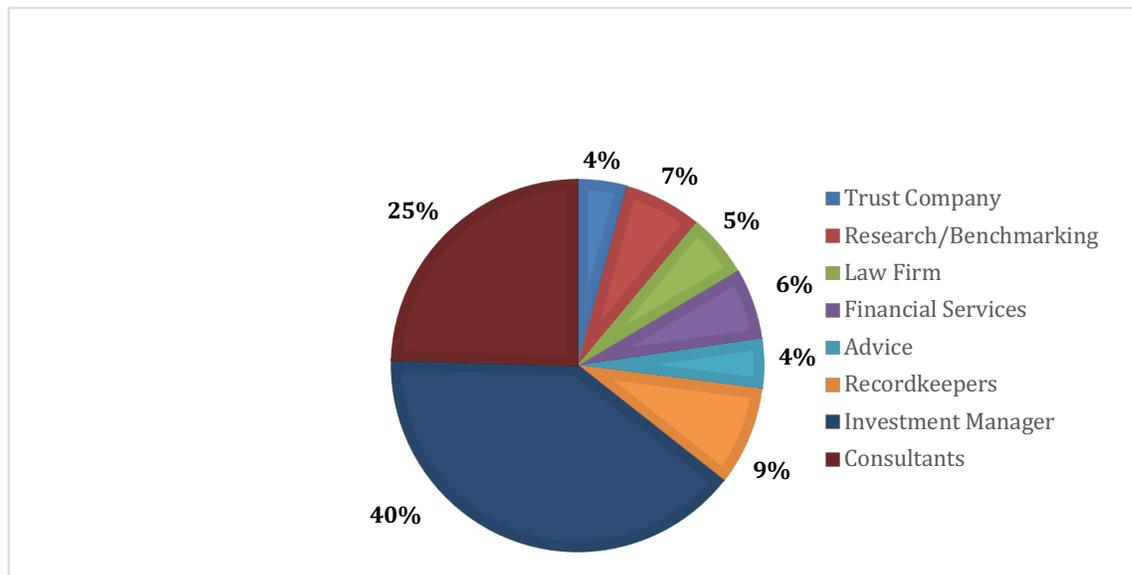
Good morning and thank you for your time today. My name is Neil Lloyd. I am Head: US DC & Financial Wellness Research at Mercer, but I have been invited in my capacity as the Chair of the Retirement Income Committee of the Defined Contribution Institutional Investment Association (DCIIA).

My written testimony was developed in consultation with other members of DCIIA's Retirement Income Committee; however, my remarks today reflect my own views, and not necessarily those of DCIIA or its members, Mercer, any affiliated company of Marsh and McLennan Companies, or any of their offices, directors or employees.

As background DCIIA is a non-profit association dedicated to enhancing the retirement security of American workers. DCIIA does this by fostering a dialogue among the leaders of the defined contribution community who are passionate about improving defined contribution plan design and participant outcomes. DCIIA members include investment managers, consultants, law firms, recordkeepers, insurance companies and others, all of whom are committed to the best interests of defined contribution plan participants.

Ending 2017, DCIIA comprised more than 160 member organizations and today has more than 325 Plan Sponsor organizations that we regularly engage with via DCIIA's white papers, webinars, surveys, email communications and live events. The make-up of the member organizations is set out in the below pie chart.

DCIIA Member Composition as of 12/31/17



In preparing this response we have provided comments on each of the bullets set out in the *EAC LTI QDIA Issue Scope 5 24*. In certain cases we have limited our comments but we have provided more detail on specific questions where it was easier for DCIIA to use the breadth of its membership to the advantage of the testimony. As part of this effort we conducted two surveys, one of DCIIA members and one of Plan Sponsors. Both were conducted in a very tight time frame, but we believe the results do provide additional color to some of the issues raised.

An overview of the two surveys is included in **Appendix A**, but in summary they reflect the views of 45 DCIIA members and 48 Plan Sponsors. We also acknowledge that the Plan Sponsor sample may not be broadly representative due to the fact that the respondents to our survey are organizations who are engaged with DCIIA—that is, we may anticipate that these organizations are more engaged with industry dialogue around retirement issues than a broader spectrum of U.S. plan sponsors.

**Lifetime Income Solutions as a Qualified Default Investment Alternative**

Before we address the specific bullets set out in the Scope there are two key additional issues we wanted to address:

1. The value of lifetime income (LTI) solutions in a Plan’s qualified default investment alternative (QDIA) may be severely limited if a Plan does not allow for partial withdrawals.
2. Many believe that if LTI solutions are in a Plan’s QDIA that this will address the lifetime income needs of most participants. Hence a key issue that should be evaluated is:

*Will participants still be in a QDIA at retirement? Or what percentage of participants is likely to be in the QDIA at the time of retirement?*

Clearly if very few participants are in a QDIA at retirement then the effectiveness of including lifetime income solutions as a QDIA may be less than expected. However, there may be other behavioral reasons why having a lifetime income solution included in a QDIA may still add value even if few participants are in the QDIA at retirement.

To address this second issue, we looked for input from the DCIIA membership. However, a problem with existing data sets is that target date funds (TDFs) only became the dominant default investment option (i.e., QDIA) after the Pension Protection Act of 2006. Hence older members and longer-tenured participants are likely to have had a default other than a TDF and many such plans did not conduct a re-enrollment. Vanguard's "How America Saves" surveys do show that the prevalence of TDFs declines with both age and tenure but representatives of Vanguard agreed that it is difficult to assess to what degree older members are still in their QDIA given the legacy impact of other defaults.

Two recent quotes from DCIIA members question the degree to which participants will still be 100% invested in TDFs (which typically today are the QDIAs) near retirement:

*" . . . research shows that even participants who were defaulted into a target date fund, by the time their balance gets to \$100,000, about 80% of those participants have added something else to their target date fund position", Drew Carrington, Head of Institutional Defined Contribution at Franklin Templeton, in an Employee Benefit News article, "You call that 401(k) diversification? Take a closer look", May 25, 2018*

*" . . . two-thirds (67%) of fully invested TDF users in 2007 were no longer fully invested in TDFs by 2017", The Impact of Managed Accounts and Target Date Funds in Defined Contribution Plans, Alight, May 2018*

Both raise questions as to whether participants will still be in the QDIA by the time they get to retirement. They also raise questions as to how participants near retirement may need a more tailored solution, beyond the lifetime income solution envisaged within a QDIA. Nevertheless it is probably equally true that even having a partial investment in a QDIA incorporating a lifetime income solution could still be useful.

David Blanchett of Morningstar (a DCIIA member) conducted an investigation into this issue, which we have included in **Appendix B**. This study was based on an original sample of over 500,000 participants. In order to avoid the complication of legacy defaults David limited the study to participants with a tenure of three years or less. While one can question whether this sample is representative of the whole U.S. retirement population, it does give us a good starting point.

Blanchett's conclusion of this study was:

*"This analysis strongly suggests that while default usage does decline among older participants, the reason for the decline is primarily a function of the characteristics of older workers in DC plans, not simply because the investor is older. For example, we found in our logistic regression that default usage declines for longer tenures, higher savings rates, higher salaries, and higher balances, and these are all*

attributes that are more likely to be consistent with older workers. These findings have important implications for creating default investments for older participants, since defaults are primarily based on age today.”

We cannot conclusively answer whether participants will still be in a QDIA at retirement, or what percentage of participants is likely to be in the QDIA at the time of retirement. However, the above material does suggest that:

- Those in QDIAs near retirement are more likely to be those with shorter tenures, lower balances and potentially lower salaries.
  - Hence including LTI features in a QDIA would address participants who are more vulnerable;
  - Shorter-tenured participants may be more likely to still be invested in the QDIA, but shorter-tenured participants will likely have other retirement balances either within IRAs or other DC plans. It would be very feasible for such a participant to have multiple DC balances all with different QDIAs including LTI solutions.
- The idea of long-tenured participants retiring and utilizing the LTI features in a QDIA may be less common than initially anticipated.

This analysis certainly does not conclude that there is no value in offering LTI solutions as part of a QDIA; however, it does show that an LTI solution included in a QDIA may have less impact than some would hope and may manifest itself differently than anticipated.

With regard to the bullets set out in the Scope we can respond as follows:

### **1. Definition of LTI within a DC plan**

While we recognize that there will be different interpretations, in general we would define an LTI as:

Any product, solution, or service that simplifies or facilitates the process of income generation during retirement/decumulation. This could be:

- An asset-only solution (e.g., an income –focused investment portfolio);
- A solution/product that incorporates an advice element (e.g., a managed account option);
- Something that incorporates a guarantee (e.g., an annuity).

While we suspect most would not include this within the definition of LTI, we do believe that some pure advice solutions equally have a key role in the facilitation of LTI. This would include Social Security claiming advice tools as well as income advice tools.

### **2. Rationale for including LTI in a DC Plan**

The “average” DC investor, or really saver in general, is not wealthy, and may not have access to the same type services/information in the retail space (i.e., as an individual) compared to what may be available in the DC plan, both from cost and quality perspectives.

LTI in a DC plan should in most cases provide:

- for economies of scale (i.e., institutional pricing);
- some familiarity and comfort—participants are likely to feel more comfortable with products offered through their DC Plan;
- some degree of fiduciary oversight over the products offered to participants (although balance is required to ensure the oversight burden on the Plan fiduciary is not too much); and
- access to services that are likely to improve retirement outcomes for many investors.

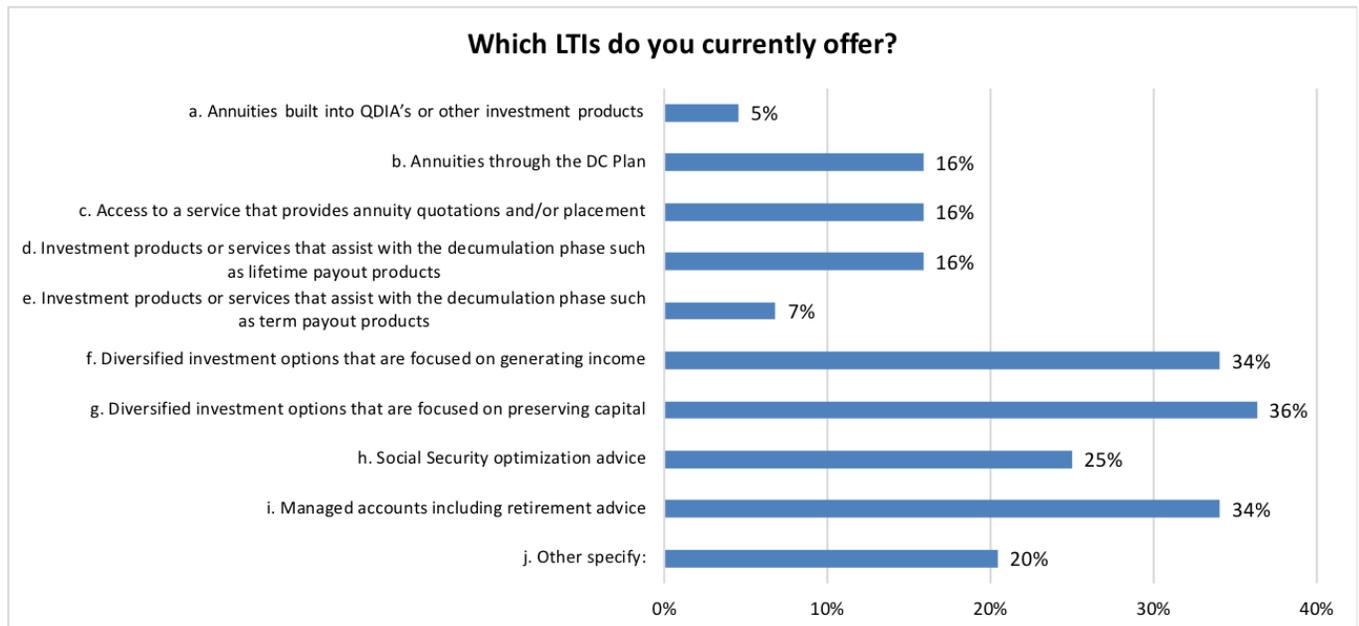
**3. Observations of the usage of LTI products in DC plans**

In anticipation of this testimony, we conducted a survey of DCIIA members and were able to collect a sampling that was generally illustrative of the prevalence of LTI products/solutions (please see chart below). Probably most notable was that guaranteed products/solutions marginally showed more prevalence than non-guaranteed products/solutions. (Please note that a given product may have more than one of the below characteristics.)

We believe that with additional time we can compile a more thorough inventory and plan to do so. We would be happy to share this information as we believe it will provide a useful list of LTI products currently being offered in the marketplace.

	Includes income Guarantee (Variable or Fixed Annuities)	With regular income as a goal (but not a guarantee)	Designed to create income for a specified period (or term)	Service that provides annuity quotations and/or placement	Others
Prevalence	52%	46%	35%	15%	17%

We similarly asked Plan Sponsors which LTI products they offered. The results are summarized in the following chart:

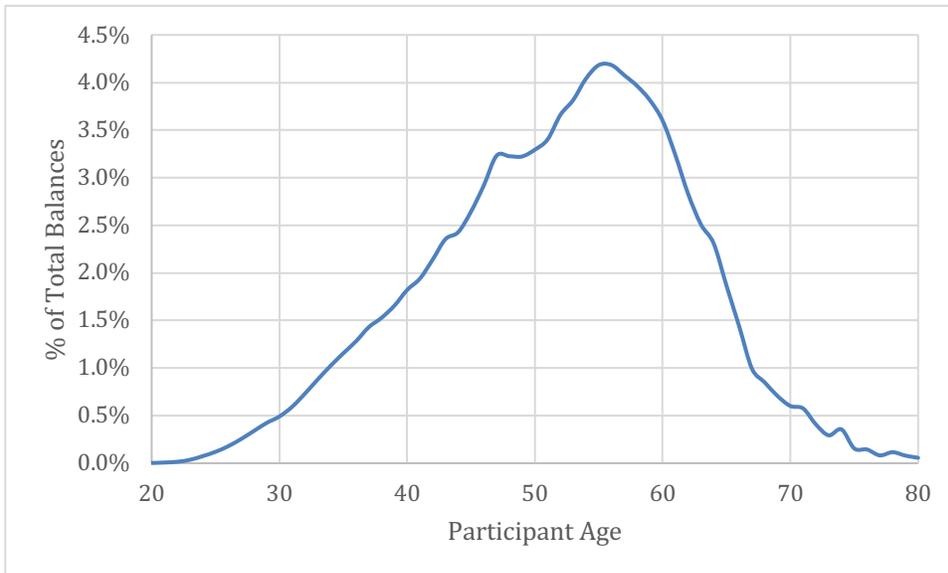


It is quite noticeable from the feedback that the most common LTIs are various diversified investment options as well as managed accounts. The prevalence of annuity-based solutions actually offered by sponsors is somewhat less, and a lot less than may have been the impression provided by the DCIIA member survey, which is a representative sample of the products available in the marketplace.

What these surveys do not show is the utilization. With this in mind, we also explored two other issues: what are the assets held by retirees and near-retirees and what other statistics are there that address which withdrawal options plans offer?

Using Morningstar's aforementioned dataset, Blanchett found that the distribution of total assets by age shows a material decline after age 55. Given that assets are typically going to be largest around retirement, this reinforces a preference among participants to fund retirement using IRAs versus 401(k) plans. (Please see chart on following page.)

Distribution of 401K Assets by Age (Morningstar dataset)

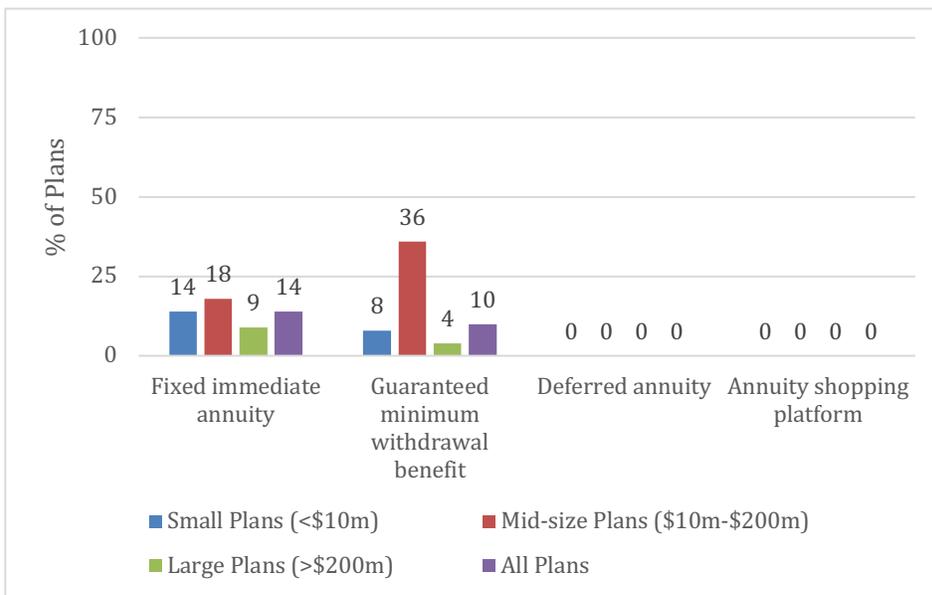


Source: Morningstar

The GAO Report in 2016 made it clear that income options are not widely available, therefore we can't expect utilization to be high. Their study reported the following numbers on the availability of guaranteed income options:

Selected 401(k) Plan Adoption Rates for Withdrawal Options by Plan Size

Percentage of plans covered by GAO’s review offering select withdrawal options



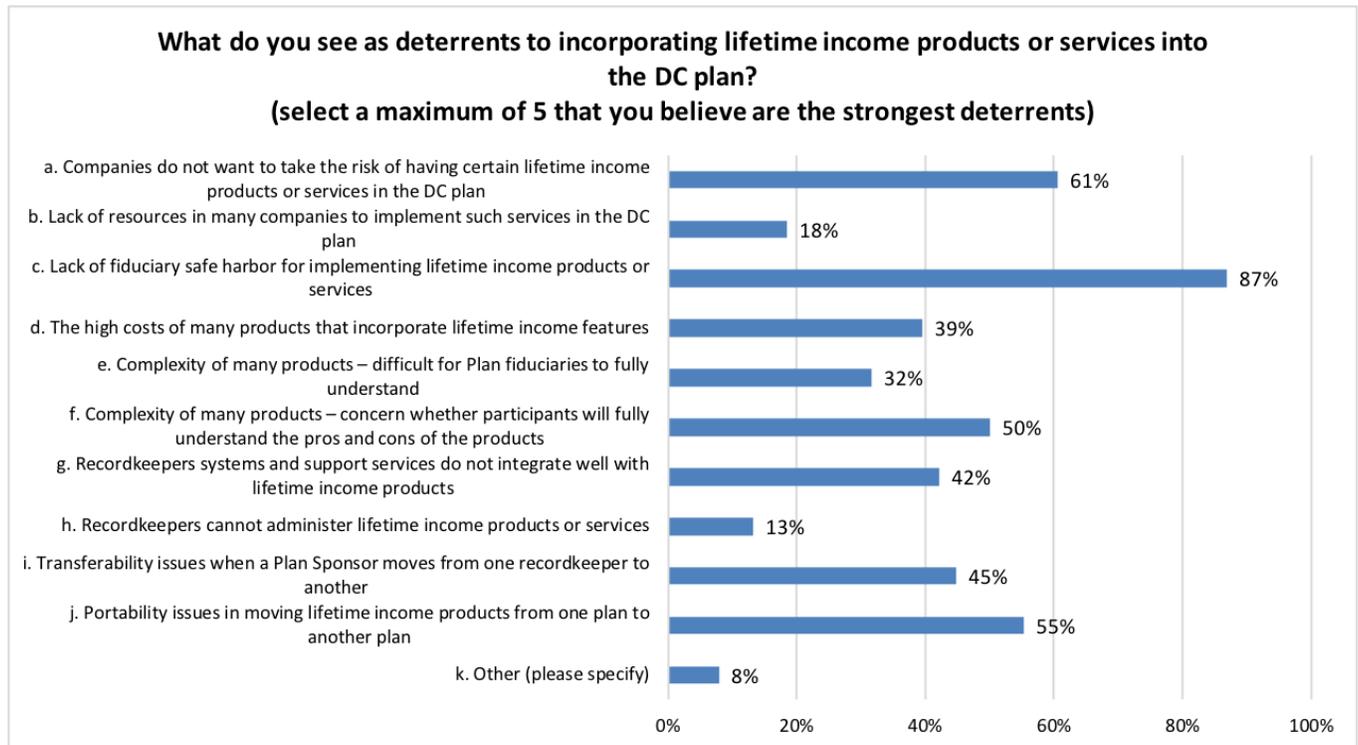
Source: GAO -16-433, 401(k) Plans: DOL Could Take Steps to Improve Retirement Income Options for Plan Participants

**4. Assessment of deterrents to incorporating LTI products in DC plans**

The deterrents are not universal and they typically depend on the product or solution being considered. In general, we expect more obstacles to the incorporation of guaranteed, illiquid, often insurance-based products. We would anticipate fewer concerns with daily liquidity products that are relatively simple to understand and similar in nature to the products already on the Plan’s investment lineup.

To gain a broader picture, we asked both DCIIA members and Plan Sponsors to select five deterrents from a list of 11. The results were as follows:

**DCIIA Member Responses (non-plan sponsor):**

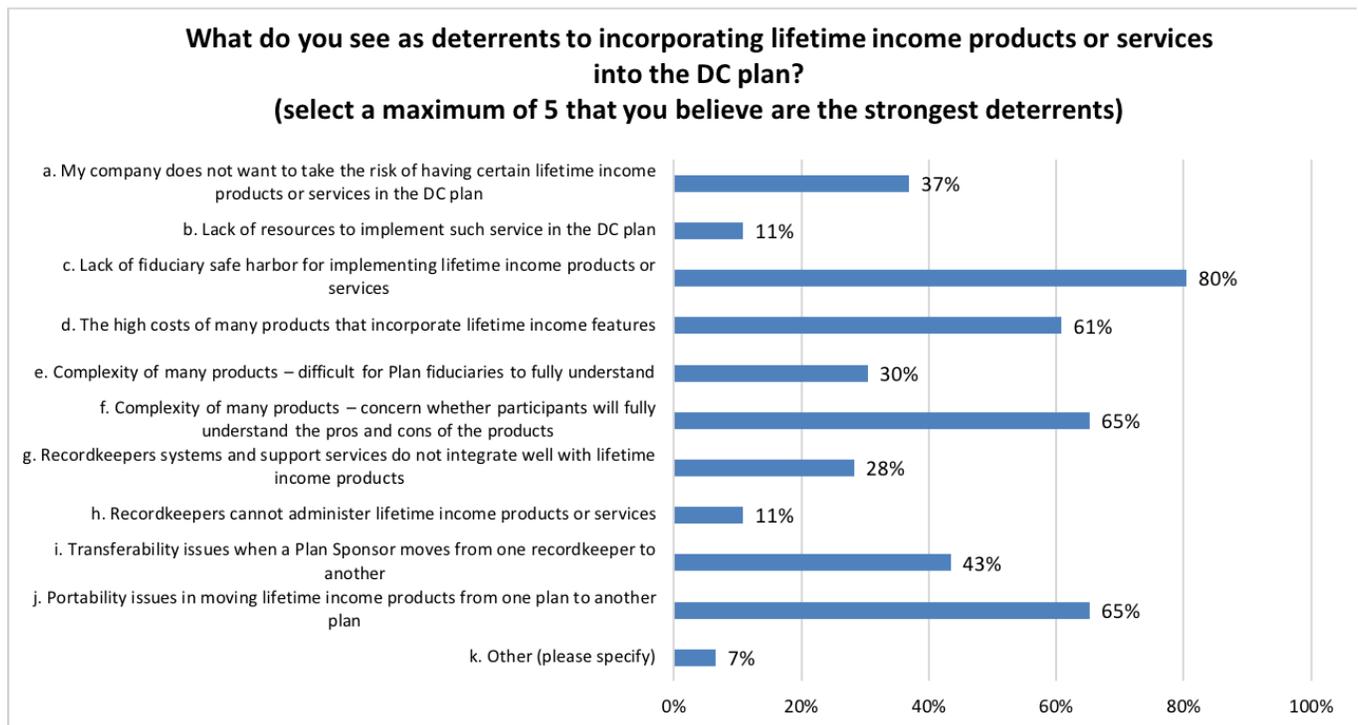


While the lack of a fiduciary safe harbor was the most commonly mentioned deterrent, it was noticeable that the next two options were:

- Plan-to-plan portability; and
- Companies do not want to take the risk of having certain lifetime income products or services in the DC plan.

One may argue that the inclusion of a fiduciary safe harbor would address companies’ concerns but that may not be the case.

**Plan Sponsor Responses:**



The results of the Plan Sponsor survey were similar to the views of the DCIIA members. Yet again the lack of fiduciary safe harbor was the most commonly cited deterrent followed by plan-to-plan portability and complexity (i.e., difficulty explaining to participants). In addition the high cost of such products was highlighted by 60% of the plan sponsors—probably unsurprisingly given the strong focus on fees within the industry. In fact, even if a fiduciary safe harbor is put in place many believe that Plan Sponsors will have difficulty with introducing a higher-priced QDIA incorporating LTI (and we would not anticipate a safe harbor addressing the fee concern).

As stated before, we believe this is a Plan Sponsor group that is most likely more generally engaged with retirement issues, for two reasons:

- They participate with DCIIA;
- They responded to the survey.

Despite our belief that these are Plan Sponsors more engaged with retirement issues, 37% of the sample indicated “My company does not want to take the risk of having certain lifetime income products or services in the DC plan”. While this concern could be reduced with a fiduciary safe harbor, that may not be the case.

## **5. Benchmarking and measuring performance of options with LTI features**

This in our view is a real challenge further complicated by the unique structure of the products, especially guaranteed income products that are complex (e.g., variable annuities with guaranteed living withdrawal benefit features). This would be more easily facilitated if the products were more standardized.

## **6. Review of portability of LTI Options including plan-to-plan rollovers**

The degree of portability is a function of the complexity of the product. At one extreme, a stable value fund may be considered as an LTI option that is reasonably portable. At the other extreme, annuity products can be difficult, if not impossible, to move from one plan to another. This remains a concern of plan fiduciaries as evidenced by two-thirds of Plan Sponsors noting this as a deterrent in our survey. Some plan sponsors have indicated that a particular concern they have is that some of their participants, through no fault of their own, will end up forgoing a guarantee that they have been paying for.

## **7. Cost assessment of LTI Options**

Estimating the costs for non-guaranteed solutions is generally relatively straightforward (one can simply review the expense ratio). For a guaranteed solution it is somewhat more complex. For example, for any kind of annuity you can estimate the mortality-weighted net present value of the annuity, compare to the cost and determine the net value (also called the money's worth). This can be relatively straightforward for fixed annuities but somewhat more involved for variable annuities. Annuity exchange platforms or annuity quotation services are most likely a more effective way to compare fixed annuities for participants, as long as the contract terms are standardized. (Most participants will be very familiar with comparative quotation services in other industries, such as Expedia and Kayak for travel.)

While the cost assessment of LTI options is possible, the more complex and less standardized the products become (in particular incorporating guaranteed or variable products) the assessment becomes more challenging. This could make Plan Sponsors more dependent on expert advisers and result in participants having greater need of assistance.

## **8. Documentation of LTI designs with age-based income features**

It was a little less clear what this was specifically referencing. However, we have seen a variety of LTI designs that are age-based. For example:

- Simply building up a portfolio of Deferred Income Annuities (DIAs) in the accumulation phase;
- Creating a bridging portfolio between say 65 and 80 or 85 while funding a series of Qualified Longevity Annuity Contracts (QLACs) that would provide income beyond age 80 or 85;
- Creating a bridging portfolio between say 65 and 80 or 85 while funding a portfolio that could provide income beyond age 80 or 85 or facilitate the purchase of an annuity;
- Adding deferred annuities into a TDF glidepath partially or fully in place of fixed income during accumulation.

The key is that these designs can be possible with or without an annuity.

**9. Assessment of risk related to LTI products**

When evaluating LTI products, its important to be aware that there are two different perspectives: the retiree or participant perspective and that of the Plan Sponsor. These perspectives will frequently be different and may even be conflicting.

The table below sets out key factors to be considered by a retiree/participant when evaluating retirement income solutions. It highlights the balance between “return” (income, upside potential, etc.) and a variety of “risks.” It also highlights that retirees often have to decide on a trade-off between different risks and returns. Products struggle to address all these issues. When adding an LTI to a QDIA that trade-off will need to be evaluated by the Plan fiduciary. This assessment framework also raises the issue that most participants and retirees are probably not even aware of these risks, let alone understanding what they are and how to manage them.

Retiree/Participant perspective	
Initial income generation	
Protection from risk	Longevity risk
	Inflation risk
	Insurer credit risk
	Downside market risk
	Annuity conversion rate risk
	Terms and conditions risk
Participation in upside	
Access to capital (Wealth effect)	

The following similarly sets out key factors to be considered by a Plan fiduciary when evaluating retirement income solutions.

<b>Sponsor perspective</b>
Initial income generation
Transferability to another provider
In-plan or out of plan
Fiduciary/regulatory concerns
Insurer credit risk
Fees
Potential conflicts
Other

**10. Ideas to encourage participants’ use of LTI products**

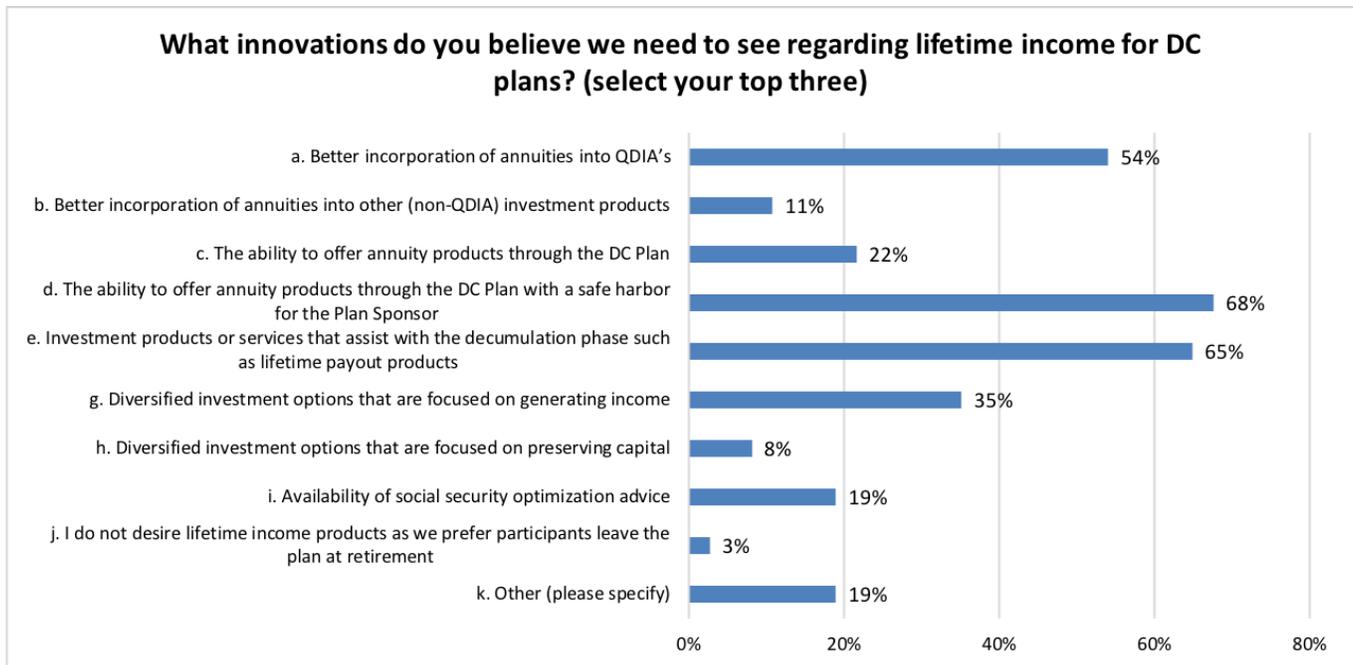
Some ideas to encourage use of LTI products include:

- In general, DC plans need to become more retiree friendly. For example, if one wants to encourage LTI products within the Plan then as a start Plan Sponsors need to be encouraged to allow partial withdrawals;
- The solutions offered need to work given participant preferences and their unique situations. We know that participants have very different circumstances, needs and wants. While a “one size fits all” solution may be reasonable for the Plan’s QDIA, for many participants this may not be the ideal fit;
- Reframing the retirement income discussion and moving the focus away from a purely asset/ wealth focus could help shift participants’ mindset when considering LTI products;
- Given that most participants will have retirement assets in a number of places (due to their different employers), consolidation of assets may be a key issue to facilitate a more manageable retirement. Currently it is far easier to consolidate outside of the Plan. If more Plan Sponsors encouraged participants to consolidate other balances into their DC Plan (and other providers made it easier for people to transfer/consolidate their balances) more participants are likely to consider staying in the Plan;
- Providing exchange or quotation services where participants can compare quotes/rates could help them feel more confident that they are getting a good deal.

A final question we addressed through the surveys related to innovation. While this was not one of the bullets highlighted in the Scope, the Scope did include a reference to:

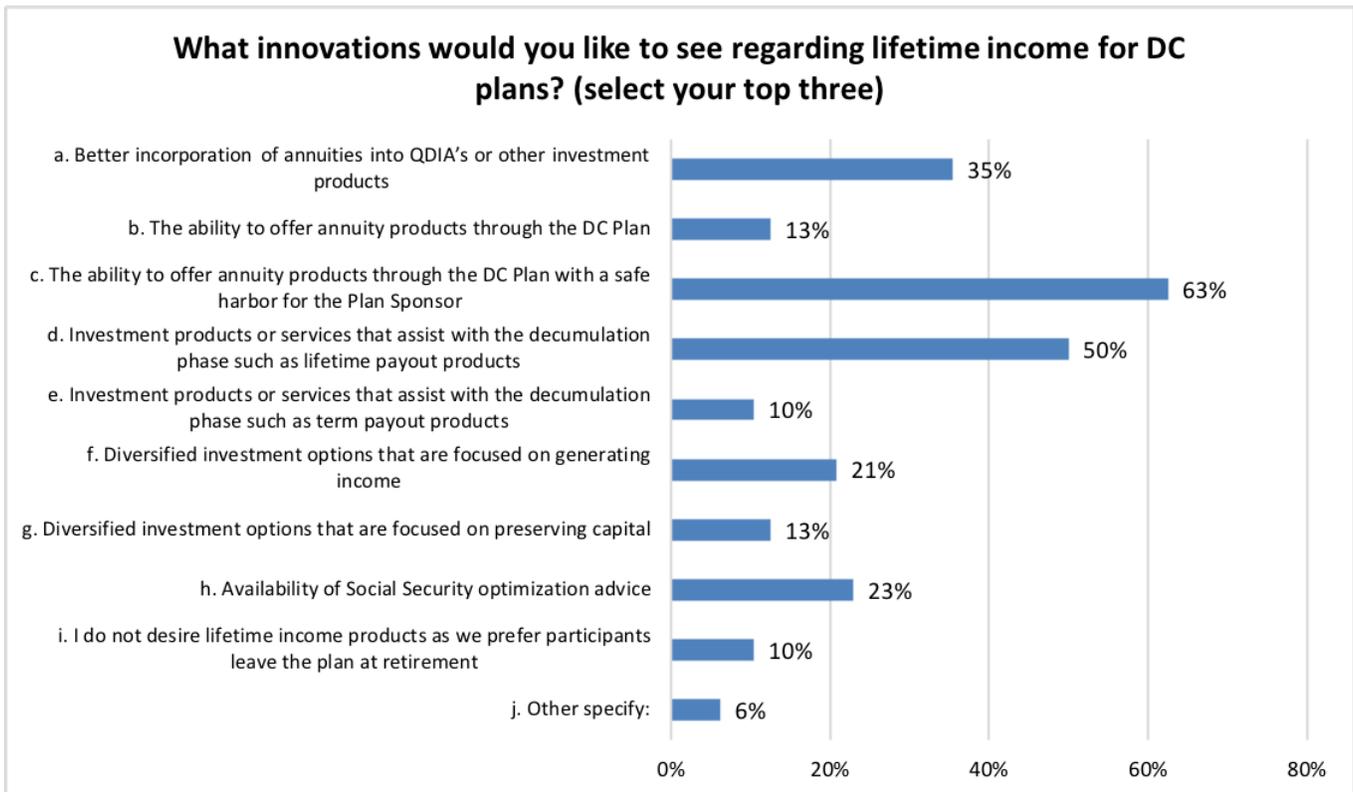
“recommendations on ..... new or innovative solutions and approaches to addressing lifetime income.”

**DCIIA Member Responses:**



In terms of innovations, safe harbor for annuity products again features, as does annuities into QDIAs but also other LTIs such as lifetime payout products and income-focused investment options.

**Plan Sponsor Responses:**



The Plan Sponsor responses were very much aligned with the DCIIA members, annuities again featuring strongly followed by lifetime payout products with a continued demand for a safe harbor for the Plan Sponsor.

### **Conclusion**

What is clear from this analysis is that the topic of including LTIs in QDIAs is a complex one. We trust that this analysis assists the Council with its deliberations.

We would also like to highlight that the DCIIA Retirement Income Committee is currently focused on developing a white paper addressing the “Retirement Tier”. This essentially is the suite of services, products and solutions that can be made available to assist those approaching retirement and within retirement. While this project is not focusing on the QDIA, it is more about providing options and support for those who would like a more tailored solution than the QDIA.

Finally, developing this testimony took the efforts of many. I want to thank the DCIIA members for their input, in particular David Blanchett of Morningstar, the plan sponsor community and the DCIIA team for their assistance with the two surveys and in formulating this response.

## **APPENDIX A**

### Summary of Two Surveys Conducted by DCIIA in May/June 2018

#### **DCIIA Member Survey Details:**

DCIIA has been asked to testify to the Advisory Council on Employee Welfare and Pension Benefit Plans on promoting lifetime income in defined contribution (DC) plans. In that testimony we would like to represent the status and views of our membership. To that end, we have attached a brief survey asking you to:

- identify any lifetime income products you currently offer (for inclusion in our response as an inventory of products,
- what you see as necessary innovations for lifetime income products
- assist with an inventory of research showing the likely prevalence of QDIAs at or near retirement,
- indicate what you believe are deterrents to the incorporation of LTI products in DC plans.

#### **DCIIA Member Survey responses:**

The survey was sent to members of our 160+ member organizations. An additional follow-up was sent specifically to the DCIIA Board Member representatives for each of our member organizations. We had a total of 45 responses to the survey.

#### **DCIIA Plan Sponsor Survey Details:**

DCIIA has been asked to testify to the Advisory Council on Employee Welfare and Pension Benefit Plans on promoting lifetime income in defined contribution (DC) plans. We feel it is important to have the voice of the plan sponsor included in our testimony and hope you are willing to help. We have drafted a very brief, 1-minute survey to gather your input.

#### **DCIIA Plan Sponsor Survey responses:**

The survey was sent to approximately 450 plan sponsor contacts representing 340 plan sponsor organizations. We received 48 responses to the survey from plan sponsors.

While we would have liked a greater response, we were satisfied with the response given the very short time frame.

## **APPENDIX B**

See attached: *Does Age Impact Usage of Default Investments in Defined Contribution Plans?*

by David Blanchett, Morningstar

Working Paper as of June 8, 2018

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## Exhibit B

# Does Age Impact Usage of Default Investments in Defined Contribution Plans?

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**Morningstar Investment Management LLC**  
Working Paper as of June 11, 2018

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### Introduction

Default investment options have grown increasingly popular in defined contribution (DC) plans. The usage of default investments has been noted to decline at older ages, but it is not clear to what extent age is driving this behavior. In this piece we explore this effect.

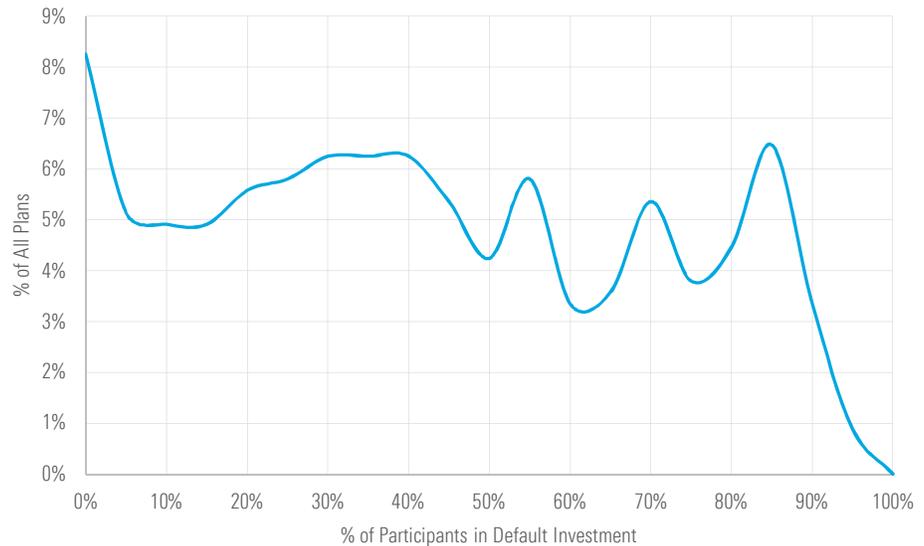
We find that while default usage does in fact decline with age, the vast majority of the effect is being driven by variables other than age. The reason older investors tend to have lower default usage is that the variables typically associated with older investors, such as longer plan tenures, higher savings rates, higher salaries, and higher balances are all negatively related to using the default. In other words, while older workers are using default investments less than younger workers, age is not really the primary attribute driving this behavior (rather, it's the other attributes associated with older investors). Therefore, default investments created for older participants should be calibrated to the types of participants more likely to use them—specifically, shorter plan tenures, lower savings rates, lower salaries, and lower balances.

### Data Set

Data for the analysis is obtained from a recordkeeper of U.S. DC plans. The initial data set consists of 538,439 participants across 448 401(k) plans. All participant data is as of December 31, 2017. For each participant, data is available on whether the participant was defaulted into his or her current portfolio. The default option varies by plan, and could potentially be a balanced fund, a target-date fund, or managed accounts.

There are significant differences in the percentage of participants invested in the default based on the available data set, as noted in Exhibit 1. The minimum, maximum, and median values across plans the 448 plans were 0%, 97.83%, and 42.01%, respectively.

**Exhibit 1** Distribution of Default Usage Over Time



Data as of 12/31/2017.

It would be difficult to understand differences in default usage for plans with virtually no default usage, so we excluded plans with less than 25% of plan participants invested in the default investment. This filter limits the dataset to 399,107 participants and 319 plans. Descriptive statistics for these plans are included in Exhibit 2.

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### Exhibit 2 Descriptive Statistics of Plans

	<b>Participants</b>	<b>Assets</b>	<b>Average Balance</b>
5th	24	\$5,262,367	\$40,672
25th	134	\$20,561,490	\$81,482
<b>Median</b>	390	\$46,220,890	\$126,490
75th	1,187	\$133,623,922	\$200,557
95th	4,437	\$560,608,810	\$456,437
<b>Average</b>	1,251	\$138,784,325	\$168,323

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Data as of 12/31/2017.

In addition to information about whether the participant is currently invested in the default, a number of other demographic variables are available for participants, such as age, date of participation in the DC plan (years of tenure will be used versus date of participation), deferral rate, salary, gender (note, this is not always available and sometimes coded as Unknown), and DC plan balance. Descriptive statistics for these variables are included in Exhibit 3.

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### Exhibit 3 Descriptive Statistics of Participants

	<b>Age</b>	<b>Tenure</b>	<b>Salary</b>	<b>Deferral</b>	<b>Balance</b>
5th	25.00	1.00	\$13,780	0.00	\$635
25th	34.00	2.00	\$37,225	0.00	\$9,262
<b>Median</b>	44.00	5.00	\$60,486	5.00	\$33,588
75th	54.00	11.00	\$97,510	9.00	\$110,687
95th	64.00	22.00	\$220,000	20.00	\$479,179
<b>Average</b>	44.30	7.73	\$84,916	6.77	\$110,928

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Data as of 12/31/2017.

### Analysis

The first analysis looks at how default investment usage varies by age. For this analysis participants are placed into five age groups: 25-34, 35-44, 45-54, 55-64, and 65-plus. For each age group in each plan, we determine the percentage of participants within that age group that are invested in the default. For the respective age group (for a given plan) to be included in the analysis there must be at least 30 participants. The distribution of default usage across the plans is included in Exhibit 4.

**Exhibit 4** Default Usage Distribution Across Age Groups

<b>Participants in Default Investment [%]</b>					
	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65+</b>
5th	38%	26%	19%	13%	9%
25th	54%	42%	31%	25%	20%
Median	70%	55%	48%	41%	37%
75th	85%	77%	73%	69%	72%
95th	94%	93%	90%	87%	87%

<b>Difference vs. Plan-Wide Default Usage [Percentage Points]</b>					
	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65+</b>
5th	-6%	-8%	-16%	-23%	-29%
25th	4%	-2%	-9%	-15%	-20%
Median	11%	2%	-3%	-8%	-11%
75th	21%	5%	0%	-4%	-3%
95th	36%	13%	7%	2%	10%

Data as of 12/31/2017.

From the data set studied, default usage is significantly lower among older participants (than among younger participants). For example, the median percentage of participants aged 55-64 in the default is 41% versus 70% for those 25-34. These values are 8% below and 11% above the respective plan averages, respectively.

What is not clear from Exhibit 4 is whether other attributes may be driving the lower default acceptance instead of age. For example, older workers tend to have longer job tenures<sup>1</sup> and, in some instances, the default could have been added after the participant enrolled in the plan, which explains lower default usage among older workers.

To determine the potential impact plan tenure has on default usage, a separate analysis is performed using the same general approach; however, only participants with tenures of three years or less are included. The results of this second analysis are included in Exhibit 5.

<sup>1</sup> <https://www.bls.gov/news.release/tenure.t01.htm>

**Exhibit 5** Default Usage Distribution Across Age Groups, Plan Tenure Less Than or Equal to Three Years

<b>Participants in Default Investment [%]</b>					
	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65+</b>
5th	38%	36%	33%	31%	29%
25th	58%	55%	51%	48%	58%
Median	71%	69%	67%	68%	67%
75th	86%	83%	83%	81%	86%
95th	96%	96%	92%	93%	92%

<b>Difference vs. Plan-Wide Default Usage [Percentage Points]</b>					
	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65+</b>
5th	-12%	-13%	-17%	-21%	-27%
25th	2%	-1%	-2%	-5%	-2%
Median	13%	9%	8%	5%	4%
75th	26%	22%	21%	19%	22%
95th	44%	41%	37%	35%	27%

Data as of 12/31/2017.

Default usage is significantly more consistent for workers with shorter tenure (Exhibit 5) than for all participants (Exhibit 4). For example, 71% of participants aged 25-34 are using the default versus 68% for those aged 55-64. These findings suggest other variables apart from age are likely driving the differences in default usage noted in Exhibit 4.

To better understand the variables that potentially impact default usage, a logistic regression is performed. The dependent variable for the logistic regression is a binary variable set to 1 if the participant is invested in the default, otherwise it's zero. The independent variables include gender (which are dummy variables<sup>2</sup>), age, tenure, deferral rate, salary (technically the natural log of salary), and balance (technically the natural log of balance). The results are included in Exhibit 6.

<sup>2</sup> Since there are potential three potential states, male, female, and unknown; male and female are both treated as dummy variables where the omitted variable is if the gender is unknown

**Exhibit 6** Logistic Regression Results

<b>Coefficient</b>	<b>Value</b>	<b>SE</b>	<b>Pr &gt; Chi<sup>2</sup></b>	<b>Odds Ratio</b>
<b>Intercept</b>	6.148	0.050	< 0.0001	
<b>Male?</b>	0.288	0.009	< 0.0001	1.333
<b>Female?</b>	0.351	0.009	< 0.0001	1.420
<b>Age</b>	-0.002	0.000	< 0.0001	0.998
<b>Tenure</b>	-0.049	0.001	< 0.0001	0.952
<b>Deferral%</b>	-0.028	0.000	< 0.0001	0.972
<b>ln(Salary)</b>	-0.302	0.005	< 0.0001	0.740
<b>ln(Balance)</b>	-0.202	0.003	< 0.0001	0.817

Data as of 12/31/2017.

The coefficient for the age variable is negative, which implies that default usage does decline at older ages. However, age is the variable with an odds ratio closest to one (0.998), and the fact that the odds ratio is so close to 1 suggests it is relatively unimportant in default usage. In contrast, variables such as salary and balance seem to have significantly greater relations (given the odds ratios are much less than one). The fact that both male and female variables are positive odds ratios is interesting and potentially a function of the plans that report gender.

What is clear from Exhibit 6 is that default usage declines for longer tenures, higher savings rates, higher salaries, and higher balances. Older participants are more likely to have all four of these attributes. Therefore, these findings suggest while older DC participants are less likely to be invested in the default, it's not so much a function of their age but other characteristics that are typically associated with older workers.

**Conclusions**

This analysis strongly suggests that while default usage does decline among older participants, the reason for the decline is primarily a function of the characteristics of older workers in DC plans, not simply because the investor is older. For example, we found in our logistic regression that default usage declines for longer tenures, higher savings rates, higher salaries, and higher balances, and these are all attributes that are more likely to be consistent with older workers. These findings have important implications for creating default investments for older participants, since defaults are primarily based on age today. ■■■

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