Review of Investment Advisory Services for the Thrift Savings Plan (TSP)

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Investment advice and consulting services provided by Aon Hewitt Investment Consulting, Inc., an Aon Company.

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Executive Summary

The Federal Retirement Thrift Investment Board ("FRTIB") retained Aon Hewitt Investment Consulting to conduct a comprehensive review of investment advisory services, identify key risks and potential rewards associated with offering investment advisory services, and assess whether such services should be considered as an offering within the Thrift Savings Plan ("TSP").

This report reviews the prevalence and utilization of investment advisory services, provides an overview of the fiduciary considerations associated with offering such services, outlines the benefits and risks, and details the operational complexities, costs, and challenges typically encountered with the selection and implementation of investment advice.

Aon Hewitt Investment Consulting believes that offering "help" tools such as target date funds and investment advice beneficially impacts retirement readiness. This paper will support why we view investment advisory services as a key component in a defined contribution plan's suite of "help" tools. This paper will focus on the two main forms of investment advisory services - non-discretionary ("advice") and discretionary ("managed accounts"). Non-discretionary investment advice is a *personalized* investment recommendation (asset allocation and/or specific investment fund selection) based on the specific participant circumstances, whereas discretionary advice in the form of managed accounts includes not just the advice, but implementation as well.

We believe the FRTIB should consider incorporating an investment advisory solution that includes managed accounts as an offering to the participants in the TSP. The data, as detailed in this report, demonstrates that investment advice can be beneficial to defined contribution participants by improving their savings rates and asset allocation, and therefore, retirement readiness. Based on TSP demographics such as average age (46) and average account balance ($109k)[1], we would expect that TSP would see average adoption rates of investment advisory services that are in line with utilization rates across the industry for participants age 45 and older with larger account balances. This group is also generally a heavier user of investment advisory services. However, we note that the challenges associated with providing investment advice could be more profound for the TSP as compared to other defined contribution plans, given the significantly higher number of participants in the plan compared to the average plan. As described later in this report, the potential challenges of providing investment advice include additional administrative complexities associated with set-up and the increased fiduciary effort required to select and monitor a provider. The scope of this report did not include a review of investment advice providers' ability to support the capacity that would be presented by the TSP and we recognize that size could be a barrier to entry for the TSP. However, there are compelling reasons to provide investment advice, and, therefore, we encourage the TSP to evaluate the administrative burden and the ability of providers in the marketplace to meet its needs in order to determine whether the cons actually outweigh the pros.

[1] TSP 2013 Annual Report. June 2014

Key Highlights

Below we provide an overview of the key conclusions from this report.

Increased Prevalence of Investment Advisory Services

- Nearly half (45%) of defined contribution plans today offer at least one form of outside investment advisory tools such as online advice and managed accounts[2]. 68% of these plan sponsors offer both online advice and managed account, while 7% offer online advice only[2]. Specifically, among the 407 plan sponsors surveyed in 2013, approximately 46% offer online advice, while managed accounts are offered by 52% of the plans[2].
- Managed accounts have seen the largest increase in adoption with only 6% of plan sponsors offering managed accounts in 2005, increasing to 29% by 2011 and reaching 52% in 2013[2].
- The prevalence for managed accounts and online advice grows the larger the plan, as measured by number of participants. For plans with more than 25,000 participants, 51% adopted at least one form of advice; specifically, 57% offered online advice and 54% offered managed accounts[2]. 80% of these large plans offer both online advice and managed accounts as compared to 52% of plans with less than 1,000 participants offering both[2].

Utilization of Investment Advisory Services Remains Relatively Low

- Despite an increase in plans offering advice, overall utilization by participants remains low. Among larger corporate defined contribution plans (greater than 25,000 participants) the average utilization rate of managed accounts is 13% and that of online advice is around 9%[2].
- Age and average account balances generally are the two key factors impacting the usage of either form of investment advice[3]. The average age of online advice user is 45 years, while the average age of managed account user is 48 years. When utilized, managed accounts have the highest usage (approximately 60%) among participants with account balances between $50,000 and $250,000. Online advice is most widely used (around 48%) by participants with account balances above $250,000.
- While an increasing number of plan sponsors have allowed employees' access to managed accounts, very few (4.6%[4]) have made the decision to offer managed accounts on an opt-out basis.

[2] 2013 Aon Hewitt Trends and Experience in Defined Contribution Plans. The statistics on online advice/managed accounts prevelance reflect adoption of more than one type of investment advisory services.
[3] Aon Hewitt/Financial Engines *Help in Defined Contribution Plans: 2006 through 2012*. 2014
[4] PSCA 56th Annual Survey of Profit Sharing and 401(k) Plans. The survey shows that 6.6% of large DC plans (with 5,000+ participants) used professionally managed accounts as the default investment option.

Effectiveness of Investment Advisory Services

- When plan sponsors of large companies (i.e. employers with more than 25,000 employees) were asked if investment advice was effective when offered, majority of the respondents noted that both managed accounts and online advice had proven effective.
  - 60% noted that managed accounts are very effective and 37% found managed accounts to be somewhat effective[2].
  - Online advice was found to be very effective by 39% of the respondents and about 61% noted that it is somewhat effective[2].

Benefits of Investment Advisory Services

- **Increased savings rates.** Investment advisory services help participants understand the impact the deferral rate/savings rate can have on their final retirement goals. Target-date fund participants had the lowest average deferral rates (4.4%), even lower than the 6.6% average rate for “non-help” participants, while those utilizing managed accounts deferred 7.5% on average, and the deferral rate for those using online advice was on average 9.0%[5].
- **Better investment results**. Investment advisory services can assist participants with the improvement in the efficiency of their individual investment allocations.
  - The annual median returns, net of fees, for “help” participants was 3.32 percentage points higher, on average, than “non-help” participants during a five year period between 2006 and 2012[5].
  - Partial use of target date funds can yield less efficient portfolios at inappropriate risk levels with a meaningful impact on investment outcomes (median annual returns during the period of 2010 to 2012, net of fees, were 244[5] basis points lower for partial target date fund users than for the “help” participants).
  - Targeting efficient risk/return levels is an area where personalized investment advice may be advantageous, especially when taking into account the impact of outside plan assets, including other retirement and non-retirement assets, spousal assets, social security benefits, etc.
- **Retirement planning**. Investment advice services help participants determine the most appropriate income distribution strategies.

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[5] Aon Hewitt/ Financial Engines *Help in Defined Contribution Plans: 2006 through 2012.* 2014

[6] 2013 Aon Hewitt Trends & Experience in Defined Contribution Plans notes the top three concerns with offering outside investment advisory services – 61% reported that the primary barrier for not offering investment advice services is due to legal/fiduciary concerns, followed by cost issues at 18%.

Considerations of Implementing Advisory Services

- **Increased Fiduciary Effort.** A plan sponsor has the responsibility for the oversight, selection and monitoring of the investment advice service provider, which is the most cited concern for offering investment advisory services[6].
- **Cost.** Costs are the second most cited reason for plan sponsors to be skeptical about the adoption of either form of investment advisory services[6]. Costs for online advice are typically part of the recordkeeping services, the fees of which are most often divided up among participants and charged as a per participant fee. Managed accounts fees are typically asset-based fees, and in addition to the fees of the plan's underlying investment options, typically paid by the plan participant who elects to use the service.
- **Potential for Low Utilization**. Typical utilization of either form of investment advice is around 10%.
- **Operational Complexities and Challenges.** The implementation effort places the burden of heavy lifting on the record-keeper and the investment advice provider, assuming the third-party record-keeper and advice provider develop participant communications materials, and manage or coordinate systems changes, such as those required for transactions, account updates, participant and plan sponsor websites, and reporting programs.

Background

Defined contribution plans have become the primary retirement benefit vehicle for a majority of employees today and the focus on improving outcomes has never been greater. Aon Hewitt Investment Consulting believes that plan sponsors should focus on retirement income adequacy as the key measure of retirement benefit success[7]. The reality today is that the average participant is not prepared to meet his or her retirement needs – for the average participant to accumulate approximately 85% of his or her pre-retirement income by age 65, he or she should aim to accumulate approximately 11.4 times pay from both personal savings and employer provided retirement benefits[8]. The expected retirement income deficit is projected to be 3.6 times pay at age 65[8]. We believe that one way for plan sponsors to help close that gap is to offer investment advisory solutions and allow participants with access to the appropriate financial tools and resources. When appropriately positioned, investment advisory services may have a positive impact on improving saving rates, correcting for poor investment decisions, and potentially assist with establishing a plan for distribution strategies during retirement.

This report focuses on investment advisory services as opposed to investment education services often referred to as “guidance”. Guidance is more akin to investment education rather than investment advice. For example, guidance today is generally offered through internet-based tools that offer broad education on asset allocation strategies, but does not provide specific participant recommendations. Investment advisory services, on the other hand, offer personal recommendations based on the individual circumstances. Investment advice providers are governed by the Investment Advisors Act of 1940. Among other things this Act requires providers have an understanding of a participant’s investment objectives and risk tolerance before advice can be given. Investment advisory services are typically offered by third-party internet-based providers, registered investment advisors, and certified financial planners. Investment advice may be delivered via the web, phone, or in-person.

There are two main forms of investment advisory services - non-discretionary (“advice”) and discretionary (“managed accounts”).

Non-discretionary investment advice is a *personalized* investment recommendation (asset allocation and/or specific investment fund selection) based on the specific participant circumstances. Importantly, the participant retains the sole discretion for execution and implementation of provided advice. The most common forms of non-discretionary advice include “online advice” and “one-on-one financial counseling.” In this report, we focus on “online advice” as the non-discretionary form of investment advisory services offered by an independent third-party investment provider.

Discretionary investment advice (also referred to as a “managed accounts”) is defined as a discretionary portfolio management service that makes and implements the investment decisions. In managed accounts, an investment advisor acts on behalf of the participant in executing the investment decisions based on the participant’s specific needs and risk tolerance.

[7] Hewitt EnnisKnupp “Improving DC Plan Investment Governance: Call to Action,” 2013
[8] Aon Hewitt’s “The Real Deal – 2012 Retirement Income Adequacy at Large Companies.”

According to Cerulli Associates[9], the top three largest managed accounts providers include Financial Engines, Morningstar, and GuidedChoice. These are also some of the most prominent online advice providers.

[9] The Cerulli Report – Retirement Markets 2013.

Prevalence and Usage of Investment Advisory Services

Summary of Key Trends:

- Increased prevalence of investment advisory services (online advice/managed accounts)
- Overall utilization of investment advisory services by participants, however, remains relatively low

Increased Prevalence in Investment Advisory Services

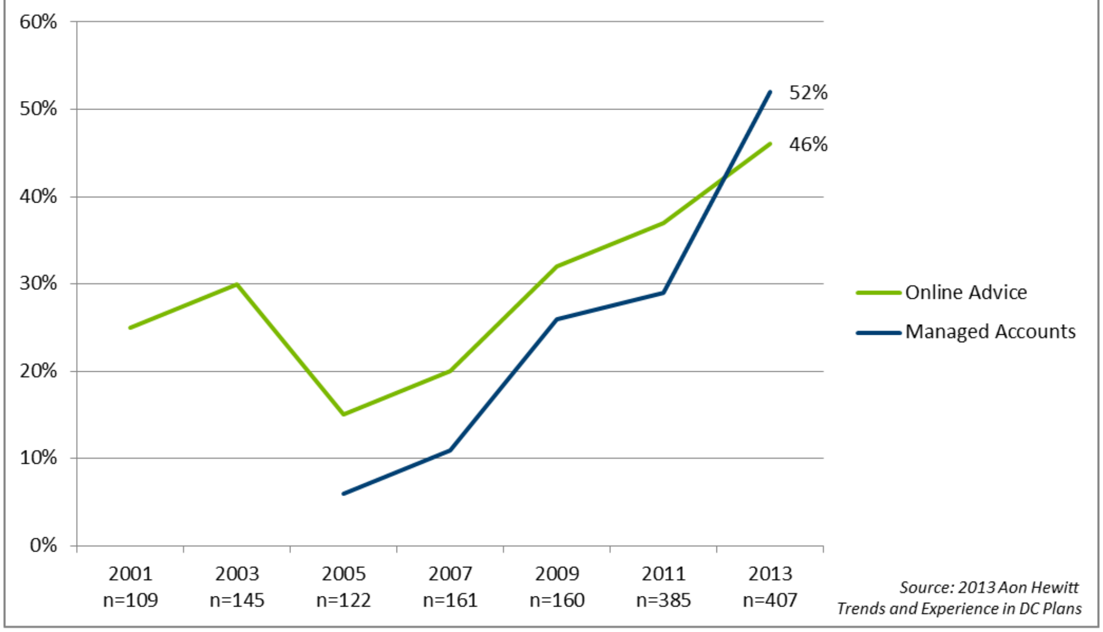
Over the past few years, we have continued to observe an increased effort by plan sponsors to offer investment education and outside investment help tools to assist employees with overall preparedness through and into retirement. In reviewing various widely-used defined contribution surveys on prevalence of investment advisory services, results show that the adoption of investment advisory services has increased significantly over the past five years.

The 2013 Aon Hewitt Trends and Experience Survey[10] shows that 45% of defined contribution plans today offer at least one form of outside investment advisory tools. Among these plan sponsors that offer investment advisory services, 68% offer both online and managed accounts, while 7% offer online advice only and 25% managed accounts only. As shown on Figure 1, among the 407 plan sponsors surveyed in 2013, approximately 46% offer online advice, while managed accounts are offered by more than half of the plans (52%)[11]. Managed accounts have seen the largest increase in adoption. As shown on Figure 1, in 2005 only 6% of plan sponsors surveyed offered managed accounts largely driven by the relative newness of the offering, but in 2011 it was offered by 29% of plans and in 2013 by 52% of plans.

[10] 2013 Aon Hewitt Trends & Experience in Defined Contribution Plans is a biannual survey completed by more than 400 employers sponsoring defined contribution plans (including 401(k), 403(b), 401(a), 457(b)) for more than 10 million employees and nearly $500 billion in assets. The average number of employees was 25,400 and average plan size $2.2 billion.

[11] The statistics reflect adoption of more than one type of investment advisory services.

Figure 1. Historical Prevalence of Investment Advisory Services

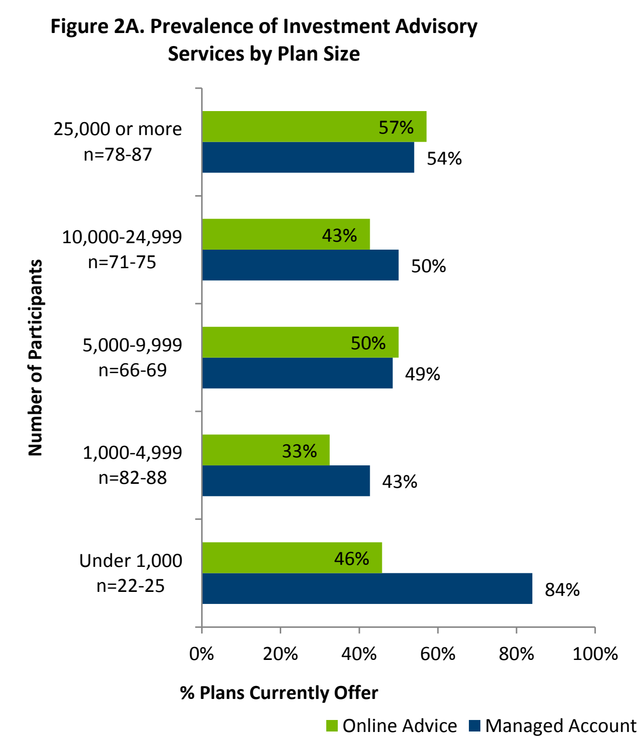


Prevalence by Plan Size

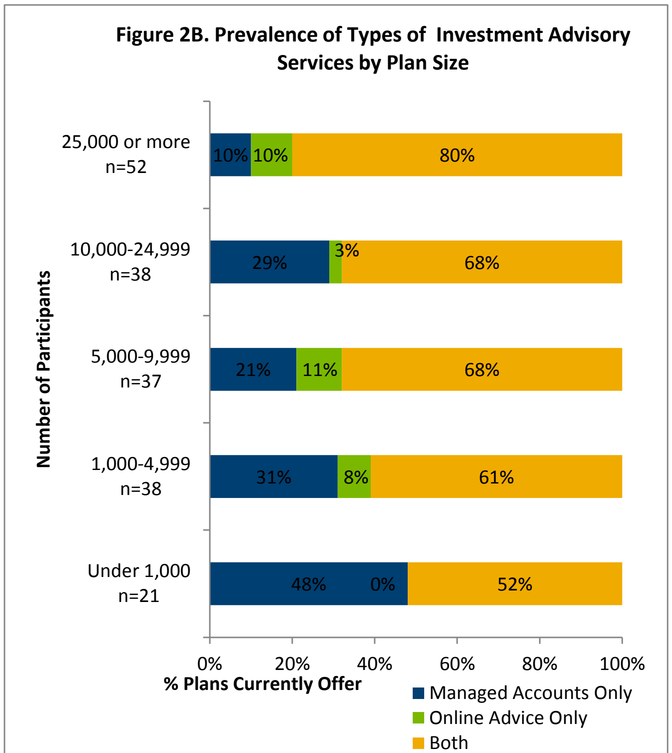
In the mega plan market (25,000 or more participants) 51% of plan sponsors offer at least one form of investment advisory services, with online advice and managed accounts being nearly equally as prevalent (57% versus 54%, respectively)[12]. Interestingly, as shown in Figure 2A, managed accounts prevalence in mega plans, as defined by participant count, is slightly lower than online advice. Figure 2B highlights that among these large plan sponsors that offer any of the investment advisory services, about 80% offer both managed accounts and online advice, with only 10% adopting only online advice or managed accounts as a sole offering. Based on our own experience and knowledge, we know that both online advice and managed accounts are actively being considered by many large plan sponsors and we believe the FRTIB's interest in this subject is well timed and worth pursuing further.

Further, when considering prevalence by plan asset size, the results are similar – 52% of plan sponsors offer at least one form of these services. For instance, for plans with $1 billion in assets, online advice was offered by 50% of plan sponsors, while managed accounts are adopted by 45% of plan sponsors, with majority offering both online advice and managed accounts services.[13]

[12] The statistics reflect adoption of more than one type of investment advisory services.
[13] Aon Hewitt 2013 Trends & Experience in DC Plans survey – results by plan asset size of over $1 billion.



Source: 2013 Aon Hewitt Trends and Experience in DC Plans



Source: 2013 Aon Hewitt Trends and Experience in DC Plans

The increasing prevalence of online advice among large plans is supported by other defined contribution surveys. Vanguard[14] defined contribution plan data shows that across large plans (with over 5,000 participants), 66% of plans offer online advice and 48% of plans offer managed accounts (see figure 3).

Figure 3. Prevalence of Investment Advisory Services

	Vanguard	
Number of Participants	Online Advice	Managed Account
All	35%	19%
< 1,000	25%	9%
1,000-4,999	62%	43%
5,000 +	66%	48%

Source: Vanguard: How America Saves 2014

Prevalence by Plan Type

Aon Hewitt Investment Consulting works with more than 315 defined contribution plans, with assets ranging from $2 million to $16 billion (the TSP is excluded from these figures). An Aon Hewitt Investment Consulting internal survey reveals that the majority of the largest corporations sponsoring defined contribution plans (with assets ranging from $2 billion to $16 billion) offer investment advisory services. Further, a large portion of these plan sponsors are currently considering or in the process of implementing online advice/managed accounts.

We also compiled information from public sources on the ten largest public (quasi-public) sector defined contribution plans as shown on Figure 4. In this case, we found that all of these plans offer various education/guidance tools and services[15], but none had adopted online advice or managed accounts.

Figure 4. Prevalence of Investment Advisory Services
Top Ten Public Sector (Quasi Public Sector) Savings Plans

	Plan Assets (in $ billion)*	Investment Advisory Services Offered?**	
		Online Advice	Managed Accounts
New York State Deffered Compensation	$16	No	No
University of California Retirement Systems	15	No	No
New York City Deffered Comp	14	No	No
Ohio Public Employees Deferred Comp	10	No	No
California State Savings Plan	9	No	No
County of Los Angeles	9	No	No
State Board of Administration Florida	9	No	No
North Carolina Retirement Systems	7	No	No
Washington State Employees Deferred Comp	4	No	No
Indiana Public Retirement System	3	No	No

**Sourced from Money Market Directories; Pension & Investments **Sourced from official public plan website*

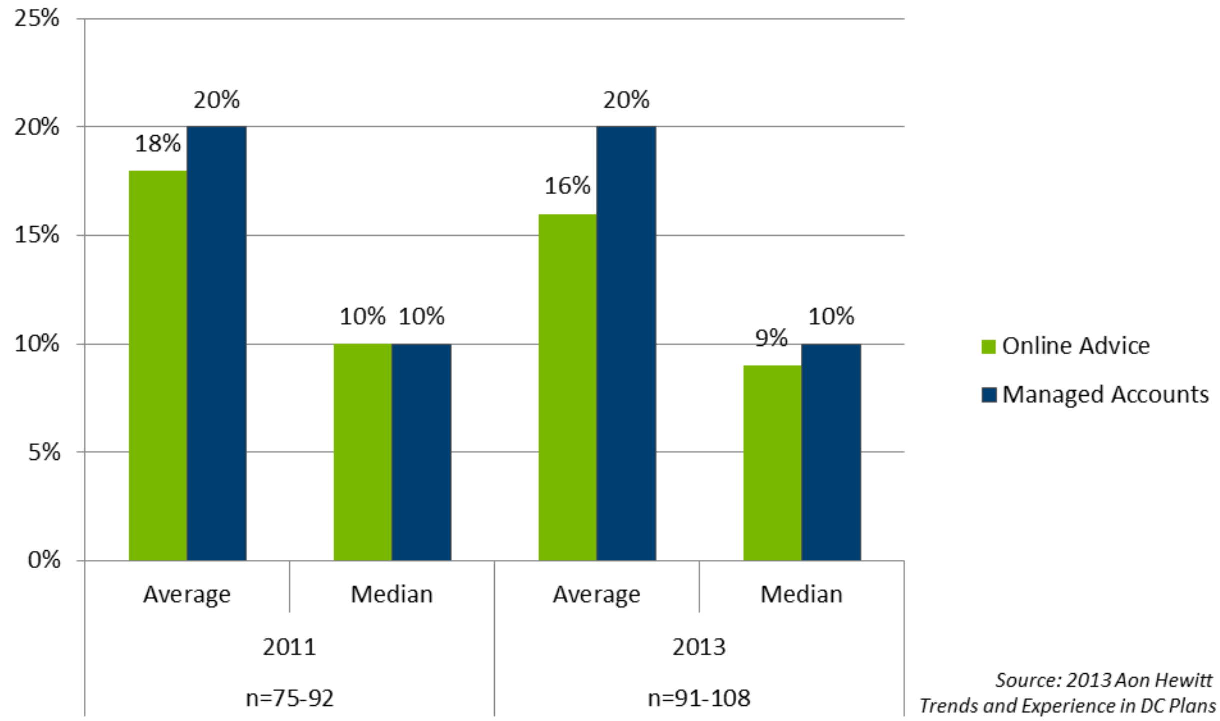
[14] Vanguard: How America Saves 2014. A report on Vanguard 2013 defined contribution plan data
[15] In our review of retirement information and retirement calculators offered on the official public websites of these plans, we were not able to find information to support any of these services/tools are offered by an independent investment advice provider in the form of online advice and/or managed accounts.

Among organizations that offer 403(b) plans with advisory services, an Aon Hewitt Investment Consulting internal survey shows that the majority offer online advice. Managed accounts are less prevalent among these plans largely due to the operational complexities associated with the administering retirement plans in a multi-vendor (record-keeper) environment. Specifically, the challenges for 403(b) plans using multiple vendors is that the additional vendors' data is not likely to be included in the determinations of the participant's allocation models, making managed accounts of limited value.

Low Utilization of Investment Advisory Solutions

Despite considerable efforts by plan sponsors across the public and private sectors to offer participants access to online advice/managed accounts, participant utilization remains relatively low. This highlights one of the main challenges plan sponsors face when evaluating the value of these services - in order for either form of investment advice to work, participants actually have to use it. As figure 5 shows, the average utilization rate of online advice/managed account ranges around 20%. Median usage of either form of investment advice is around 10%. These numbers have remained relatively consistent over the past few years.

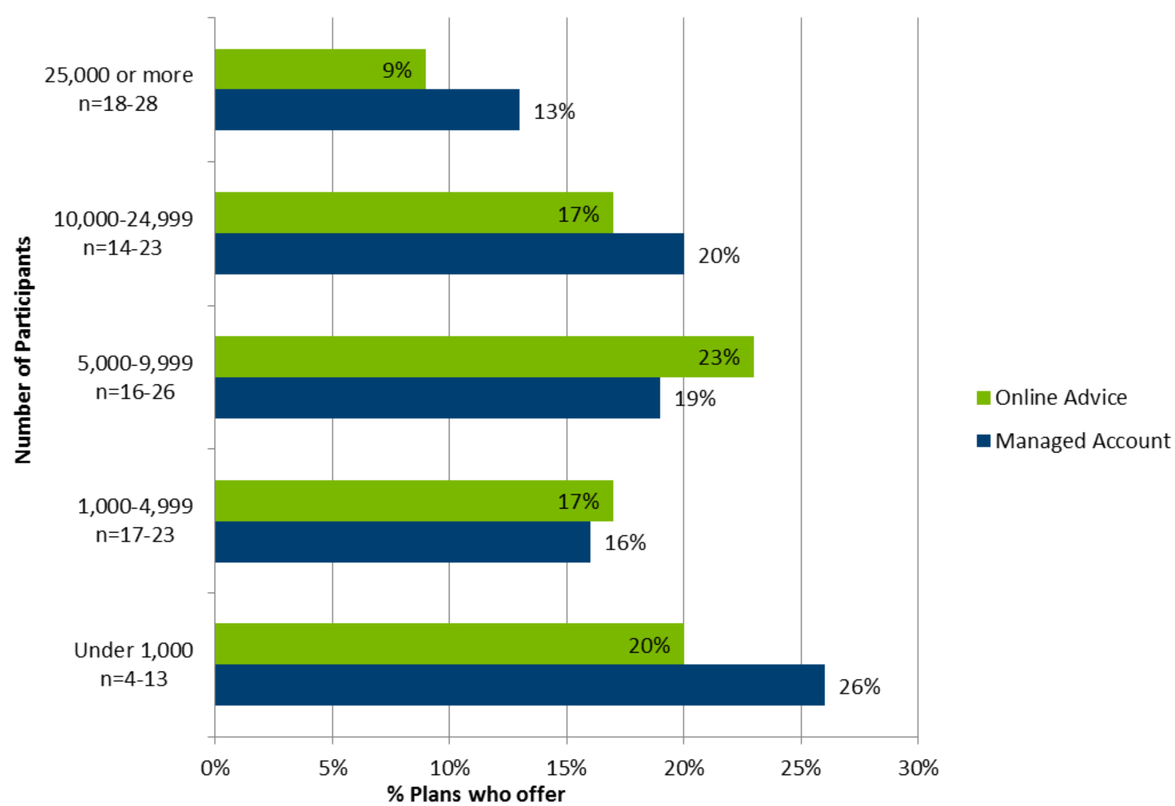
Figure 5. Utilization of Investment Advisory Services 2011 and 2013



Source: 2013 Aon Hewitt Trends and Experience in DC Plans

Figure 6 illustrates that among larger corporate defined contribution plans (greater than 25,000 participants) the average utilization rate of managed accounts is 13% and of online advice is 9%. Average usage of managed accounts among smaller companies with an employee base of less than 25,000 appears to be higher, closer to 20%.

Figure 6. Average Utilization of Investment Advisory Services



Source: 2013 Aon Hewitt Trends and Experience in DC Plans

Similar utilization rates are reported in the Vanguard survey[16]. Specifically, 16% of participants who were offered advisory programs defined as online advice, managed accounts and financial planning, have used one of them. Among larger plans (with 5,000+ participants), about 7% of participants who were offered online advice/managed accounts were accessing it. In smaller plans (less than 1,000 participants) utilization of online advice was marginally higher, at 10%.

[16] Vanguard How America Saves 2014

Utilization by Enrollment Method

Enrollment method is only applicable for managed accounts. Managed accounts are offered on an opt-in basis (i.e., on a voluntary basis) or on an opt-out basis (i.e., passive enrollment where new hires are enrolled into managed accounts as the qualified default investment alternative (QDIA) vehicle). Usage of managed accounts is higher in plans that have adopted a passive enrollment. Among 14 large corporate defined contribution plans (723,000 participants and combined plan assets of over $55 billion) surveyed in the Aon Hewitt/Financial Engines report *Help in Defined Contribution Plans: 2006 through 2012,* only one large defined contribution plan has adopted managed accounts as the QDIA, and, as a result, the usage of managed accounts was nearly 50%. While an increasing number of plan sponsors have allowed employees access to managed accounts, very few have made the decision to offer managed accounts on an opt-out basis. Target date retirement funds remain the most common QDIA. A PSCA[17] survey reports that only 4.6% of DC plans used professionally managed accounts as a default investment option for automatic deferrals. The selection of the enrollment method can drive utilization of managed accounts. Specifically, the opt-out enrollment method results in increased utilization of managed accounts, but as we discuss in the next section, the rationale for selecting this method of application varies and is largely based on plan sponsor assessment of specific goals and circumstances.

Utilization by Plan Demographics

Age and average account balances generally are the two key factors impacting the usage of either form of investment advice[18]. According to the Aon Hewitt/Financial Engines study, the average age of online advice user is 45 years (a slight increase from 41 years in the prior year study), while the average age of managed accounts user is 48 years[18]. Figure 7 summarizes the findings of the study with regards to utilization by age. Specifically, participants over age 55, including near-retirees, are most likely to use managed accounts. Online advice is utilized by the majority of the age groups, with the highest usage by participants in the age group 45-55. Target date funds usage remains high among younger participants. This is likely as a result of the use of target date funds as a plan's QDIA (qualified default investment alternative).

[17] PSCA *56th Annual Survey of Profit Sharing and 401(k) Plans. The survey shows that 6.6% of large DC plans (with 5,000+ participants) used professionally managed accounts as the default investment option.*

[18] Aon Hewitt/ Financial Engines *Help in Defined Contribution Plans: 2006 through 2012.* 2014

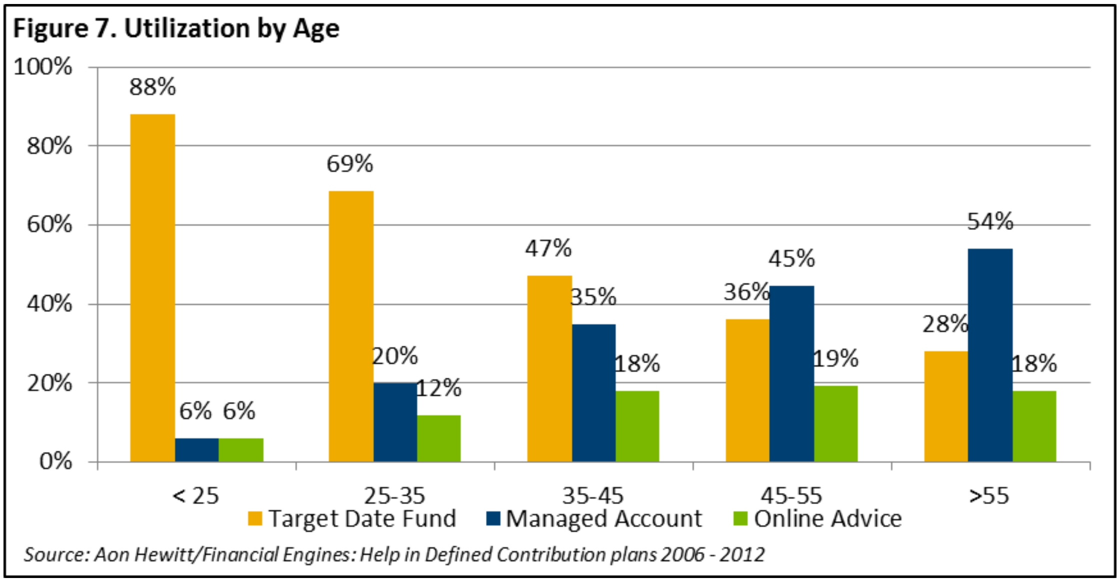
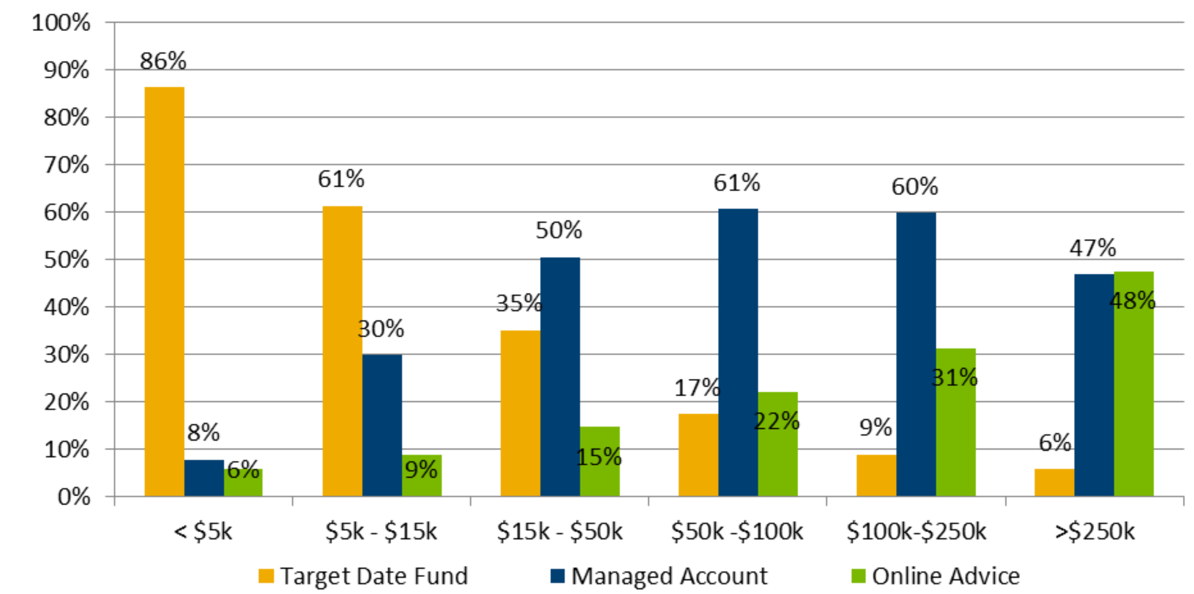


Figure 7. Utilization by Age
100%
80%
60%
40%
20%
0%
88%
6% 6%
69%
20%
12%
47%
35%
18%
36%
45%
19%
28%
54%
18%
< 25
25-35
35-45
45-55
>55
Target Date Fund
Managed Account
Online Advice
Source: Aon Hewitt/Financial Engines: Help in Defined Contribution plans 2006 - 2012

Utilization based on Account Balances

In looking at utilization by account balance, the study reveals that managed accounts have the highest usage among participants with account balances between $50,000 and $250,000. Online advice is mostly used by participants with large (over $250,000) account balances. Target date funds are mostly utilized by participants with account balances less than $15,000. Figure 8 illustrates the utilization rates across average account balances. As account balances grow, so does the usage of managed accounts and online advice.

Figure 8. Utilization by Account Balance



Source: Aon Hewitt/Financial Engines: Help in Defined Contribution plans 2006 - 2012

Life stage and account size typically are the main predictors of the type of "help" utilized[19]. In particular,

- Younger participants with lower balances are more likely to use target-date funds.
- Younger participants with higher account balances are more inclined to use online advice.
- Older participants with higher balances and more complex financial situations are more likely to use managed accounts and look for more tailored approach towards retirement preparedness.

[19] Aon Hewitt/Financial Engines *Help in Defined Contribution Plans: 2006 through 2012.* 2014

Aon Hewitt Investment Consulting believes that investment advisory services are another form of "help" and could be viewed as a complement to the "help" offering of lifecycle/target date investment options. The review suggests that investment advisory services appeal to participants with a more complex financial situation. Online advice would be appealing to participants who have higher level of interest and involvement with their retirement goals and who are looking to manage their own investments. Managed accounts, on the other hand, would appeal to participants with potentially more complex financial situation and looking for professional investment management option requiring low level of involvement. Given the different appeal each type of "help" service brings, not offering all types of "help" services may result in not appropriately addressing the needs of a good portion of the participant base.

Case Studies — Feedback from Plan Sponsors

In this section we attempt to measure the effectiveness of investment advisory services, whether it is a valued plan feature by those that have offered it, and summarize the main reasons noted by those plan sponsors looking to offer it.

In the *2013 Trends & Experience in Defined Contribution Plans* report, when plan sponsors of large companies (i.e., employers with more than 25,000 employees) were asked if investment advice was effective when offered, majority of the respondents noted that both managed accounts and online advice had proven effective. Specifically, 60% noted that managed accounts are very effective and 37% found managed accounts to be somewhat effective. Online advice, on the other hand, is found to be very effective by 39% of the respondents and about 61% noted that it is somewhat effective.

In order to gather direct feedback from plan sponsors on the effectiveness of advice and assess whether investment advice is “well received”, we held interviews with two large plan sponsors who have offered investment advisory services for several years. In our research we did not explicitly analyze if there is any correlation between a plan’s core fund line up and usage of investment advisory services. As noted in the prior section, the use of online advice/managed accounts depends more on participant demographics such as age, life stage, complexity in personal financial situation, personality, knowledge and engagement. In addition, we note that plan design such as automatic enrollment/re-enrollment and designated qualified investment default alternative are strong drivers of usage of managed accounts[20].

[20] Aon Hewitt/Financial Engines *Help in Defined Contribution Plans: 2006 through 2012.* 2014

Case Study # 1

A large corporate plan sponsor adopted investment advisory solutions as a result of changes in the company's retirement benefit package. The company decided to freeze the defined benefit pension plan for a majority of its employees. It then introduced a new 401(k) and profit sharing plan, which became an important retirement benefit for all employees. As such, the new plan features, including the addition of online advice/managed accounts, were designed with company's objective to offer a benefit that satisfies the needs of its entire diverse employee base. The investment plan structure design offered both options and features that would appeal to participants that are not interested in investing themselves and those that are actively engaged with retirement readiness, but may seek help. The investment core lineup included options such as targeted date funds, passive funds, employer stock, and a self-directed brokerage window. The plan design included auto-enrollment for new hires and managed accounts were selected as the new default investment alternative, which is the main reason for the higher than average utilization of managed accounts. We note that using managed accounts as a QDIA is not common or recommended by Aon Hewitt Investment Consulting.

It was noted that online advice is a beneficial tool for those who chose to use it, as it offers help with the appropriate level of saving and investing (especially when considering outside assets) towards retirement. Professional account management, on the other hand, "fills the niche" for those who need help with the management of their money. The roll out of investment advice was supported by a strong communication campaign emphasizing the richness of the benefit. The sponsor did not indicate any specific operational challenges with offering advice. The overall plan sponsor satisfaction with the offering of online advice/managed accounts is high.

Plan Assets	$3.5 billion
Number of Participants	Over 20,000
Other Employer Sponsored Plans	Defined benefit plan (frozen)
Offered Online Advice/Managed Accounts	Both, since 2010
Current Utilization of Managed Accounts:	Approximately 50%
Enrollment Method:	Opt Out
QDIA	Managed Accounts
Offer Target Date Funds in Investment Line up	Yes
Allocation to Target Date Funds	~13%

Case Study # 2

This plan sponsor has offered investment advice since 2007 when it consolidated several of its retirement plans. The investment advice feature was added to the plan given that the sponsor believed that it is best practice and is another option that can enrich the overall perception of the retirement plan. The enrollment method was on an opt-in basis. The plan sponsor is cost conscious and elected to have a passive target date fund as its default.

The utilization of both online advice and managed accounts for this plan has been lower than average, around 4 – 5%. Despite the low utilization rates, the plan sponsor noted that they believe that investment advice overall adds value to the plan given that it provides a valuable service to at least those participants that have higher level of engagement and interest in their retirement goals. While the plan's core investment line-up includes target date funds, passive and active funds, and a self-directed brokerage window, the majority of their participants favored target date funds, which were also the designated QDIA.

In a recent review of their current record-keeper, this plan sponsor also decided to evaluate its current investment advice provider. As a result of a change in its recordkeeping vendor, they decided to replace the current investment advice provider with one that could offer a more robust asset allocation methodology, specifically when considering the fact that target date funds are heavily utilized by a large segment of their participant base. There were no significant operational challenges observed during implementation period aside from limited involvement by staff during the set-up period, where they ensured that the appropriate data feeds between the record-keeper and investment advice provider were established.

Plan Assets	$3.2 billion
Number of Participants	~30,000
Offered Online Advice/Managed Accounts	Both, since 2007
Current Utilization of Online Advice:	4%-5%
Current Utilization of Managed Accounts:	Approximately 5%
Enrollment Method:	Opt In
QDIA	Target Date Fund
Offer Target Date Funds in Investment Line up	Yes
Allocation to Target Date Funds	~78%

Fiduciary Considerations with Investment Advice

Regulatory

Offering investment advisory services may increase fiduciary responsibility. In this section, we review the fiduciary considerations associated with offering non-discretionary and discretionary investment advice. Fundamentally there is distinction between levels of fiduciary responsibility an advisor may assume according to the Employee Retirement Income Security Act of 1974 ("ERISA").

We recognize that the TSP is subject to the Federal Employees' Retirement System Act of 1986 ("FERSA") and not ERISA. However, ERISA remains influential and relevant to the TSP because the language of FERSA is modeled after ERISA and, in the absence of specific case law to the contrary, its "spirit" is typically followed by the courts.

There are two levels of fiduciary protection offered by current investment advice offerings under ERISA 3(21) and 3(38). Under ERISA 3(21), a person is defined as a fiduciary if he/she "renders investment advice for a fee or other compensation". Based on our knowledge of the investment advice providers today, the level of fiduciary protection for both fiduciaries and participants, specifically under ERISA 3(21), may vary greatly across offerings.[21] In fact, some advice providers do not accept the role of a 3(21) fiduciary and instead maintain that they simply provide education or guidance.

Managed account services, on the other hand, are typically provided by a 3(38) discretionary investment manager fiduciary, given the level of control exercised with investment recommendations.[22] Furthermore, if a plan's managed account option is designated as a Qualified Default Investment Alternative (QDIA), the Department of Labor (DOL) *requires* that the investment advice provider offers 3(38) fiduciary protection[21]. ERISA 3(38) investment managers are required to acknowledge their fiduciary role in writing. This level of protection is not required if managed accounts are adopted on an opt-in basis (as opposed to a QDIA default) [21]. In that scenario, managed accounts might be offered by an advisor who has structured a business case to argue that they are instead a 3(21) advisor, but we note that majority[23] of the managed account providers today offer the 3(38) fiduciary protection.

One of the most recent pieces of regulatory guidance with regard to investment advice was the Pension Protection Act of 2006 (PPA), which amended ERISA to create a statutory exemption from the prohibited transaction rules to expand the availability of investment advice to defined contribution plan participants. In October 2011, the DOL published the final rule to implement the PPA provisions and established safeguards for investment advice provided to participants. In late December 2011, the final rule became effective, under which plan record-keepers and other advice providers that may have a structural conflict are permitted to offer investment advice, if they either:

- Use an unbiased computer model that is independently certified to not favor proprietary investments and applies generally accepted investment theories, OR

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[21] US Government Accountability Office. 401(k) Plans. Improvements can be made to better protect participants in managed accounts. June 2014

[22] Kimberly Shaw Elliott. National Institute of Pension Administration. 3(21) versus 3(38) Investment Fiduciary – Decoding the numbers. September 3, 2013. (http://www.nipa.org)

[23] This is supported by findings by the US Government Accountability Office. The report noted that seven out of the eight managed account providers reviewed accept 3(38) fiduciary status.

- Use a fee-leveling arrangement so all investments in the plan incur the same fee (although this is not common)

The final rule also provided several requirements with regard to offering advice. Specifically:

- A plan fiduciary (independent of the investment advisor) must authorize the advice arrangement
- A qualified investment expert must perform the computer model certification
- An annual audit of the computer model or fee-leveling arrangement by an independent auditor is required
- Investment advisors must provide disclosures to plan participants

Field Assistance Bulletin No. 2007-01 summarizes fiduciary responsibilities regarding the evaluation and monitoring of an investment advice provider—specifically that the fiduciary should follow a due diligence process to receive information necessary for the assessment of the qualifications of provider, service quality, and reasonableness of fees, and to confirm that advice is offered based on generally accepted principles of modern portfolio theory. The guidance also notes that ongoing monitoring is required[24]. The next section provides a suggested framework for assessing the advice provider's services.

In its recent report, the GAO notes that there is little guidance available to fiduciaries on the specific details related to the selection and monitoring of managed account providers, specifically there is lack of current guidance with regard to performance and benchmark reporting to plan sponsors and participants. It appears that this is an area that the DOL may consider and address in the future.

In summary, offering investment advisory services increases a plan sponsor's fiduciary responsibility with respect to the evaluation and ongoing monitoring of the investment advice provider. If investment advisory services are offered, some level of fiduciary protection is offered to both plan fiduciaries and participants, even though that still varies greatly among current investment provider offerings.

[24] United States Department of Labor, Field Assistance Bulletin No. 2007-01

Selection Process for Investment Advice Providers

To the extent that the sponsor believes it is appropriate and prudent to offer advice services to participants, it has additional fiduciary responsibilities regarding the prudent selection and monitoring of an investment advice provider. As a part of the selection process, the DOL has indicated that a plan fiduciary must engage an objective due diligence process in order to assess the qualifications of provider, quality, and reasonableness of fees given the level of service offered. The due diligence process for the selection of an investment advice provider follows a similar process as the selection of any other provider, such as investment managers. In addition to documenting the process, we believe that several factors ought to be carefully considered in the selection and ongoing monitoring of an investment advice provider.

The table below summarizes potential evaluation factors for consideration, but we note that this is not an all-inclusive list.

Category	Key Evaluation Factors
Organization	▪ Ownership structure ▪ Registered investment adviser with the SEC ▪ Financial relationships with any investment managers ▪ Alliance partnerships ▪ Investment and technology professionals; years of experience ▪ Assets under management/number of participants covered ▪ Team and client turnover/stability
Fiduciary acceptance	▪ Willingness to serve as a fiduciary ▪ Offers contractual indemnification for advice
Product Offerings	▪ Service offering (e.g., online, paper, and/or phone access to professional account management, and/or advice) ▪ Education/Information (e.g., education articles, historical performance) ▪ Robustness of analysis (e.g., incorporation of outside non-retirement assets, other retirement benefits, Social Security benefits) ▪ In-plan investment options requirement ▪ Participant investment risk tolerance ▪ Deferral rate recommendation ▪ Auto-rebalancing
Model Methodology	▪ Model specifics–assessment of methodology based on generally accepted principles of modern portfolio theory; asset class categories modeled/optimized ▪ Specific investment option analysis ▪ Retirement income solutions–assessment of capabilities around de-accumulation phase in retirement and approach to providing retirement income recommendations
Interaction with Participants	▪ Interfaces with participants (e.g., online tools or chat, phone) ▪ Availability of data aggregation software

Category	Key Evaluation Factors
Plan Sponsor Reporting	▪ At a minimum, reporting on utilization of services levels ▪ Ability to report on performance benchmarks for measuring service quality ▪ Ability to provide periodic reporting for fiduciaries to use in monitoring advice provided (e.g., type of advice provided based on age and other criteria)
Costs	▪ Assessment of reasonableness of costs for the service provided

Benefits and Risks in Offering Investment Advisory Services

In this section, we provide a detailed review of the benefits and risks inherent with the offering of investment advice. As summarized below, the main advantage of either form of investment advice is a personalized retirement forecast based on specific retirement needs and goals. The retirement evaluation takes into account personal retirement goals, which in turn determine the necessary actions to achieve that goal specifically with respect to investing and saving. Managed accounts are the most beneficial for participants that lack the time and knowledge to manage their retirement needs. It is relatively low maintenance as the discretion in execution and implementation of investment decisions rests with the investment advisor. On the other hand, non-discretionary advice is beneficial for participants that are more engaged with their retirement goals and prefer to manage their own investment portfolio. Here discretion over the implementation of the given advice rests with the participant.

In either form, advice is associated with additional costs, the highest of which are associated with managed accounts given the additional layer of fees charged for professional management. Another consideration of note is that plan sponsors choosing to offer investment advisory services, as noted previously, increase their fiduciary responsibility with respect to the selection and monitoring of an investment advice provider.

	Pros	**Cons**
Non-Discretionary Advice	▪ Personalized retirement forecast given retirement goal – recommendations on investments, savings, and retirement income distribution strategies ▪ Increased understanding of the impact of savings rate	▪ Implementation is up to the participant (requires time commitment and follow through) ▪ Additional costs (typically part of recordkeeping service) ▪ Additional fiduciary responsibility (plan sponsor) ▪ May not include assets outside of the plan
Discretionary Advice (Managed Account)	▪ Personalized retirement plan with tailored recommendations on investments, savings, and retirement income strategies into retirement ▪ Increased understanding of the impact of savings rate ▪ Implementation of investment recommendations does not require participants to rebalance ▪ Personalized and frequent communication with participant	▪ Additional costs – Professional management fees in addition to fees of underlying investment options (typically participant) ▪ May also have additional costs borne by the plan sponsor ▪ Additional fiduciary responsibility (plan sponsor)

Benefits

One of the key benefits of investment advice is providing an increased understanding of the actions required for appropriate investing and saving in order to reach a specified retirement income goal at the desired retirement age. Investment advisory services offer the benefit of increasing savings rate and improving the efficiency of participants' individual investment choices[26]. In particular, investment advice helps participants target the appropriate risk/return level and invest in efficient portfolios given their preferred risk level.

Help Increase Savings Rate

While lifecycle/target date funds can help address the issue of building diversified portfolios, investment advisory services may provide a more comprehensive and realistic picture of participants' retirement needs not only with investing appropriately, but also saving adequately towards their goal. Advisory services, for those that choose to use it, help increase the understanding of the impact of deferral rate/savings rate have on final retirement goals. Highlighting the impact of investment advice are the average deferral rates differences across users of target date funds, online advice, and managed accounts. In an Aon Hewitt/Financial Engines report[26] target-date fund participants had the lowest average deferral rates (4.4%), even lower than the 6.6% average rate for "non-help" participants, while those utilizing managed accounts deferred on average 7.5%, and the deferral rate for those using online advice was on average 9.0%.

Help with Properly Diversified Portfolios – "Better Asset Allocation Choices"

Studies have shown that participants who choose to invest themselves have results on average that are below those who typically seek professional "help" (defined as lifecycle/target date funds, online advice and managed accounts). According to a recent study, the annual median returns, net of fees, for "help" participants was 3.32% higher, on average, than "non-help" participants during a five year period between 2006 and 2012[26]. These results can have a meaningful impact on the overall accumulated wealth towards retirement. As noted in the report, this return difference for a 45 year old participant using "help" can translate into 79% more wealth at retirement (at age 65). While a lot of the positive outcomes[27] have been driven by the increased adoption of target date funds as the qualified default investment alternative (QDIA) in an automatic enrollment, surveys show that a significant portion of target date users also invest in other non-target date investments. According to Vanguard[27], in 2013 approximately 44% of participants invested in target date funds also held other funds. This partial use of target date funds can yield less efficient portfolios at inappropriate risk levels with a meaningful impact on investment outcomes. The median annual returns during the period of 2010 to 2012, net of fees, were 244[26] basis points lower for partial target date fund users than for the "help" participants.

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[25] Hewitt EnnisKnupp "Improving DC Plan Investment Governance: Call to Action," 2013
[26] Aon Hewitt/ Financial Engines *Help in Defined Contribution Plans: 2006 through 2012*. 2014
[27] Vanguard How America Saves 2014

To further assess the benefit of "better asset allocation choices" offered by investment advice, we conducted a participant efficiency study. The study measures the efficiency of the individual investment choices, in particular, comparing the participant asset allocation versus the efficient frontier (as defined by the target date funds). The key assumption in this analysis was that the most efficient portfolios are the TSP target date portfolios. Scenario A analyzes the asset allocations by age group based on market data while Scenario B uses the actual TSP participants' asset allocations by age group as a proxy of individual participant investment choices. The rest of the assumptions, as explained further, are the same in both scenarios; the distinction between scenario A and scenario B was the assumption for participant asset allocation used as a proxy for "without advice" allocations.

Scenario A: Measuring Efficiency of Individual Investment Choices

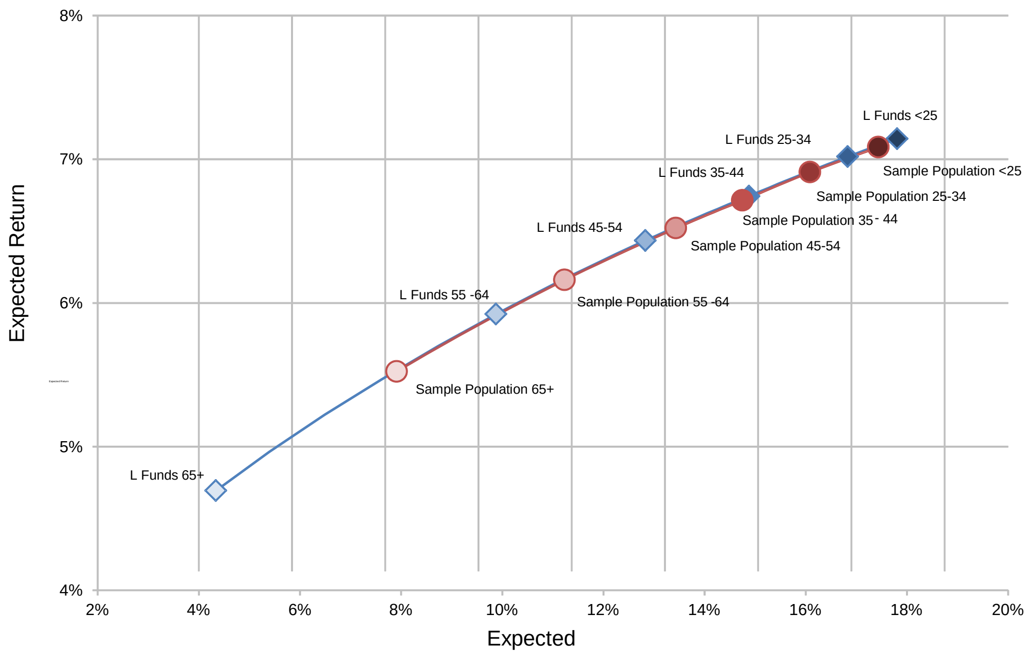
Scenario A assumes the asset allocations by age group (based on market data) as a proxy of individual participant investment choices. The sample data of average asset allocations by age group is sourced from Vanguard's report on defined contribution plans: "How America Saves 2014."

Assumptions:

- The sample data was divided into 6 data sets (ages <25, ages 25 – 34, ages 35 – 44, ages 45 – 54, ages 55 – 64, and ages 65+). The sample allocations (defined as "without advice) were mapped to the most appropriate TSP plan option since the sample data included some investment types of options that are not offered on the TSP (for instance, Balanced Funds were mapped to Lifecycle Funds).
- Aon Hewitt Investment Consulting's capital market assumptions were used to provide expected return, risk, and correlation for each respective asset class. Given the G Fund's unique risk return characteristics, the return assumption was that for Long Duration Government bonds, while the risk assumption was that for Government Cash. We used the asset allocation of the L Funds across relevant age data sets as a proxy for outcomes for participants that use advice (defined as "with advice" allocation).
- Starting balances for balance illustration are based on hire at age 25 with $50,000 salary, $0 account balance, 3% salary increases, and 7% returns from hire to current age, with 5% employee contribution and 5% employer contributions.
- No investment management or investment advice fees were assumed for this analysis.
- The appendix section includes the full analysis.

The key finding of Scenario A is that there is not substantial divergence from the efficient risk/return portfolio mixes defined as those of the TSP L funds. Both "with" and "without" investment advice allocations across all age cohorts are on the efficient frontier, illustrating overall good asset allocation choices given a specific risk level. The main difference between "with" and "without" investment advice outcomes are the level of risk for the age cohorts 45-54, 55-64 and over 65+. Specifically, notably different is the level of risk for the participants in the age 65+ group. Individual participant risk capacity is driven by personal retirement goal as discussed later in the section.

Scenario A: Portfolio Expected Return vs. Expected Risk By Age Group "Without" Advice vs. "With" Advice



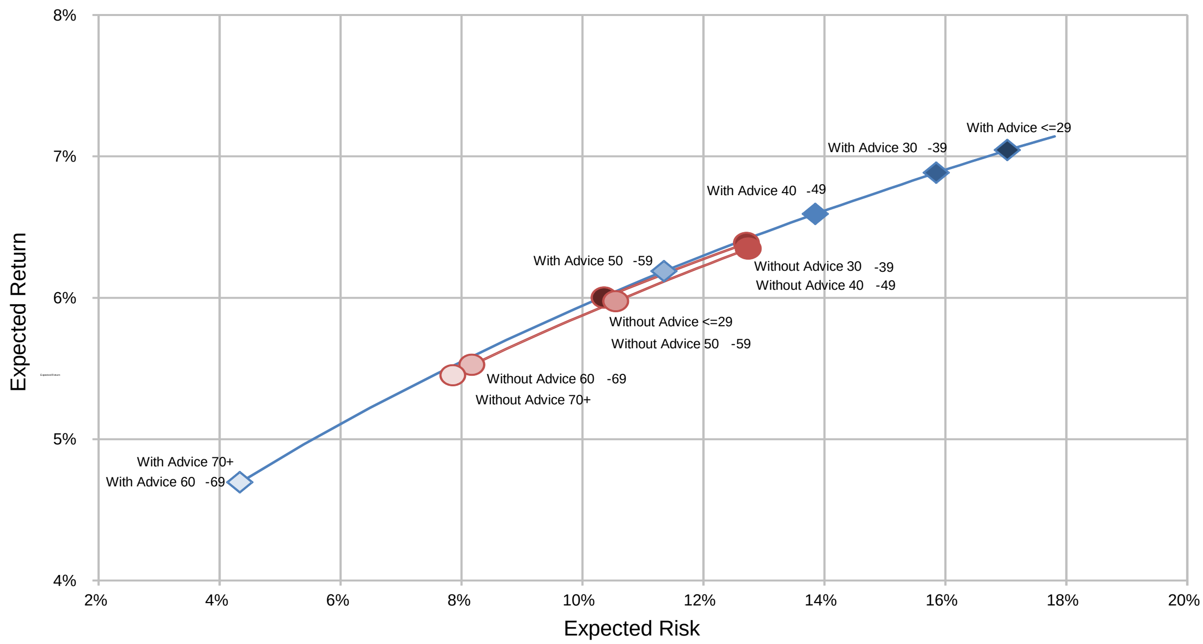
Scenario B: Measuring Efficiency of Individual Investment Choices

Scenario B follows the same assumptions as scenario A except in this scenario the "without advice" allocation is based on actual TSP participants' asset allocations by age group[28]. Similar to scenario A, the TSP L funds are assumed to be the most efficient portfolio mix ("with advice"). The rest of the assumptions as used in scenario A (i.e., starting balances, salary increases, employee/employer contributions, and fees) remain unchanged in scenario B. The appendix section includes the full analysis.

[28] Sourced from TSP 2013 Annual Report. June 2014. *Per our interpretation of the report, the data is based on accounts of 2.4 million TSP participants (defined as active civilian Federal employees).*

In this scenario findings differ significantly. As shown on the figure below, a majority of the age cohorts have targeted insufficient risk/return levels and formed less efficient portfolios at a given risk level, i.e., allocations “without advice” are below the efficient frontier. Specifically, the age cohort <29 years old are targeting the same risk/return level as those in the age cohort 50-59. For that group (<29 years old), on average, we would expect the targeted risk/return level to be higher, similar to the efficient portfolio (“with advice”) for the same age cohort, largely driven by the fact that this younger segment has longer time horizon to retirement. These findings highlight potential benefit that can be derived from investment advisory services, which can assist participants with the improvement in the efficiency of their individual investment allocations.

Scenario B: Portfolio Expected Return vs. Expected Risk By Age Group
“Without” Advice vs. “With” Advice



Help with Targeting Appropriate Risk/Return Levels When Incorporating Outside Plan Assets

Targeting efficient risk/return levels is an area where personalized investment advice may be advantageous, especially when taking into account the impact of outside plan assets, including other retirement (defined benefit or other defined contribution accounts) and non-retirement assets, spousal assets, stock options, social security benefits, etc. While time horizon is an important determinant of risk tolerance, it is not the sole factor for individual risk capacity. The amount of outside assets in addition to current 401(k) balances are essential in the determination of appropriate risk level and in turn appropriate asset allocation and final outcome.

To illustrate the impact of outside assets on asset allocation decisions and how investment advice may be beneficial, we prepared three average participant scenarios for age 30, 45, and 62, each with targeted retirement age of 65. The financial scenarios for participants age 45 and 62 were more complex than the 30-year old participant. We provided these scenarios to three investment advice providers and requested their recommendation on asset allocation. The results show that given the amount of outside assets and complex financial circumstances for participants age 45 and 62, the advice providers' recommended asset allocation differed significantly than the age appropriate target date. Whereas in contrast, the hypothetical scenario of younger participant (age 30), the risk level as proposed by the target date fund, may be appropriate considering low account balance and no/minimal outside assets, and long investment horizon.

Figure 9 further shows that when considering the amount of outside plan/spousal assets for a participant at age 45, this could impact the participant's individual risk appetite. Similar observations can be noted for the situation of a participant aged 62. For that participant, while the current lower risk level, as dictated by a target date fund, may seem appropriate given that he is only three years away from retirement (at age 65), the amount and type of investment assets outside of the current plan, may allow for a higher risk tolerance in his defined contribution plan.

Figure 9. Asset Allocation Impact When Factoring Outside Assets

Age 30	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	34.0%	35.0%	47.0%	30.0%
Small Cap U.S. Equity	12.0%	26.0%	19.0%	14.0%
International Equity	25.0%	29.0%	22.0%	29.0%
Cash	27.0%	3.0%	0.0%	2.0%
Fixed Income	8.0%	1.0%	6.0%	33.0%
Expected Nominal Return	**6.7%**	**6.9%**	**6.4%**	**6.8%**
Expected Risk (Volatility)	**16.6%**	**17.2%**	**14.7%**	**16.6%**

Age 45	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	34.0%	35.0%	47.0%	30.0%
Small Cap U.S. Equity	12.0%	26.0%	19.0%	14.0%
International Equity	19.0%	35.0%	28.0%	21.0%
Cash	27.0%	3.0%	0.0%	2.0%
Fixed Income	8.0%	1.0%	6.0%	33.0%
Expected Nominal Return	**5.9%**	**7.2%**	**7.0%**	**6.1%**
Expected Risk (Volatility)	**12.7%**	**19.0%**	**18.3%**	**12.8%**

Age 62	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	12.0%	35.0%	33.0%	25.0%
Small Cap U.S. Equity	3.0%	35.0%	16.0%	10.0%
International Equity	5.0%	29.0%	20.0%	15.0%
Cash	74.0%	0.0%	5.0%	3.0%
Fixed Income	6.0%	1.0%	26.0%	47.0%
Expected Nominal Return	**3.5%**	**7.3%**	**6.2%**	**5.5%**
Expected Risk (Volatility)	**4.1%**	**20.1%**	**13.6%**	**9.9%**

The calculations above are for illustration purposes only. The “advice allocations” are provided by three investments advice providers based on provided hypothetical circumstances (shown in the appendix section of the report). The shown expected return/risk is based on Aon Hewitt Investment Consulting Capital Market Assumptions (Q32014) and is for illustrative purposes only.

Help Understanding Income Needs and Distribution Income Strategies During Retirement

Investment advice services help participants determine the most appropriate income distribution strategies. Specifically, this may be beneficial for those participants that are near or close to retirement and plan to draw income from their retirement plan. An investment adviser can assist with the development of specific distribution income strategies given their retirement goal. Income distribution decisions such as lump sum vs. monthly income payout are an important part for the retirement preparedness for the decumulation stage.

Direct and Personalized Communication with Participants

Both advice/managed account services offer direct communication and reporting to participants. The participant statement is typically personalized and offers retirement readiness projections. It typically includes retirement goals, risk tolerance, expected retirement age and monthly or annual retirement income. More importantly, it offers an action plan towards savings, investment changes, and overall specified goals. Online advice service generally offers various forms of contact and communication with the participant who elects to use the service. In many cases, the online advice offering is integrated with the provider's benefit's website and recommendations on savings, investments, risk, retirement age, and goals are displayed anytime a participant accesses the website. Quarterly retirement update emails are also frequently provided. Investment advice services offer robust and regular communication materials that are personalized and specific to the participant circumstances, which could improve participants' overall engagement level and could have a positive impact on understanding of retirement preparedness.

Implementation of Investment Recommendations (managed accounts)

One of the key benefits and differentiating features of managed accounts relative to non-discretionary advice is that managed accounts solve for the participant inertia that is prevalent in implementation of the investment recommendations. In a managed account format the discretion for implementation decisions is given to the investment adviser. In managed accounts, participants are not required to make any decisions other than selecting the managed account feature, completing a comprehensive questionnaire, and updating personal information, when necessary.

Risks

Additional Costs

Costs are the second most cited reason for plan sponsors to be skeptical about the adoption of either form of investment advisory services[29]. Additional costs and pricing structures associated with both forms of investment advice typically vary based on specific circumstances of a plan and the type of arrangement the investment provider may have with the record-keeper. Costs associated with non-discretionary advice are typically embedded within fees for record-keeping services. In some cases participants may also be charged a hard dollar fee for the service. Discretionary advice or professional management account fees are typically asset-based fees, either flat or variable. These fees are in addition to the fees of the plan's underlying investment options and typically paid by the plan participant who elects to use the service. Asset based fees are generally based on account size, expected utilization of services and/or chosen enrollment method.

Below we discuss the nuances with each type of cost associated with offering advice and/or managed accounts.

- Implementation Fees

  The set-up fees are one-time implementation costs incurred for the setup of the data link and interface between the specific plan and record-keeper. This type of fee is determined based on the complexity and the level of customization required by the plan sponsor. These costs may be waived in some instances and that typically varies based on the specific situation. An instance where these fees may be waived is if and when the advice provider has a direct relationship with the plan record-keeper.

  The plan sponsor should request and consider any potential fees for set-up and implementation, including fulfillment and postage for participant communications. Costs could include those of the record-keeper, advice provider and (potentially) any third party providing participant communications services, if this is not handled by the record-keeper's education and communications team.

- Non-Discretionary Advice Platform Fees

  These types of fees are typically associated with the non-discretionary advice offerings. These fees are generally costs associated with access to online advice or call centers, print and mail costs for communication materials, and reporting to plan sponsors. This type of fee is typically quoted as a hard-dollar fee on a per-participant basis or as a part of the record-keeping costs.

- Discretionary Advice - Managed Accounts Fees

  Fees for professional management (managed accounts) are costs in addition to the fees of the underlying core funds in the plan. Typically, this type of fee is asset-based and varies by participant account balance. Asset based fees may differ across enrollment method and anticipated usage level. Typical targeted usage level is 20% and fees for usage lower than the target maybe higher.

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[29] 2013 Aon Hewitt Trends & Experience in Defined Contribution Plans notes the top three concerns with offering outside investment advisory services – 61% reported that the primary barrier for not offering investment advice services is due to legal/fiduciary concerns, followed by cost issues at 18%.

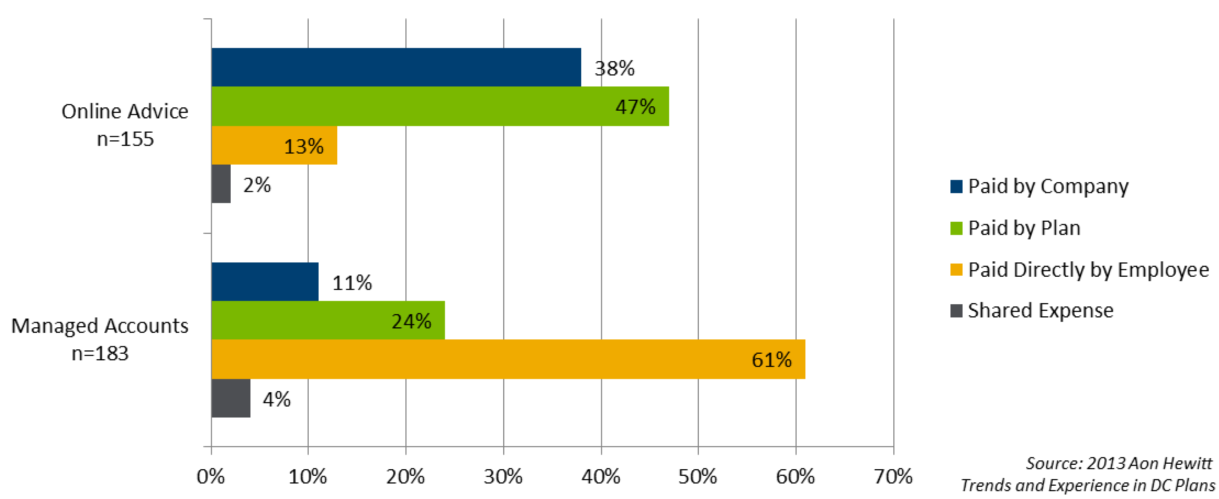
Summary of Additional Costs

Type of Costs	Typical Range* (Low-High)	Who typically pays them?
Set Up Fees	$0 to $100,000+	Plan sponsor
Advice Platform Fee	$3 to $15 per participant (annually)	Participant or Plan sponsor
Managed Accounts Fees	0.30% to 0.60%	Participant

**Please note the provided numbers above are based on the assessment of standard fee schedules as provided by several major investment advice providers. As noted above, pricing and specific costs will vary greatly depending on plan specifics.*

The illustration below provides current practices regarding payment method of investment advice services. As shown below, among those plan sponsors that offer investment advice, the cost of online advice is most often paid by the plan or the company. In contrast, managed accounts costs are mainly paid by the employee using the services.

Figure 10. Payment Method for Investment Advisory Services



Potential for Low Utilization of Investment Advisory Services Offered

The risk of low utilization of investment advisory services is real. As we noted earlier in the report, typical utilization of either form of investment advice is around 10%. Furthermore, the value of the investment advice provided is largely predicated on the accuracy and timely update of personal information as provided by each participant. Series of communication programs during enrollment period as well as periodic targeted communication campaigns can, to a degree, alleviate this risk.

Increased Fiduciary Effort

The decision to offer investment advisory services results in increased fiduciary effort. A plan sponsor has the responsibility for the oversight, selection and monitoring of the investment advice service provider. Measuring value of the services provided by the investment provider may be challenging as there is no standard metrics for evaluation of individual outcomes. Performance evaluation and benchmark reporting varies from provider to provider and most[30] find it difficult to provide to plan sponsors given the high level of portfolio customization. As noted in the fiduciary section of this report, it is expected that Department of Labor may issue further guidance on the specific elements of reporting and monitoring.

[30] GOA June 2014 report on 401(k) Plans

Operational Complexities and Challenges associated with the Implementation of Investment Advice

In this section we provide an overview of the operational complexities and challenges associated with the implementation of either non-discretionary advice or discretionary managed accounts advice.

The implementation effort places the burden of heavy lifting on the record-keeper and the investment advice provider, assuming the third party record-keeper and advice provider develop participant communications materials, and manage or coordinate systems changes such as those required for transactions, account updates, participant and plan sponsor websites, and reporting programs.

Despite the key role played by the record-keeper and investment advice provider, the plan sponsor will face time-sensitive operational and administrative requirements.

We address potential operational risks from this perspective below. Adherence to project requirements is a key to success. Managing potential risk related to the effectiveness of the offering, contractual matters and participant understanding requires the plan sponsor to consider the following as a part of its execution strategy:

Develop Project Approach and Timeline

Coordinate project timelines and milestones with the record-keeper and investment advice provider, considering whether the implementation date should coincide with other plan changes (to funds, plan provisions, or other participant offerings) to minimize confusion, and/or to build awareness and excitement about how the retirement plan can help participants reach their personal goals.

Address Contractual Concerns

Review and adopt resulting changes to the contracts, such as the trust agreement, investment management agreement, recordkeeping services contract, with particular attention to allocation of responsibilities (including the acceptance of fiduciary responsibility for the advice provided), and any notice requirement for service changes or termination.

Consider Participant Access and Delivery Issues

Plan offerings must be provided in a non-discriminatory manner. Employee demographics are a key consideration in ensuring that participants can access and understand the information and opportunities inherent in the offering, such as the following examples of delivery channel considerations:

- Are Spanish language materials or translation required to ensure success?
- If few employees have access to a computer at home or work, is mobile app functionality available?
- Are phone advisors required to ensure equal access and the viability of the offering?

Address Plan Provisions Alignment and Data Integrity

The plan-sponsor should consider participating in a planning conference with the record-keeper and investment advice provider to ensure that there are no issues with participant data required to effectively support calculations and other processes underlying the advice solutions. For example:

- Plan provisions such as the plan's deferral rate limit must be addressed correctly, if any different than the Internal Revenue Service maximum, or if limited only for highly-paid employees.
- Administrative processes must be correctly addressed, such as the frequency of deferral rate changes, or rebalancing functions.
- Payroll and related indicative data is required to properly calculate participant recommendations (or suggestions, in the case of "guidance"); if dates of birth are missing, or if participant compensation is not currently being passed to the record-keeper on a regular basis, now is the time to develop a solution.
- Participants marked with "bad address" flags may not receive required materials, and participants with non-U.S. addresses may not be eligible for Managed Accounts due to Securities Exchange Commission registration of the advice provider.

Manage Participant Communications and Notices Strategy

- Discuss the participant communications strategy with the record-keeper/investment advice provider, e.g., whether this change can be made concurrent with other plan changes and which vehicles of communication will be most effective, considering Department of Labor guidelines for electronic delivery.
- Establish dates for train-the-trainer events, if local Human Resource representatives are used to communicate plan changes.
- Ensure that Human Resource representatives understand the boundaries of their role, i.e., the distinction between providing information and discussing participant-specific advice (which can give rise to fiduciary exposure).
- Consider whether the required 30-day notice to participants could be combined with another communication, if fulfillment and postage for a separate mailing are a concern.
- Ensure that the technical due dates for participant notices are met (at least 30 days, but not more than 90 days in advance of the change).

As with any other undertaking, it is helpful to consider risk as neutral, rather than negative; favorable outcomes can be achieved by assessing, understanding, and managing operational risks attendant with implementation of any participant offering, including investment advisory services.

Recommendation

We believe the FRTIB should consider incorporating an investment advisory solution that includes managed accounts as an offering to the participants in the TSP. The data, as detailed in this report, demonstrates that investment advice can be beneficial to defined contribution participants by improving their savings rates and asset allocation, and therefore, retirement readiness. In particular, investment advice can be extremely useful for those participants that do not want to make their own investment decisions or have outside investments or retirement plans that need to be factored to achieve the appropriate asset allocation. Based on TSP demographics such as average age (46) and average account balance ($109k)[1], we would expect that TSP would see average adoption rates of investment advisory services that are in line with utilization rates across the industry for participants age 45 and older with larger account balances. This group is also generally a heavier user of investment advisory services.

However, there are additional administrative complexities that need to be considered when adding investment advice. For the TSP given that the recordkeeping and administration is maintained in-house and the significantly higher number of participants than the average defined contribution plan, these complexities need to be weighted significantly when making the decision on whether to offer advice.

From a pure investment perspective, we recommend adoption of investment advice for plan sponsors of defined contribution plans. The data is convincingly in favor of participants not selecting their own allocations, but instead using investment advice or managed accounts to achieve better outcomes and improve retirement readiness. We recommend the TSP consider adding some form of investment advice, but recognize that a rigorous review of the current providers' ability to offer investment advice to such a large participant base should be part of this process, as well as a detailed review of the administrative complexities this will present.

Appendices

Appendix I - Participant Investment Efficiency Study – Scenario A
Assumptions and Methods – Scenario A

Asset Class and Asset Allocation Mappings
Capital Market Assumptions for TSP Funds (Based on Aon Hewitt Investment Consulting 2014 Q3)

Sample Population Asset Classes by Age Group

Age	Company Stock	Diversified Equity Funds	Target Date Funds	Other Balanced Funds	Bond Funds	Cash
<25	4%	7%	80%	6%	1%	2%
25-34	4%	18%	61%	9%	3%	5%
35-44	5%	30%	42%	11%	4%	8%
45-54	5%	34%	34%	11%	5%	11%
55-64	6%	31%	28%	12%	7%	16%
65+	7%	26%	22%	11%	8%	26%

TSP L Funds - Allocations for Sample Ages

Age	G Fund	F Fund	C Fund	S Fund	I Fund
25	0%	10%	44%	19%	27%
30	5%	10%	42%	18%	25%
40	16%	9%	38%	16%	21%
50	27%	8%	34%	12%	19%
60	43%	7%	27%	8%	15%
65	74%	6%	12%	3%	5%

Mapping from Sample Population Asset Classes to TSP Funds

TSP Fund	Company Stock	Diversified Equity Funds	Target Date Funds	Other Balanced Funds	Bond Funds	Cash
G Fund						100%
F Fund					100%	
C Fund	100%	50%				
S Fund		20%				
I Fund		30%		100%		
L Funds			100%			

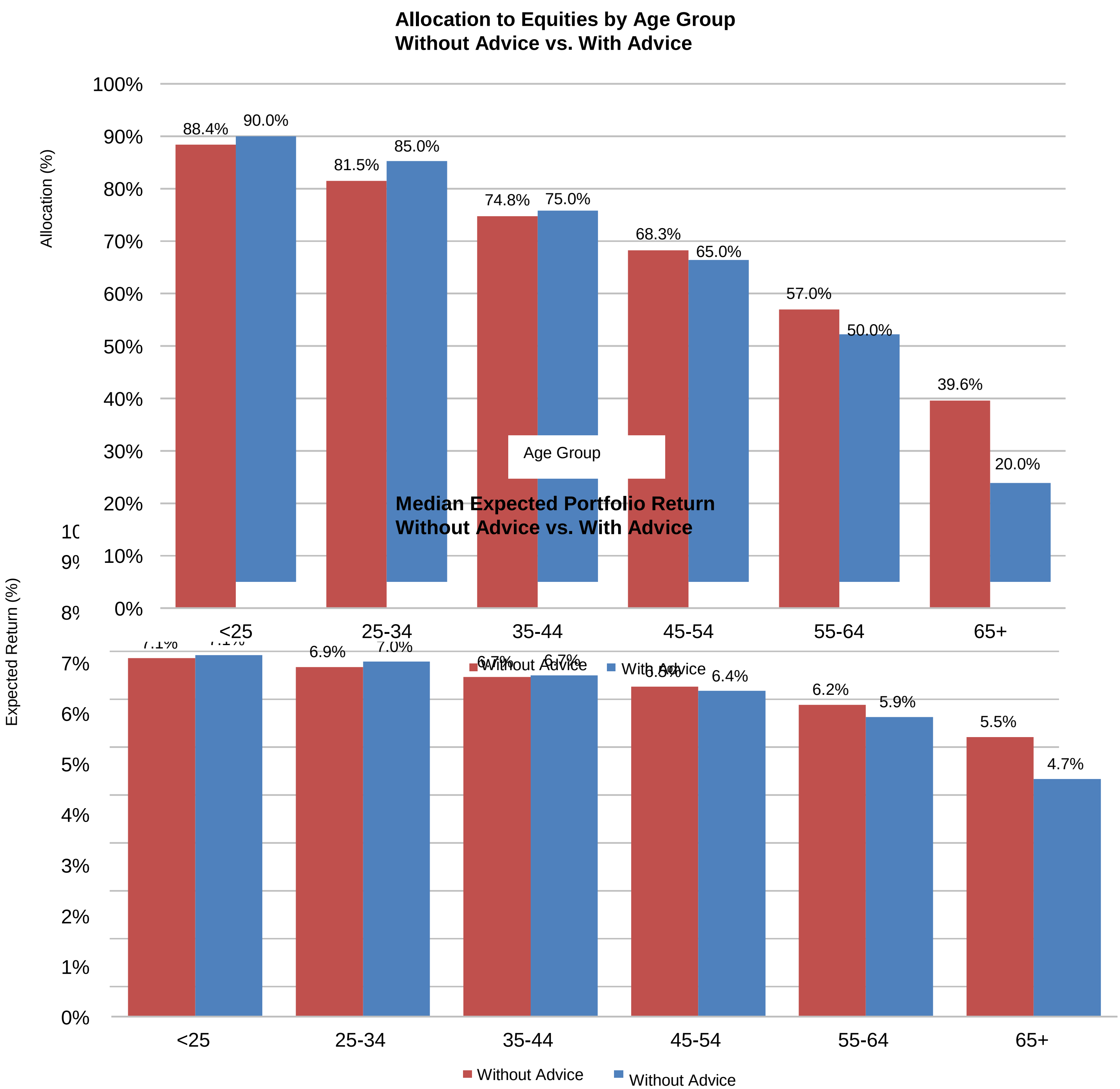
Sample Population - Allocations for Sample Ages

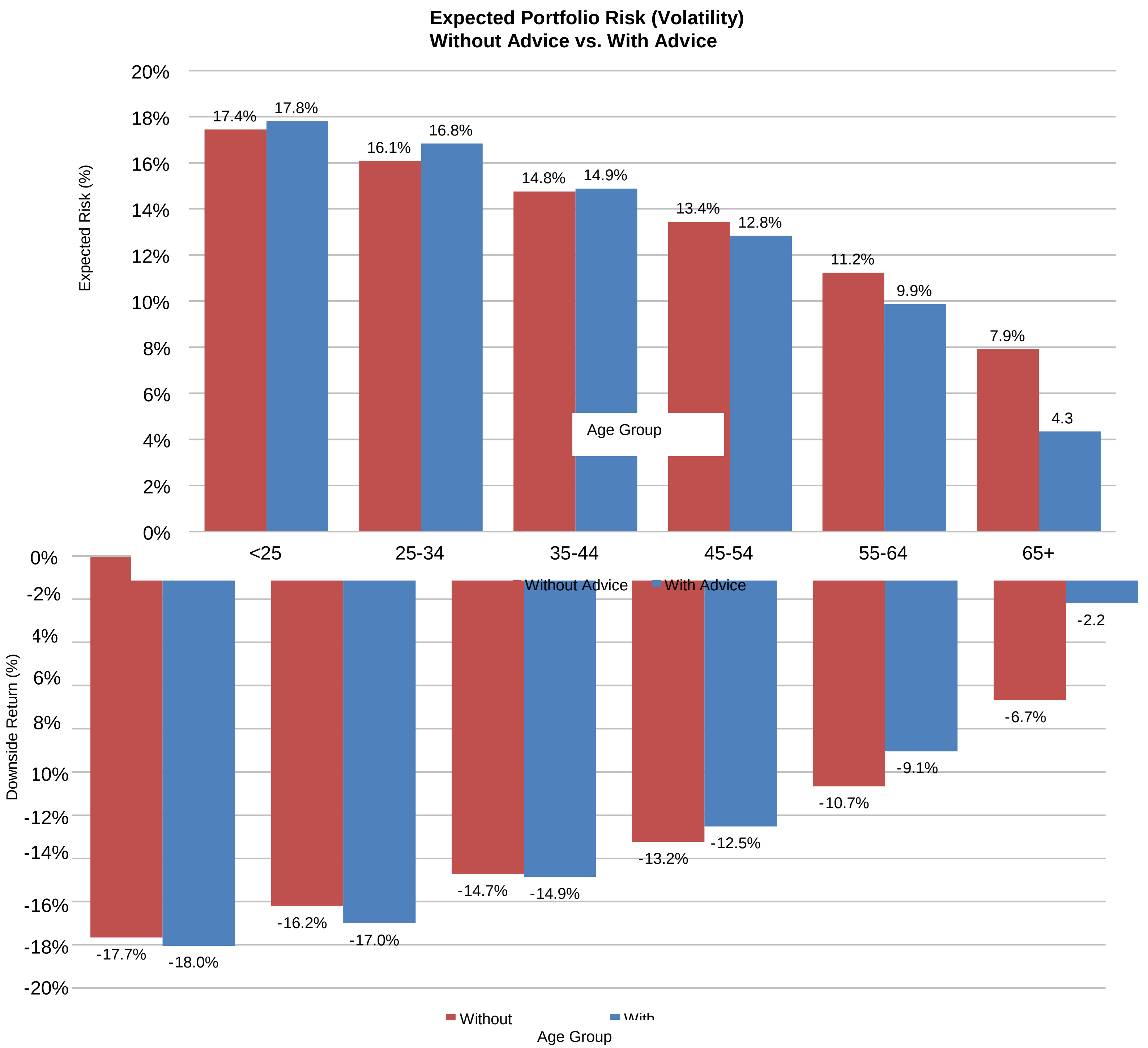
Age	G Fund	F Fund	C Fund	S Fund	I Fund
25	2.00%	9.60%	45.34%	17.74%	25.32%
30	8.50%	10.00%	42.40%	16.20%	22.90%
40	16.48%	8.77%	40.14%	14.48%	20.13%
50	23.15%	8.60%	37.30%	12.20%	18.75%
60	33.20%	9.80%	32.30%	9.40%	15.30%
65	50.42%	9.98%	23.96%	6.19%	9.45%

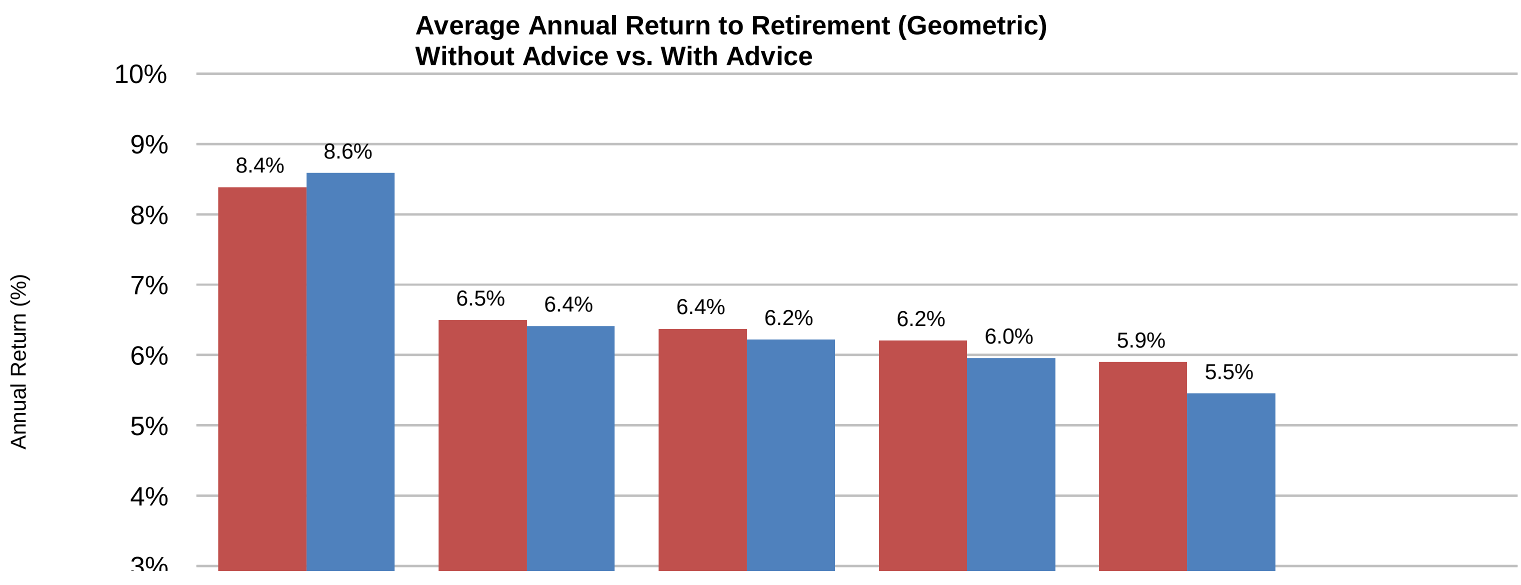
			Expected	Expected			Correlations		
Fund	**Benchmark**	**HEK Asset Class**	**Return**	**Risk**	**G Fund**	**F Fund**	**C Fund**	**S Fund**	**I Fund**
G Fund	N/A	Gov Cash (with Long Gov't exp rtn)	3.7%	2.0%	1.00	0.53	0.09	0.07	0.04
F Fund	BC Agg	Core Fixed Income (Market Duration)	4.0%	5.0%	0.53	1.00	0.03	0.02	0.02
C Fund	S&P 500	Large Cap U.S. Equity	6.8%	19.0%	0.09	0.03	1.00	0.92	0.80
S Fund	DJ US Completion	Small Cap U.S. Equity	7.3%	25.5%	0.07	0.02	0.92	1.00	0.73
I Fund	MSCI EAFE	International Equity	7.4%	21.0%	0.04	0.02	0.80	0.73	1.00

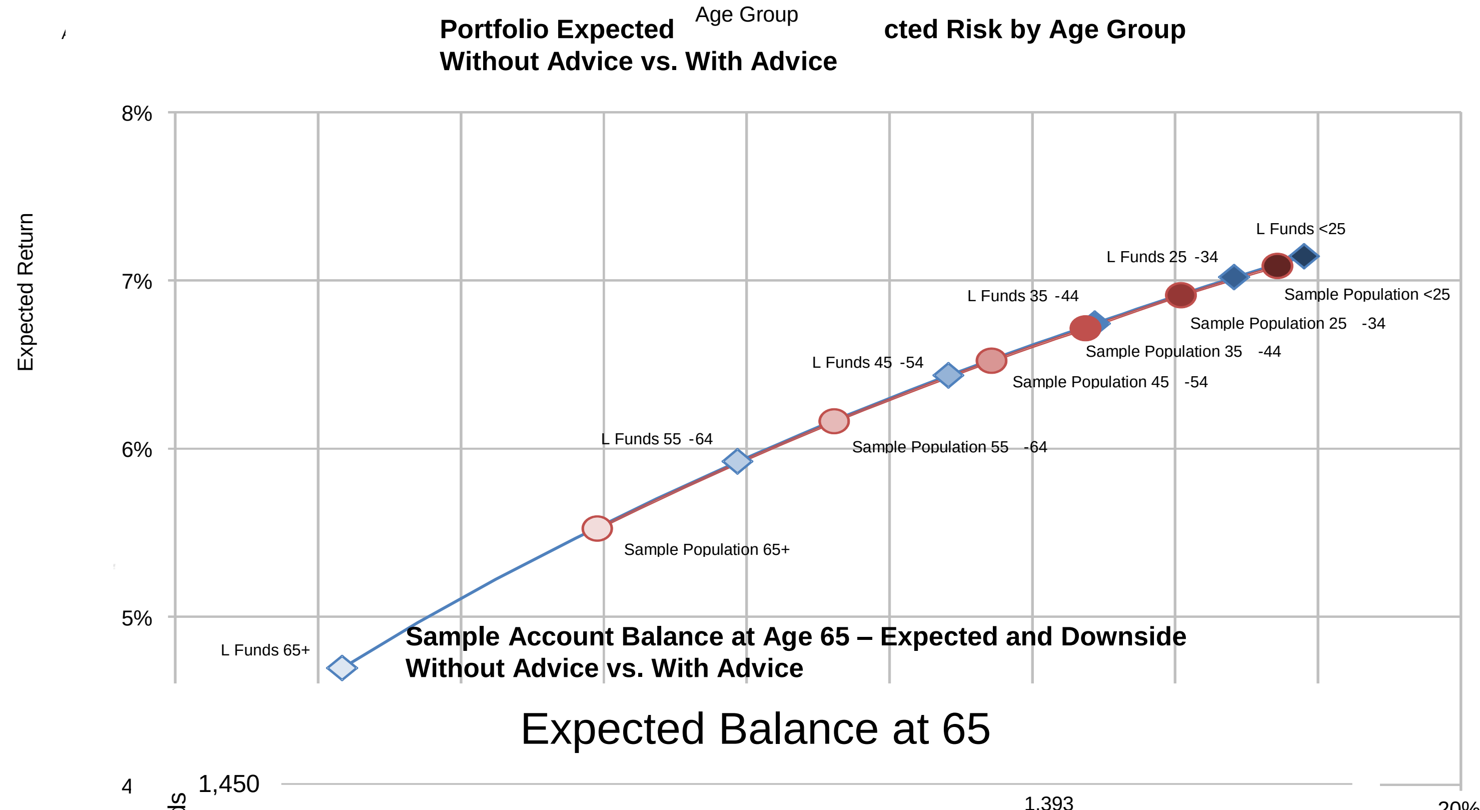
Other assumptions:

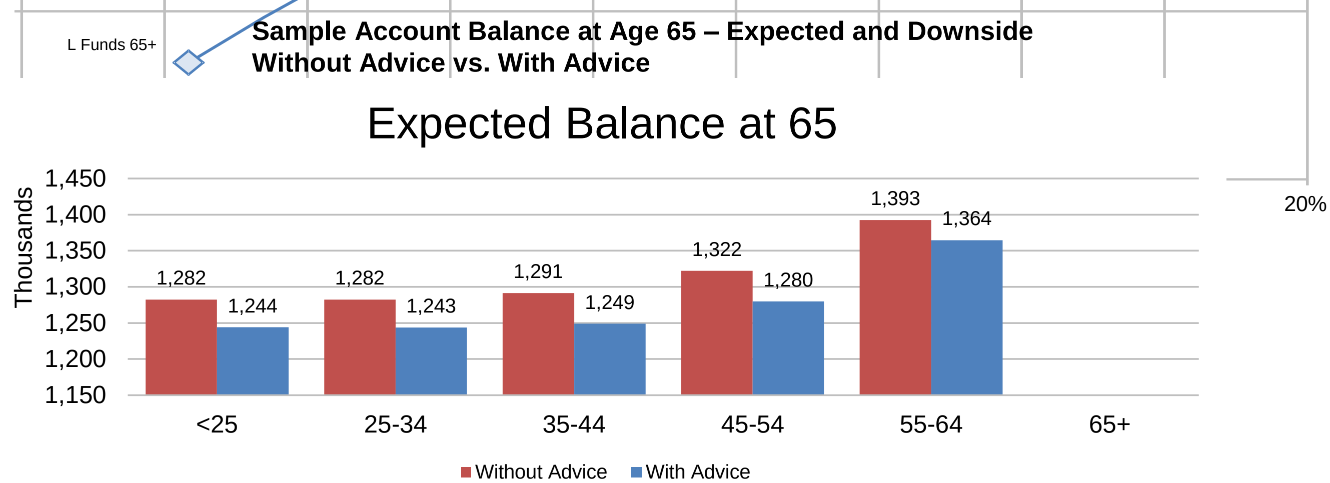
- Allocations without advice are based on sample population; allocations with advice are based on TSP L Funds
- Investment returns are purely passive returns, with no adjustments for fees or manager alpha
- Starting balances for balance illustration are based on hire at age 25 with $50,000 salary, $0 account balance, 3% salary increases, and 7% returns from hire to current age,
- Based on Aon Hewitt Investment Consulting 2014 Q3 Capital Market Assumptions. Given the G Fund's unique risk return characteristics, the expected return assumption was that for Long Duration Government bonds, while the risk assumption was that for Government Cash.


Allocation to Equities by Age Group
Without Advice vs. With Advice
Allocation (%)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
88.4%
90.0%
81.5%
85.0%
74.8%
75.0%
68.3%
65.0%
57.0%
50.0%
39.6%
20.0%
<25
25-34
35-44
45-54
55-64
65+
Age Group
Median Expected Portfolio Return
Without Advice vs. With Advice
Expected Return (%)
7%
6%
5%
4%
3%
2%
1%
0%
6.9%
7.0%
6.4%
6.2%
5.9%
5.5%
4.7%
Without Advice
With Advice
<25
25-34
35-44
45-54
55-64
65+
Without Advice
Without Advice


Expected Portfolio Risk (Volatility)
Without Advice vs. With Advice
Expected Risk (%)
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
17.4%
17.8%
16.1%
16.8%
14.8%
14.9%
13.4%
12.8%
11.2%
9.9%
7.9%
4.3
Age Group
<25
25-34
35-44
45-54
55-64
65+
Without Advice
With Advice
Downside Return (%)
0%
-2%
4%
6%
8%
10%
-12%
-14%
-16%
-18%
-20%
-17.7%
-18.0%
-16.2%
-17.0%
-14.7%
-14.9%
-13.2%
-12.5%
-10.7%
-9.1%
-6.7%
-2.2
Without
Age Group

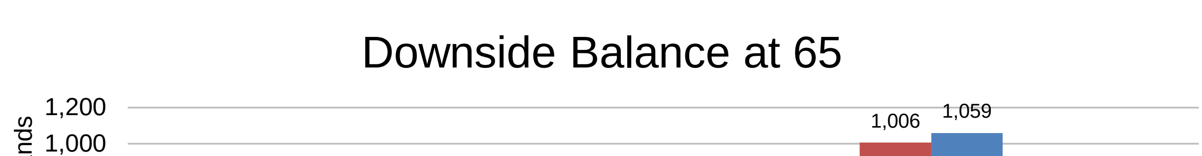

Average Annual Return to Retirement (Geometric)
Without Advice vs. With Advice
Annual Return (%)
10%
9%
8%
7%
6%
5%
4%
3%
8.4%
8.6%
6.5%
6.4%
6.4%
6.2%
6.2%
6.0%
5.9%
5.5%
Age Group


Portfolio Expected
cted Risk by Age Group
Without Advice vs. With Advice
Expected Return
8%
7%
6%
5%
4
20%
L Funds <25
L Funds 25 -34
L Funds 35 -44
L Funds 45 -54
L Funds 55 -64
L Funds 65+
Sample Population <25
Sample Population 25 -34
Sample Population 35 -44
Sample Population 45 -54
Sample Population 55 -64
Sample Population 65+


Sample Account Balance at Age 65 – Expected and Downside
Without Advice vs. With Advice
Expected Balance at 65
Thousands
1,450
1,400
1,350
1,300
1,250
1,200
1,150
1,282
1,244
1,282
1,243
1,291
1,249
1,322
1,280
1,393
1,364
<25
25-34
35-44
45-54
55-64
65+
Without Advice
With Advice

Inve

Rev


Downside Balance at 65
nds
1,200
1,000
1,006
1,059

Appendix I - Participant Investment Efficiency Study – Scenario B

Assumptions and Methods – Scenario B

Asset Class and Asset Allocation Mappings
Capital Market Assumptions for TSP Funds (Based on Aon Hewitt Investment Consulting 2014 Q3)

TSP L Funds - Allocations for Age Cohorts

Age	G Fund	F Fund	C Fund	S Fund	I Fund
29	4%	10%	42%	18%	25%
35	11%	10%	40%	17%	23%
45	22%	9%	36%	14%	20%
55	35%	8%	31%	10%	17%
65	74%	6%	12%	3%	5%
70	74%	6%	12%	3%	5%

Allocations by Age Cohorts

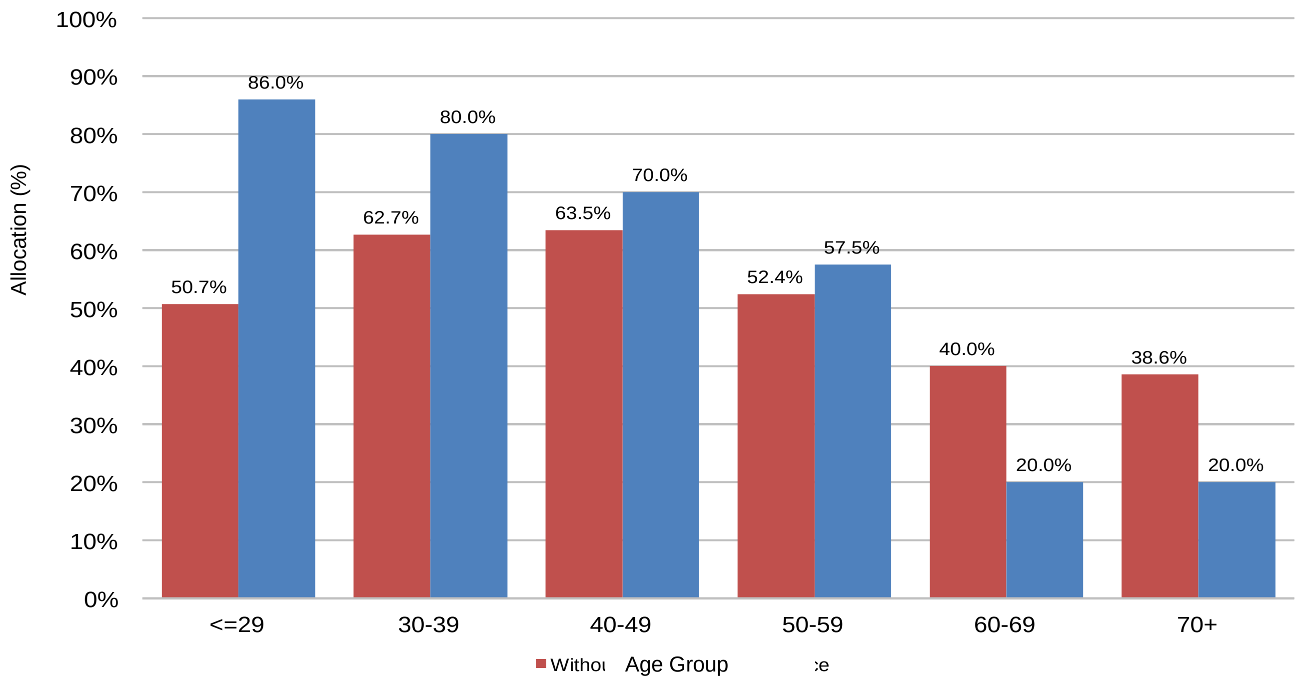
Age	G Fund	F Fund	C Fund	S Fund	I Fund	L Fund
<29	44%	2%	10%	10%	6%	29%
30-39	29%	3%	19%	13%	9%	27%
40-49	27%	4%	31%	13%	8%	18%
50-59	36%	5%	28%	11%	6%	15%
60-69	44%	6%	24%	9%	5%	13%
70+	48%	6%	25%	8%	4%	8%

Fund	Benchmark	HEK Asset Class	Expected Return	Expected Risk	Correlations G Fund	F Fund	C Fund	S Fund	I Fund
G Fund	N/A	Gov Cash (with Long Gov't exp rtn)	3.7%	2.0%	1.00	0.53	0.09	0.07	0.04
F Fund	BC Agg	Core Fixed Income (Market Duration)	4.0%	5.0%	0.53	1.00	0.03	0.02	0.02
C Fund	S&P 500	Large Cap U.S. Equity	6.8%	19.0%	0.09	0.03	1.00	0.92	0.80
S Fund	DJ US Completion	Small Cap U.S. Equity	7.3%	25.5%	0.07	0.02	0.92	1.00	0.73
I Fund	MSCI EAFE	International Equity	7.4%	21.0%	0.04	0.02	0.80	0.73	1.00

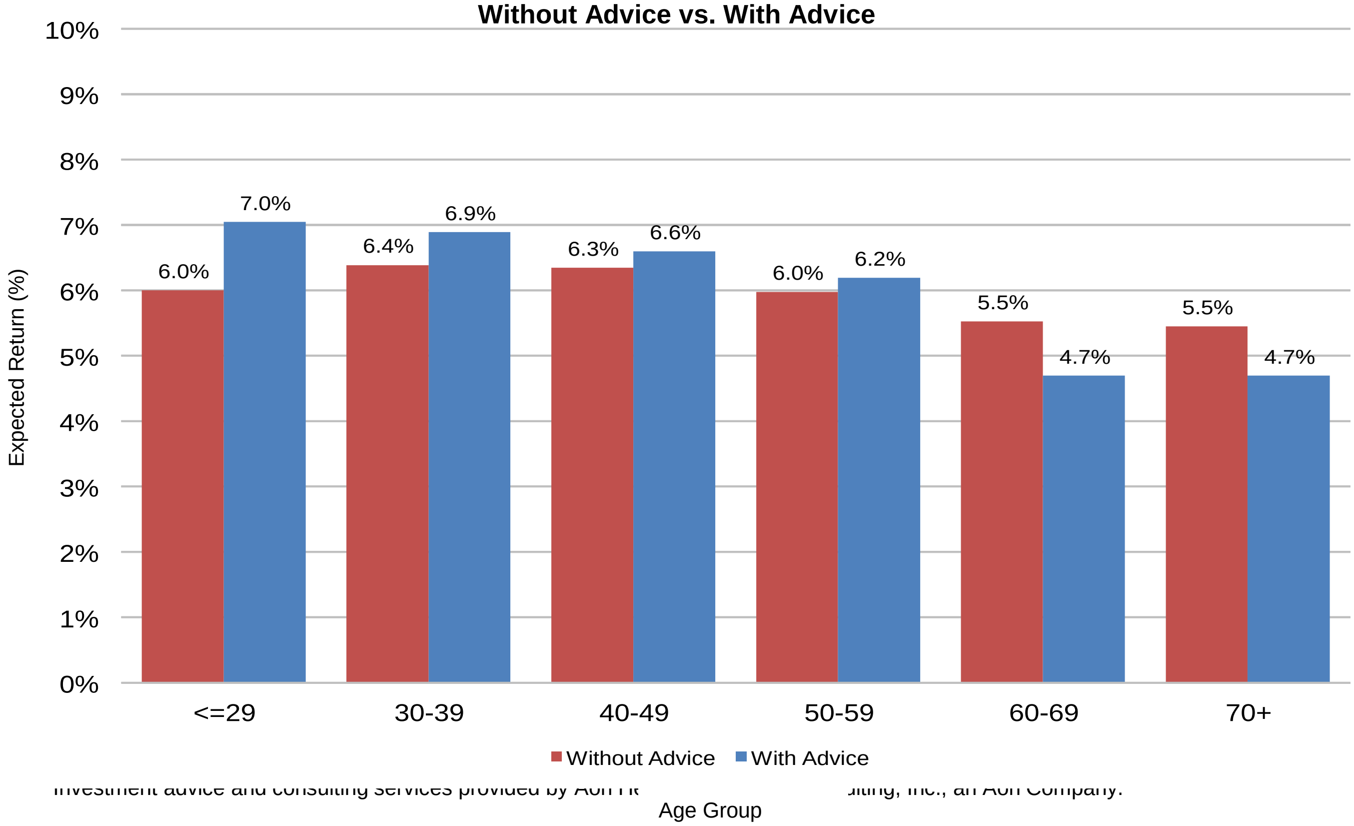
Other assumptions:

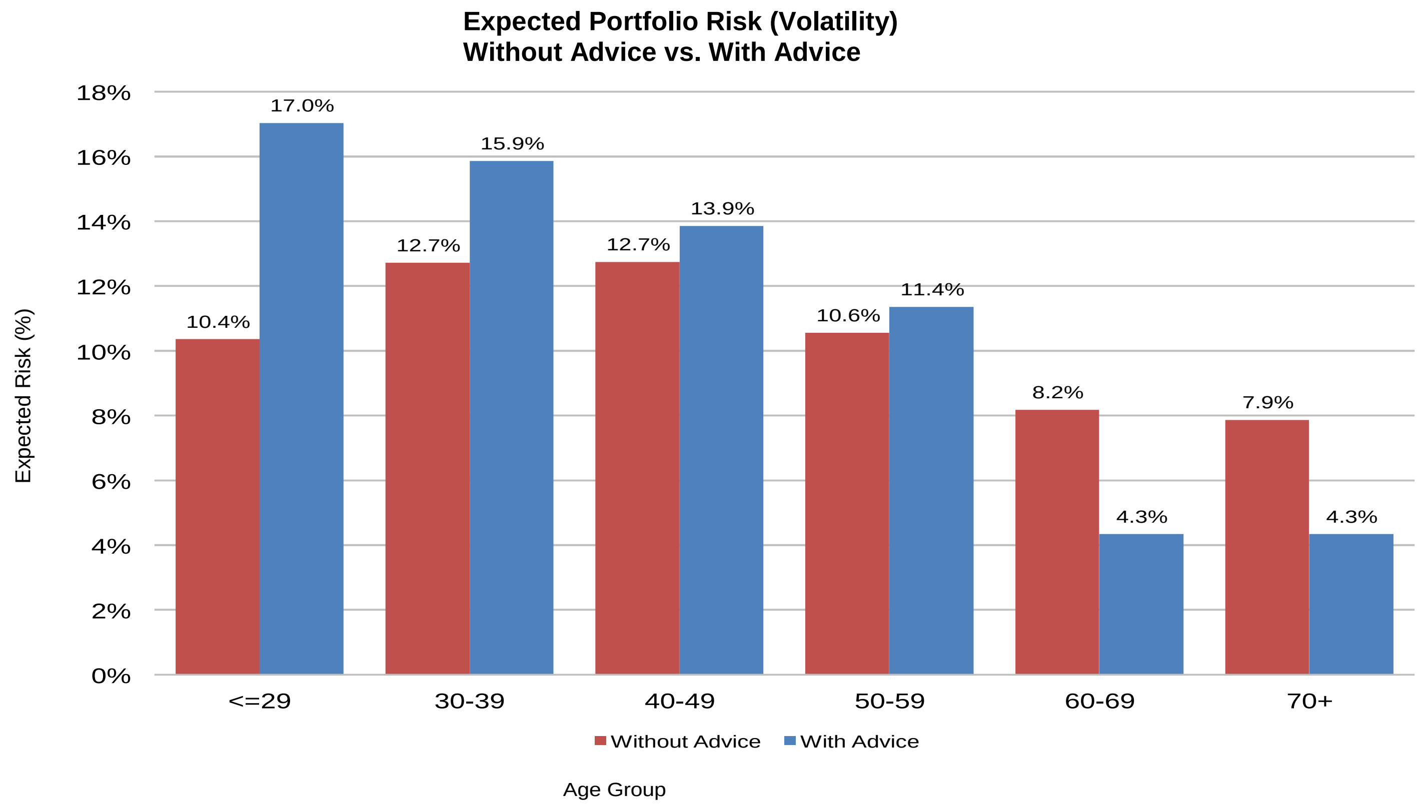
- Allocations without advice are based on age cohorts shown in TSP 2013 Annual Report; allocations with advice are based on TSP L Funds
- Investment returns are purely passive returns, with no adjustments for fees or manager alpha
- Based on Aon Hewitt Investment Consulting 2014 Q3 Capital Market Assumptions. Given the G Fund's unique risk return characteristics, the expected return assumption was that for Long Duration Government bonds, while the risk assumption was that for Government Cash.

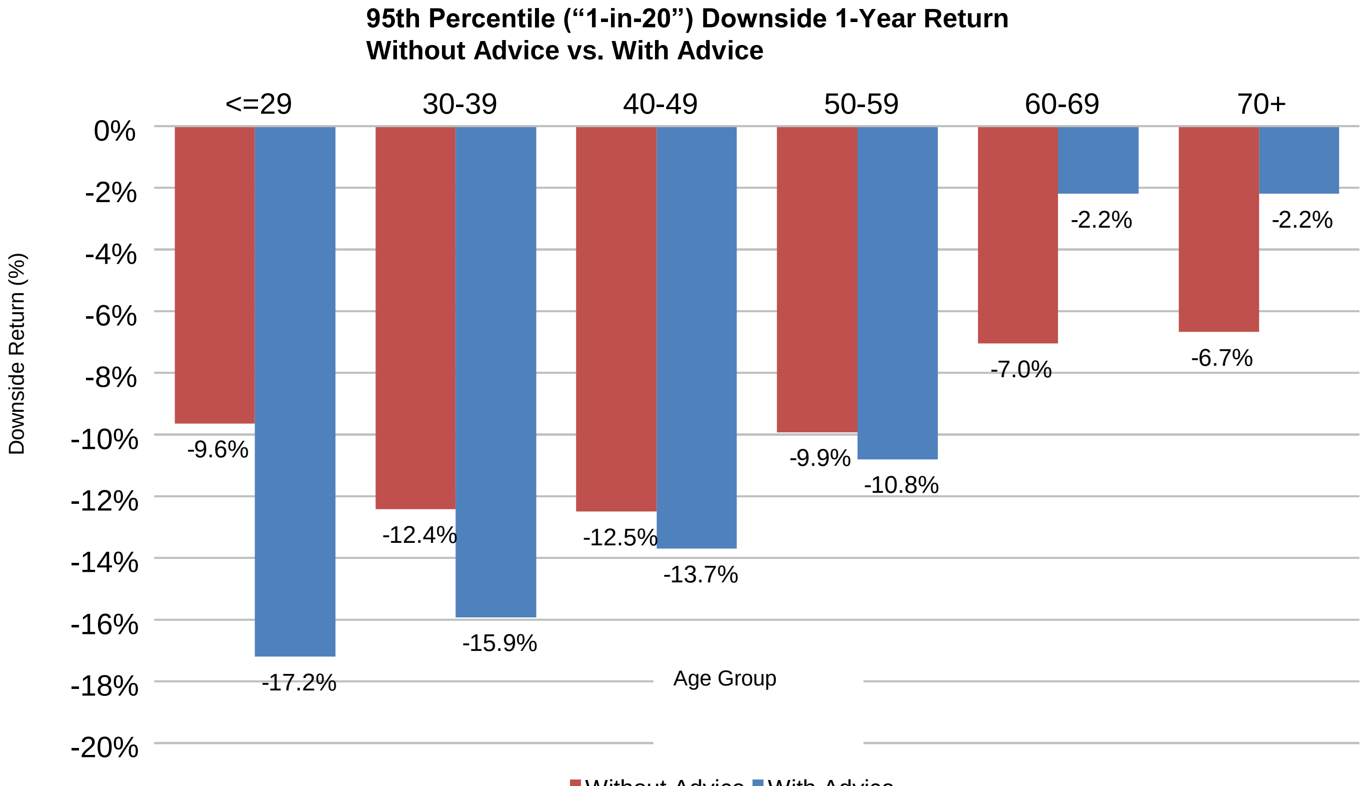
Allocation to Equities by Age Group
Without Advice vs. With Advice



Median Expected Portfolio Return
Without Advice vs. With Advice







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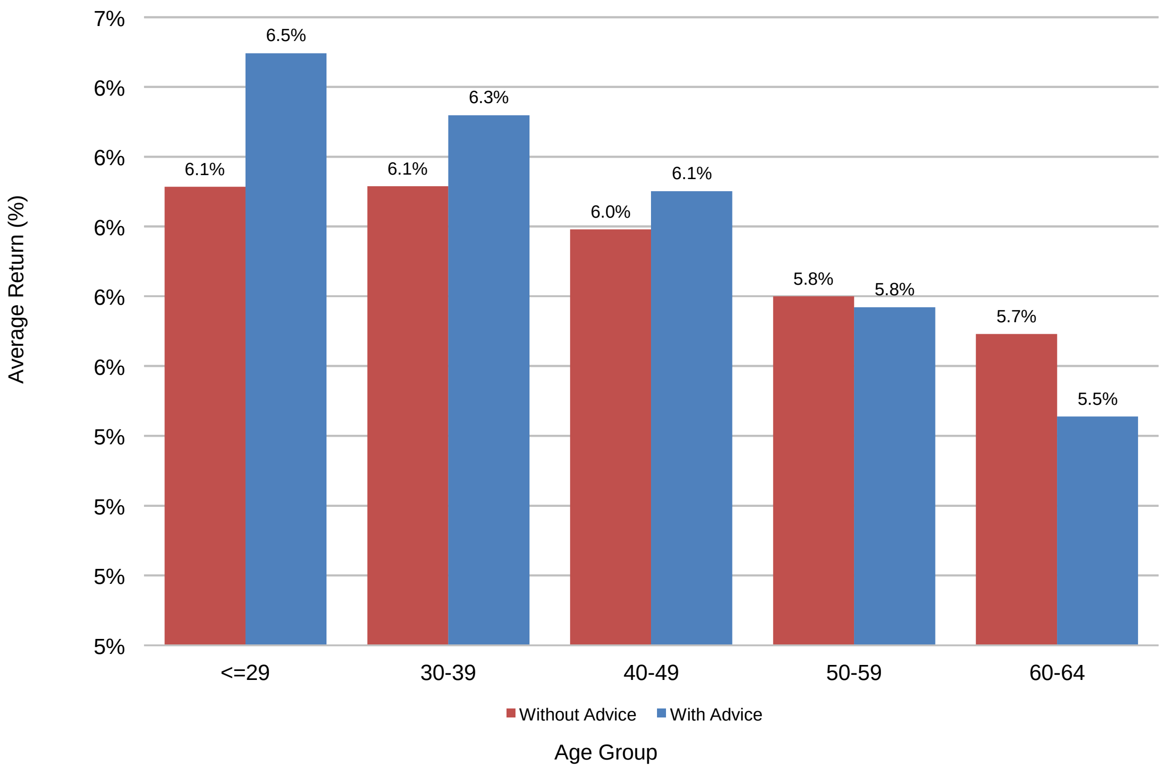
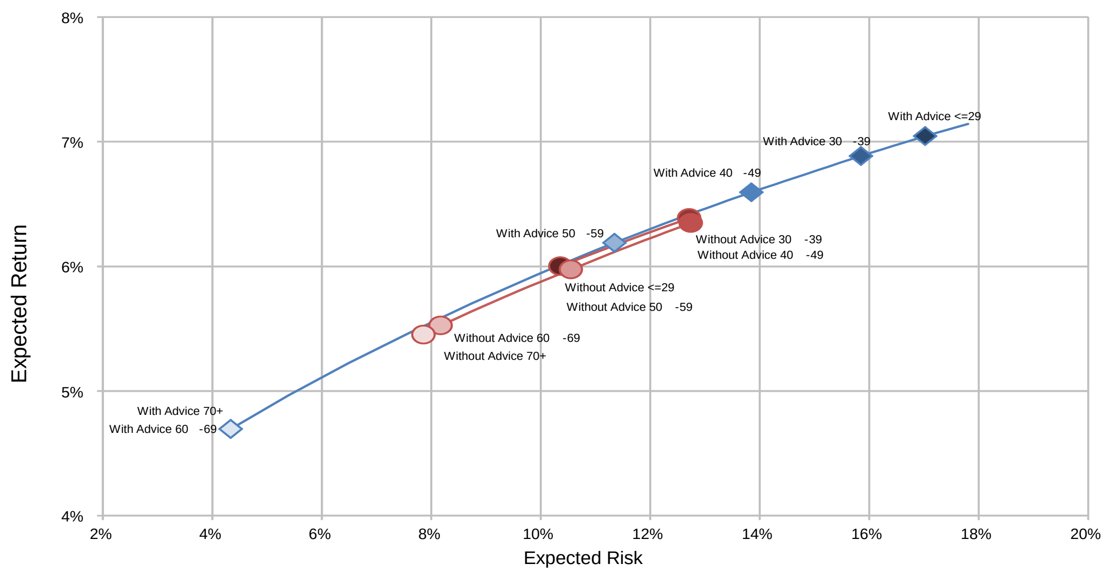
Average Annual Return to Retirement (Geometric)
Without Advice vs. With Advice



Portfolio Expected Return vs. Expected Risk by Age Group
Without Advice vs. With Advice



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Appendix II - Asset Allocation Impact When Factoring Outside Assets

Hypothetical Scenario Assumptions

Current Company matching scheme: 100% on first 3%, 50% on next 2%

Age 30: Female	Current 401(k) Allocation
$50,000 in current 401 (k) plan	5% Stable Value
Single	10% Diversified FI
No prior work	42% USLarge Cap
No external assets	18% US Small Cap
Savings rate 3%	25% Intl Eq

Current Salary: 50,000

Age 43: Male		Current 401(k) Allocation
$75,000 in current 401 (k) plan		27% Stable Value
Married		8% Fixed Income
$60,000 in spousal 401(k)	50% Emerging markets equity	34% USLarge Cap
	50% S&P 500 equity	12% US Small Cap
$25,000 in prior 401(k)	100% Stable Value	19% Intl Eq
Savings Rate 6%		
Salary: 75,000 Spousal salary: $65,000; retirement at 65 Spousal employee match: 4.5%; retirement at 65		

Age 62: Male		Current 401(k) Allocation
$250,000 in plan		74% Stable Value
Married (no current spousal income)		6% Fixed Income
$200,000 in spousal IRA $1,000 annual contributions	50% Core Plus Fixed Income 50% S&P 500	12% US Large Cap 3% US Small Cap
$400,000 out of plan (external) brokerage account	20% Cash 50% Core Plus Fixed Income 30% NonUS Dev Equity	5% Intl Eq
Savings Rate 10%		
Salary: 100,000		

Recommended Asset Allocations by Three Investment Advice Providers
(Based on Hypothetical Scenario Assumptions)

Age 30	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	42.0%	35.0%	37.0%	38.0%
Small Cap U.S. Equity	18.0%	23.0%	16.0%	18.0%
International Equity	25.0%	29.0%	22.0%	29.0%
Cash	5.0%	3.0%	4.0%	1.0%
Fixed Income	10.0%	10.0%	21.0%	14.0%
Expected Nominal Return	**6.7%**	**6.9%**	**6.4%**	**6.8%**
Expected Risk (Volatility)	**16.6%**	**17.2%**	**14.7%**	**16.6%**

Age 45	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	34.0%	35.0%	47.0%	30.0%
Small Cap U.S. Equity	12.0%	26.0%	19.0%	14.0%
International Equity	19.0%	35.0%	28.0%	21.0%
Cash	27.0%	3.0%	0.0%	2.0%
Fixed Income	8.0%	1.0%	6.0%	33.0%
Expected Nominal Return	**5.9%**	**7.2%**	**7.0%**	**6.1%**
Expected Risk (Volatility)	**12.7%**	**19.0%**	**18.3%**	**12.8%**

Age 62	Age Appropriate Target Date	Advice Provider # 1 Recommended Allocation	Advice Provider # 2 Recommended Allocation	Advice Provider # 3 Recommended Allocation
Large Cap U.S. Equity	12.0%	35.0%	33.0%	25.0%
Small Cap U.S. Equity	3.0%	35.0%	16.0%	10.0%
International Equity	5.0%	29.0%	20.0%	15.0%
Cash	74.0%	0.0%	5.0%	3.0%
Fixed Income	6.0%	1.0%	26.0%	47.0%
Expected Nominal Return	**3.5%**	**7.3%**	**6.2%**	**5.5%**
Expected Risk (Volatility)	**4.1%**	**20.1%**	**13.6%**	**9.9%**

Notes on table:

- The calculations above are for illustration purposes only.
- The “advice allocations” are provided by three investments advice providers based on provided hypothetical circumstances.

- The shown expected return/risk is based on Aon Hewitt Investment Consulting Capital Market Assumptions (Q32014) and is for illustrative purposes only.

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